Network Neutrality: What Is At Stake?

The Honors Program
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Table of Contents

ABSTRACT 1
INTRODUCTION 2
THE IMPORTANCE OF CLASSIFICATION 4
BRAND X 6
THE PLAYERS 8
Beginning's of the Internet 8
Voices for Network Neutrality- Users, Content Providers, Public Interest Groups, and More 15
Voices Against Network Neutrality- Carriers and More 18
IMPACT OF THE DEBATE 25
AUTHORS VIEW 35
REFERENCES 39

ABSTRACT

Network neutrality is the view that Internet users should have control over what content they view on the Internet. This principle was honored until 2005 when the FCC reclassified the technology that brings the Internet to its users. The purpose of this project is to gain insight into the net neutrality debate, examine what net neutrality really means to users and the potential long-term consequences the results of this debate could produce. I intend to demonstrate the need for network neutrality by providing the context in which network neutrality can be best understood. I examine the circumstances that led to the loss of neutrality as well as the origins of the Internet and the intent with which it was made available to the public. I then recognize and discuss the viewpoints of those on each side of the neutrality debate. Next, I address the impact the debate has had thus far and the reality of a non-neutral Internet. Lastly, I state my viewpoint on the issue and discuss the significant power and freedom neutrality represents to Internet users everywhere.

INTRODUCTION

When you pay for an Internet connection, to what do you expect to be connected? Do you assume you will have access to the same Internet as your neighbor? Do you assume you will have access to everything the Internet has to offer? Every website? Every blog? If you are the typical American Internet user, it is very likely you made precisely those assumptions. It is likely because until 2005 that was the only Internet users knew. Now, how would react if the sites you have access to and the speed at which they load were dependent on the how much you were willing pay? Or how much your favorite websites were willing or able to pay? As unbelievable as that possibility may sound, it is very much a reality, one that is all too quickly approaching. The open access consumers previously assumed is no longer a guarantee. What secured the equal access that users always took for granted was a principle called network neutrality, a principle which is no longer the law of the land. As a typical American Internet user, are you concerned? And to what extent are these concerns justified?

Network neutrality, net neutrality as it is commonly called, is an issue that affects all Internet users, whether they know it or not. Although to many the term is merely technical jargon, a simple Google or Yahoo search will tell even the most technology-challenged user that the topic has been a source of heated debate since 2005. At its core, net neutrality is about the openness of the Internet and the freedom it represents. It is the assertion that the consumers and not the carriers should be in control of the content their Internet provides. It is this principle that has allowed the Internet to become what we know it to be today. Without neutrality, some of today's most successful companies would never have come into existence. Small Internet start-ups, such as YouTube or Facebook, gained huge popularity through users stumbling upon the sites and spreading the word *virtually*, that is over the very same Internet. In a non-neutral environment the implementation of increased entry fees and tier packaging, such as those we see with cable, are more than likely, almost guaranteeing failure of small online companies. As presidential hopeful Barack Obama stated in an online forum, "Facebook, MySpace, Google might have not been started if you had not had a level playing field for whoever has the best idea" (as cited in Eggerton, 2007). This implementation of tier

packaging would be devastating, not only to those primarily Internet-based companies, but also those small "mom and pop" stores who use the Internet to increase their customer base.

Currently, the Internet serves as the greatest communication equalizer we have at our disposal. It is truly a democratic forum, something increasingly hard to come across. It is the only place where an independent blog can receive the same exposure as Amazon.com, where everyone has an equal voice no matter their monetary or social status. In today's society, a handful of conglomerates control the large majority of media outlets; this means you can go to countless media sources and still only hear a very narrow array of voices. The Internet is where everyone's voice, everyone's message, can be heard, at a time when newspapers, radio, and television continue to limit those same voices or messages. This is not something that users can afford to let happen.

This paper will examine both sides of the network neutrality debate and the consequences those results each could have. It will address how the loss of neutrality came to be, as well as the history and intent of the Internet itself. It will look at the impact the debate has had thus far, the public reaction, and the players on each side. In addition, I will present and defend my stance on the issue.

THE IMPORTANCE OF CLASSIFICATION

The principle of network neutrality reigned from the Internet's inception until the summer of 2005. This neutral treatment of all carried content stemmed from the rulings of the Federal Communications Commission which, prior to 2005, disallowed any discrimination regarding the Internet's traffic or access by telecommunications carriers (Markey, 2006). The preservation of neutrality is contingent upon the Federal Communications Commission's specified classification of broadband services. The regulations that services must adhere to are dependent on this classification as either an information service or a telecommunications service.

Although these terms are defined in the 1996 Telecommunications Act, the idea behind them can be found much earlier in FCC publications. What is referred to today as an "information service" is based on the FCC definition of "enhanced service". According to conclusions the FCC reached in the 1980s, an "enhanced service combine(d) basic service with computer processing applications that act on the format, content, code, protocol or similar aspects of the subscriber's transmitted information, or provide the subscriber additional, different, or restructured information, or involve subscriber interaction with stored information" (Rich, 2006, p. 225). The 1996 Telecommunications Act defined "information service" as "offering of a capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information via telecommunications, and includes electronic publishing, but does not include any use of any such capability for the management, control, or operation of a telecommunications system or the management of a telecommunications service" (as cited in Rich, 2006, p. 226). In laymen's terms, this means services under this classification are subject to very little regulation. When defined as an information service, a service in question has the **ability to control content**.

Like the definition for information service, the "telecommunications service" definition was also based on a decision reached in the 1980s. The inspiration for the telecommunications definition was that of a "basic service". A basic service is defined as "the common carrier offering of transmission capacity for the movement of information" (Rich, 2006, p. 225). The

logic of the 1996 Act envisions a "telecommunications service" as "the offering of telecommunications for a fee directly to the public, or to such classes of users to be effectively available directly to the public, regardless of the facilities used" (as cited in Rich, 2006, p. 226). An example of a telecommunications service is your telephone line. Classified as a telecommunications service, the carrier does not have control over what you say (content), it just provides the service. Given that users initially connected to the Internet through dial-up over the phone lines, there was little debate over the Internet's classification as a telecommunications service. The idea that users would not be in control of what they were gaining access to did not even occur to the users or creators of the Internet. But today, the great majority of Internet users are connected over broadband, also known as high-speed Internet access. Broadband comes in a variety of forms, most commonly digital subscriber line (DSL), cable modem, fiber, wireless, and satellite. The widespread use of these broadband lines, and recent re-classification of the cable modem systems and DSL access that control those lines as telecommunication services, hold dangerous consequences for Internet users.

BRAND X

While the loss of neutrality is correctly attributed to the Supreme Courts June 27th, 2005 decision on *National Cable & Telecommunications Association v. Brand X Internet Service*, one cannot ignore the other important events leading up to this monumental decision. The beginning of the end of neutrality can be seen as early as 2002, when the FCC reclassified cable modem services, which also provide Internet, as information services. This reclassification was brought on by the 9th Circuit Court of appeals decision in *AT&T Corp. v. City of Portland* two years prior. As the FCC had failed to classify cable modem services after the 1996 Act, the court came to its own conclusions. In the *Portland* decision the court found, "the pipeline provided by the cable modem operators was a telecommunications service and that the Internet access was an information service" (Clark, 2005, p. 235). It was in response to this decision that the FCC issued its *Declaratory Ruling* classifying cable modem services as information services, thus permitting providers control over content. The FCC's *Declaratory Ruling* sparked the attention of Brand X Internet, a small DSL service provider based out of Santa Monica, California. Brand X's tiny subscriber base of 350 allowed for a level of customer service difficult to find in the big name carriers. This extremely small customer base made it possible to provide its subscribers with individual attention. Given this, it was no surprise that its customers were extremely loyal and wanted to see the company's continued success. Brand X Internet is effectively a "mom and pop" Internet provider. The company held the opinion, as did many other independent Internet Service Providers (ISPs), that it should be granted access to the cable broadband lines the same way it was ensured access to phone lines under law. Brand X Internet, like most other ISPs, lease the lines they use from phone or cable companies. Without this access Brand X would, like those brick and motor mom and pops before it, be driven out of business. With its continued success at stake, Brand X and other Internet Service Providers appealed the FCC's *Declaratory Ruling.* The 9th U.S Circuit Court of Appeals agreed with Brand X Internet, and in October of 2003 found against the FCC, stating that cable modem services should be classified as both information and telecommunications services (Clark, 2005). The FCC subsequently appealed the decision and the consolidated cases of *FCC v. Brand X Internet Service* and *National Cable & Telecommunications Association v. Brand X Internet* reached the Supreme Court in June

2005. The highly anticipated decision was met by disappointment from all those promoting equal access. Unfortunately, for Brand X and Internet users everywhere, the Court's June 27th decision was consistent with the FCC's classification of cable modem services as information services. The Supreme Court's decision prompted the Federal Communications Commission to issue the *Wireline Broadband Report and Order* in August 2005. The Report states that in addition to cable modem services, DSL would also be classified as an information service. This came as tremendous blow to the countless publishers of Internet content.

In short, before 2005 broadband access was classified as a telecommunications service, which disallows censorship, restriction, or control of messages. This is the reason your phone company cannot bleep out what you are saying, no matter the topic of your discussion. This is true even if you happen to be talking with a friend about switching phone companies. The August of 2005 FCC re-classification of broadband access as an information service allows carriers control over content, similar to the way consumers can purchase cable packages allowing them only certain channels. This new classification gives Internet providers the power to control how fast certain sites load. It also allows them control over the sites you have the ability to visit over what are now "their" lines (Baran, 2007, p. 268). This deregulation has justly prompted many to advocate the *formal* re-instatement of network neutrality.

THE PLAYERS

The network neutrality debate consists of a number of players, but for the most part each falls into one of two categories, those for net neutrality and those against. In favor of network neutrality are the content providers, such as Google, Yahoo, YouTube, as well as public interest groups and most importantly, the users themselves. On the other side are the carriers, the large telecommunications companies who own the pipes that connect users to the Internet. Included in this category are household names such as AT&T, Comcast, and Verizon. These carriers have the most to gain if a non-neutral network remains. In addition, there is another set of players, those who developed the Internet. Their goals must also be considered. How the Internet emerged and the intentions behind it are important considerations to the network neutrality issue.

Beginning's of the Internet

To better understand the network neutrality debate it is important to acknowledge how the Internet and the World Wide Web came into existence, as well as the original intentions of those who developed these life-altering technological advances. If the public needs to listen to anyone in the current debate, it might as well be the individuals responsible for creating the medium in question.

Although the two are often confused, the Internet and the World Wide Web are actually different inventions. Vint Cerf and Bob Kahn, the men who published a paper entitled "A Protocol for Packet Network Intercommunication" in 1974, are widely credited with the development of the Internet. This paper laid the groundwork that allowed Cerf and Kahn to define the Internet Protocol (IP) and for the Internet to be brought into existence in 1983 (Moschovitis, Poole, Schuyler & Senft, 1999, p. 81 and p. 110). The fact that the Internet existed so early in the 1980s comes as a surprise to most. This is because many people think of the implementation of the World Wide Web as the beginning of the Internet, but in reality, WWW did not come into being until 1991. The World Web Wide is a hypertext system that Tim Berners-Lee developed in 1989 (Moschovitis, Poole, Schuyler & Senft, 1999, p. 162). Although both these contributions were unquestionably instrumental in the creation of present

day Internet, the Internet's origins go even further back in history. It is worth spending some time discussing the history of the Internet to acknowledge what the creators envisioned. For example, the Internet was initially developed for use as a communication tool, to allow its users access to information. This initial reasoning has been lost in the hyper commercialized society in which we live, but should not remain lost given the current changes in the Internet's very nature.

In 1958, President Dwight Eisenhower created the Advanced Research Projects Agency (ARPA). Originally part of the Defense Department, ARPA was testimony to President's Eisenhower respect for science and the research scientific advancements required. The President was known for his admiration of the scientific community, "He found scientists inspiring- their ideas, their culture, their values, and their value to the country- and he surrounded himself with the nation's best scientific minds" (Hafner & Lyon, 1996, p. 15). The President knew his personal strengths and weaknesses, and was wise enough to see the need to surround himself with people who possessed strengths different from his own. Created in the midst of the Cold War, ARPA felt immediate pressure to scientifically outdo the Russians. The government gave the department a substantial budget to advance the U.S. in the areas of space and missiles. The first director of ARPA, Roy Johnson, wanted nothing more than to see the United States land on the moon. Unfortunately, his zeal for military accomplishments gave the ARPA an undeserved reputation for setting goals that fell under military rather than scientific advancement. Later that same year the National Aeronautics and Space Administration (NASA) was created and NASA took on the responsibility of getting the United States into space. This change of assignments allowed ARPA to revisit its original mission. While we know NASA was successful in its endeavors, the work of ARPA is less widely known. Johnson resigned and ARPA set out to further "the nation's long-term 'basic research' efforts" (Hafner & Lyon, 1996, p. 20-22).

Over time, the focus of the ARPA shifted and the program began devoting time to computer science. J.C.R. "Lick" Licklider, a psychologist who envisioned computers' potential long before there was science to back it up, can take much of the credit for this shift. Licklider, an undeniably brilliant man, wrote a paper entitled "Man-Computer Symbiosis" in 1960. In it

and his many other works Licklider touched upon many revolutionary ideas. As Hafner and Lyon (1996) state:

> In a McLuhanesque view of the power of electronic media, Lick saw a future in which, thanks in large part to the reach of computers, most citizens would be "informed about, and interested in, and involved in, the process of government". He imagined what he called "home computer consoles" and television sets linked together in a massive network. "The political process", he wrote, 'would essentially be a giant teleconference, and a campaign would be months-long series of communications among candidates, propagandists, commentators, political action groups, and voters. The key is the self-motivating exhilaration that accompanies truly effective interaction with information through a good console and a good network to a good computer. (p. 34)

The McLuhan mentioned above is Marshall McLuhan, a well-known communication scholar. McLuhan coined the phrase "global village" which is now widely used to reference the Internet and the World Wide Web. As did Licklider, McLuhan saw the Internet as a means of communication on a large, "global" scale.

Licklider came to ARPA in October of 1962, not only as head of the command and control division, but also the behavioral science division. Although his stay was short, he resigned in 1964, the impact and vision he left behind was nothing short of remarkable. The addition of Bob Taylor to ARPA's staff after Licklider's departure marked one of the many steps toward the Internet we know today. While Licklider's work advanced the ability of users to interact with a computer, it was in part thanks to Taylor that the idea of networking the Internet became a reality. It is important to note that Taylor saw the development of a network as a tool to allow users to share resources, building from the foundation of open access that network neutrality represents. The impact Licklider's work had on Taylor was significant: "The idea of one computer reaching out to tap resources inside another, as peers in a collaborative organization, represented the most advanced conception yet to emerge from Licklider's vision" (Hafner & Lyon, 1996, p. 44). While Taylor proposed research on networking and obtained funding, it was not until he persuaded Larry Roberts to head the program that the idea started to become reality. Roberts created the outline of what would

become the first multiple site computer network, ARPAnet. While the initial work began in 1969, it was not until 1972 at the International Conference on Computer Communications (ICCC) that the scientific community at large knew of the technology. The general public did not become aware of the ARPAnet until three years after this. Unfortunately, the public's introduction to ARPAnet in 1975 was tainted with the simultaneous report that the network had been used to hide government secrets (Moschovitis, Poole, Schuyler & Senft, 1999, p. 88). The ARPAnet was not used in that deceitful manner, but the lie perpetuated another rumor concerning the creation of the ARPAnet was started. As Moschovitis, Poole, Schuyler & Senft state, the "ARPAnet was not, as is often repeated, created as part of some Cold War doomsday scenario….that the ARPAnet was really created by scientists who wanted to exchange information had been all but forgotten by the time it was up and running" (1999, p. 35).

Upon the foundation built by men such as J.C.R Licklider, Bob Taylor, and Larry Roberts, the Internet was finally born. "On January 1 (1983) the ARPAnet –and every network attached to the ARPAnet- officially adopts the TCP/IP networking protocol…From then on, all networks that use TCP/IP are collectively known as the Internet" (Moschovitis, Poole, Schuyler & Senft, 1999, p. 109). It was not long before the world got its first taste of the democratic values that allowed the Internet to grow. In 1986, the Cleveland Free-Net became open to the public. This historic event marks the first of many public networks that provide Internet access at no cost to its users (p. 135). While the Internet existed and was serving a significant number of people, roughly sixty-thousand, it was not until the World Wide Web came onto the scene that the Internet really took off. Although there is no comparing the amount of traffic the Internet saw in the early Eighties to today's usage, its value was no less remarkable. Even with its limited access, the Internet served as an extraordinary communication tool to tens of thousands. Used primarily by universities, scientists, and the military, information was able to spread at a speed never before seen. The vision Taylor had of researchers' afforded the opportunity to share their findings and avoid the cost of inadvertently duplicating experiments was finally being realized. This was how the Internet started, a small community using the technology as a means to communicate and share information. There was no attempt to control, no search for financial gain, only the excitement of the opportunity to spread

knowledge. Looking at how far the Internet has traveled away from its well-intentioned beginnings is disheartening. In the midst of today's network neutrality debate, it is worth revisiting the original purpose of the Internet. The community-based values the Internet held since its inception is what allowed it to reach an even wider audience. Those within the community were constantly looking for ways in which to expand this amazing technology. It was this spirit that fostered development of further technology, including the World Wide Web.

As mentioned earlier, Tim Berners-Lee created the WWW, and released it in 1991. It did not take long for the public to see the potential of this historic contribution. Instead of capitalizing on this technology, "he chose not to copyright and gain financially form his inventions, and Berners-Lee remains committed to preventing any single corporation from dominating the Web, a situation he thinks would destroy the Web's potential to remain a pubic, easily accessible means of communicating and gathering and offering information" (Moschovitis, Poole, Schuyler & Senft, 1999, p. 163). While Berners-Lee did make the WWW possible, in reality it is the users who made it was it is today. Berners-Lee developed the technology, but it is the people who made the Web into a community. It is thanks to users across the globe that the Web has evolved to become the content and information rich resource it is today. In fact, until 1992 the Web was "restricted to the job-related work of academics, scientists, and bureaucrats. Officially at least, the Internet was a noncommercial zone." Before 1992, the Acceptable Use Policy (AUP), a segment of the 1950 National Science Foundation Act, deemed the government-controlled Internet non-commercial (Moschovitis, Poole, Schuyler & Senft, 1999, p. 155). Although it is hard to picture an Internet without online shopping, the medium was still allowed to develop and thrive before it could be used for commercial purposes.

It is worth mentioning that all aspects of the Internet's history point to it as a medium belonging to its users. The government (we, the people) facilitated all the development, funding, regulation, and supervision of this groundbreaking technology. The government was able to achieve such incredible feats using money provided by taxpayers. These same tax-paying citizens contributed to the Web to make it the information superhighway we know

today. The phone and cable companies did not build the Internet; the public created it. Nevertheless, that does not stop the phone and cable companies from attempting to establish it as their territory today. An AT&T Chairman declared that the Internet passes over his lines, a statement that should anger users everywhere. The countless men and women who spent incalculable hours developing the technology that has allowed the Internet to exist did so with the intent of spreading information openly and freely. They most certainly did not intend for it to be available to and dictated by the highest bidder.

The network neutrality debate is first and foremost about the Internet and the World Wide Web, thus the views and intentions of those who created the technology should be recognized. Vint Cerf, one of the co-developers of the Internet Protocol, currently serves as Vice President and Chief Internet Evangelist for Google. Google has been one of the greatest proponents of network neutrality and even set up its own online guide to net neutrality for its users. Cerf goes as far to post the following quote on the guide page: "Allowing broadband carriers to control what people see and do online would fundamentally undermine the principles that have made the Internet such a success...A number of justifications have been created to support carrier control over consumer choices online; none stand up to scrutiny" (Google Help Center, Network Neutrality). In addition to this statement, the Google Help Center also lists the following statement from another instrumental figure in the Internet's advancement, Tim Berners-Lee: "The neutral communications medium is essential to our society. It is the basis of a fair competitive market economy. It is the basis of democracy, by which a community should decide what to do. It is the basis of science, by which humankind should decide what is true. Let us protect the neutrality of the net" (Google Help Center, Network Neutrality). Although Berners-Lee could have reaped unimaginable monetary gain from inventing the World Wide Web, he opted to let the Web remain free and open to the public, a choice that deserves strong consideration in the current debate. Berners-Lee "created the Web in a decentralized way that allowed anyone with a computer to connect to it and begin receiving and sending information" (Cohen, 2006).

In his book, *Weaving the Web*, Berners-Lee discusses the origins of the World Wide Web as well as his intentions when inventing the groundbreaking technology. His story goes far

beyond the complex science and technical expertise the invention required. Berners-Lee shares his vision of the Web as well as its role in society, a vision that embodies the values of network neutrality. In the early years of the Web's creation, the question of how and if the technology would be licensed was of great concern. Berners-Lee was then and still is in favor of open access for everyone, and has accordingly not used his creation for personal financial gain. Instead, he "agreed to allow anybody to use the Web protocol and code free of charge, to create a server or browser, to give it away or sell it, without any royalty or other constraint" (Berners-Lee, 1999, p. 74). This initial step to ensure the Web reached its full potential laid the foundation upon which the Web could grow. It did not take long for the rest of the world to recognize the amazing possibilities the Web made available. According to Berners-Lee (1999), the creation was so revolutionary it was even a topic of discussion at the 1995 meeting of the worlds' most prosperous nations (p. 102). The meeting, and the words spoken there, undoubtedly left a lasting impression on the Web's creator:

> The keynote speaker was Thabo Mbeki, deputy president of South Africa. Mbeki delivered a profound speech on how people should seize the new technology to empower themselves; to keep themselves informed about the truth of their own economic, political, and cultural circumstances; and to give themselves a voice that all the world could hear. I could not have written a better mission statement for the World Wide Web. (Berners-Lee, 1999, p. 102)

This vision of the Internet is not possible in a non-neutral environment. The new regulations would produce an Internet that is the precise opposite of what Berners-Lee envisioned:

> I click the Search button on my keyboard, or tell a search engine, 'I want to buy a pair of shoes'. It supposedly heads out onto the Web to find shoe stores, but in fact brings me only to those shoe stores that have deals with that search engine or hardware company. The same with booksellers. Insurers. News. And so on. My choice of stores and services has thus been limited by the company that sells the computer or runs the search service. It's like having a car with a Go Shopping for Shoes button on the dashboard; when pushed, it will drive only to the shoe store that has a deal with the carmaker. This doesn't help me get the best pair of shores for the lowest price, it doesn't help the free market, and it doesn't help democracy. (Berners-Lee, 1999, p. 133)

Berners-Lee wrote this passage in his book *Weaving the Web*, years before the 2005 decision that caused the loss of network neutrality. Yet even then, the fear of what could occur in a non-neutral environment weighed heavily on the mind of the Web's creator. The scenario that Berners-Lee describes is exactly what Internet carriers now have the power to do.

Voices for Network Neutrality- Users, Content Providers, Public Interest Groups, and More

"The Internet has been the place where Davids can take Goliaths, where someone without resources but with brains and guts and information can skewer the high and mighty. At a time in our nation's history when wealth and power are becoming more and more concentrated in fewer and fewer hands, it's been the one forum in which all voices are equal" (Reich, 2006).

A neutral network, having network neutrality, is usually what people think of when they consider the benefits of accessibility. It guarantees users that they are accessing the same Internet with the same information as any other Internet user in the world. For users, a neutral network means equal access to all the web offers and the choice of what sites to visit, whether your choice of news is CNN.com or an individual blog. In addition to the ability to see what is "out there", a neutral network also guarantees users a venue in which their voices can be heard. Users can create their own websites or blogs that has the same opportunity to reach the masses as Google, all for a minimal charge. It is precisely this opportunity that has fostered the innovation and success of today's top companies such as Google, eBay and YouTube, and it is the Internet America knew until the summer of 2005.

The potential consequences on a non-neutral Internet have prompted millions into taking action. Jeff Chester, founder and executive director of the Center of Digital Democracy, articulates some of these fears: "Instead of having a communications environment that promotes freedom, creativity and expression, we could witness a dwindling number of major corporations controlling the most powerful media outlets" (2007, p. 27). Support for network neutrality includes a long list of organizations, bringing together vastly different activists that have never before and will likely never again be on the same side of an issue. This is emphasized by United States Congressman Edward Markey (2007), "Net neutrality has

managed to unite groups such as Free Press, the ACLU, Moveon.org and the Gun Owners of America, the National Religious Broadcasters and the Christian Coalition" (as cited in Cullen, p. 1). Markey lists just a few well-known organizations that are currently fighting the battle to reinstate network neutrality. His point is an important one because it concerns the power of this issue to unit groups from opposite ends of the political spectrum. Any issue that garners support from both the ACLU and the Christian Coalition clearly is not serving a partisan political agenda. The only agenda that network neutrality is serving is that of the people and their right to freedom of speech. From the progressive and liberal left to the ultra conservative right, network neutrality is in everyone's best interest. Other supporters of network neutrality include web-based companies such Google, Yahoo!, eBay, Amazon.com, Facebook, Microsoft, Intel, Skype, EarthLink. Although these big companies might have the resources and ability to survive in a non-neutral environment, they fight for network neutrality on behalf of their users. In addition to the support of big companies such as these, hundreds of other smaller groups have come together to form the SavetheInternet.com coalition (Frequently Asked Questions, 2007, SavetheInternet.com). The SavetheInternet.com coalition provides a forum through its website to address the network neutrality issue, raise awareness, and provide a means for countless others to get involved in the cause. All members of SavetheInternet.com believe in the Statement of Principles, which is the foundation for the coalition:

> We believe that the Internet is a crucial engine for economic growth and democratic discourse. We urge Congress to take steps now to preserve network neutrality, a guiding principle of the Internet, and to ensure that the Internet remains open to innovation and progress.
>
> Network neutrality is the Internet's First Amendment. Without it, the Internet is at risk of losing the openness and accessibility that has revolutionized democratic participation, economic innovation and free speech.
>
> From its beginnings, the Internet was built on a cooperative, democratic ideal. It has leveled the playing field for all comers. Everyday people can have their voices heard by thousands, even millions of people. Network neutrality has prevented gatekeepers from blocking or discriminating against new economic, political and social ideas.

> The major telecommunications legislation now under consideration in Congress must include meaningful and enforceable network neutrality requirements to keep the Internet free and open to all (Statement of Principles, 2007, SavetheInternet.com)

While SavetheInternet.com and other organizations have done a tremendous amount of work to raise awareness as well as take action through other efforts, they are by no means alone in the battle for network neutrality.

Tim Wu, co-author of *Who Controls the Internet?,* has voiced his support for network neutrality in a number of forums. He is among the many who have blogged and written about the freedom the Internet represents and the necessity of network neutrality. One can find Wu's views in a number of venues, ranging from articles for the online magazine *Slate* to participation in debates for *Legal Affairs*. Early in the debate, Wu attempted to persuade others toward neutrality, "What must be banned are blocking, gratuitous discrimination, and choosing favorites. While it's one way to earn cash, it's just too close to the Tony Soprano vision of networking: Use your position to make threats and extract payments…If allowing network discrimination means being stuck with AT&T's long-term vision of the Internet, it won't be worth it" (Wu, 2006).

The alliances that network neutrality has encouraged speak to the issue's significance. Liberals and conservatives alike are fighting for neutrality, as they believe that it ensures that their voices on every issue will be heard equally on the Internet. Neutrality is especially important to small businesses and groups as well as individual website holders, because without it phone and cable companies could increase the costs required to ensure the fastest delivery of content to users. If such price increases are put into effect it would be the little guy who is hurt most. It is the small innovative start-ups, the "next big things" will be those unable to pay to have their website or product appear on computers around the world, and thus will unlikely be brought into existence. Big name companies like Google and Amazon.com would have no trouble footing the bill, but they too choose to fight for network neutrality. They do so, not only because it is the smart move financially, but because a neutral

network is what's best for users everywhere. Without government regulations guaranteeing a neutral playing field, the Internet would no longer be the great equalizer it has been.

Voices Against Network Neutrality- Carriers and More

"I am not convinced that deviations from network neutrality will necessarily harm consumers and innovation. On the contrary, competition and innovation might be better served if policymakers embraced a 'network diversity' principle that allows different network owners to pursue different approaches to routing traffic" – Christopher Yoo (Yoo & Wu, 2006).

Despite the far-reaching support for a neutral network, there are those who are against making network neutrality into law. The most public figures on the side of a non-neutral network are the cable and phone companies such as AT&T, Comcast, and Verizon. These media giants are also among the leading companies bringing Internet into American homes. Given their position, they have a lot to gain by increasing their control over how Internet comes into their customers' homes and businesses. AT&T Chairman Edward E. Whitacre Jr. made the following statement, which only served to fuel the outrage of network neutrality advocates, "They don't have any fiber out there. They don't have any wires…They use my lines for free—and that's bull. For Google or a Yahoo or a Vonage or anybody to expect to use these pipes for free is nuts!" (as cited in Stern, 2006). This statement suggests AT&T intends to charge these content providers more than in the past, a change that network neutrality advocates feel would ultimately harm users. Chairman Whitacre's bold assertion, not surprisingly, incited outrage from users everywhere. While it is true companies such as AT&T invested in the cable wires, the people paid for what those wires carry. Still, according to Stern (2006), Whitacre could have a valid point. Companies like AT&T do not see corresponding increases in revenue when search engines like Google increase their bandwidth use (p. B01). This causes the leading carriers to develop a little resentment toward those websites like YouTube who dominate a significant percentage of bandwidth, slow the network down, but pay the same fee as anyone else. Given this, it makes sense from a business perspective that carriers like Comcast, AT&T, and Verizon would want to charge more for those websites that take up more bandwidth. Network neutrality proponents have a

number of problems with this argument. A great majority of network neutrality supporters believe that carriers can lay little claim to the lines. Companies such as AT&T may have invested money to build the "pipes," but neutrality supporters argue this does not give carriers the right to say what information can travel those "pipes". If these companies claim to offer Internet access, they must offer the Internet in its entirety without the power to pick and choose what a non-neutral environment affords. Representative Edward Markey persuasively expresses the reasoning behind this point of view in a 2007 speech:

> AT&T was offered, in 1996, the opportunity to build the Internet. They were offered the contract to build it. But they turned it down. Now let me ask you this: what has AT&T done since then to develop the Internet? The answer is: nothing. What has Verizon done to help invent the World Wide Web? Nothing. What did they do in order to invent the browser? Nothing. These companies did virtually nothing to develop anything that has to do with what we now know as the Internet today. (as cited in McChesney, 2007, p. 181-182)

What makes the connection valuable to the people is the Internet on the other end of the line. The users are the ones who created the Internet, they published the content, and the "pipes" would lead to nothing if not for content generated by users. Given this context, Whitacre's claim that Google or Yahoo should not be allowed to use *his* pipes is ludicrous. A bigger concern for network neutrality proponents is if AT&T and its competitors establish policies to increase pricing for increased bandwidth use, it would in a manner of speaking open Pandora's Box. An innovative idea that has incredible potential would be impossible to realize if the inventors could not afford the cost of bandwidth necessary to see the invention succeed. The most terrifying reality is that there would be no stopping the carriers in this trend. There would be nothing to stop the cable and phone companies from instituting other requirements for increased pricing, or simply slowing down or blocking websites unable or unwilling to pay more for a faster load time. Nothing to stop them from favoring one site over another, for example diverting searches to Ask.com rather than Google because the former was willing to pay for the agreement. It is these possibilities that have caused such a strong uprising against a non-neutral network.

Just as websites such as SavetheInternet.com have popped up in favor of network neutrality there have also been sites voicing the other side of the issue. Advocates of a non-neutral network include organizations such as Hands Off the Internet, Consumers for Cable Choice, Internet Innovation Alliance, and Progress and Freedom Foundation. Independent, conscientious citizens do not spearhead the majority of these groups despite what their promotion and apparent goals would lead consumers to believe. If consumers were to look at the origins of these groups they would see that most, if not all, are not the grassroots activists they claim to be. In actuality, the big telecommunication companies fighting against network neutrality fund the majority of these groups. Karr (2007) states:

> Throughout the year, companies like AT&T, Verizon and Comcast have funned millions of dollars toward "Astroturf" front groups such as the disingenuously named Netcompetition.org, Hands Off the Internet, and The Future Faster. For example, Hands off the Internet-- which sounds like a citizens group to protect the Internet from gatekeepers-- is actually a telco-baked lobbying group that spends hundreds of thousands of dollars on video PSAs and "grassrootsy" Web campaigns aimed at eliminating efforts to restore Net Neutrality protections and spread open access.

These misleading campaigns sponsored by less than trustworthy sources taint the argument of those who truly believe a non-neutral network is best for the United States. Aside from those who have a financial stake in a non-neutral network, those advocating it are difficult to find. In addition, the underhanded way opponents of network neutrality are fighting only serves to fuel, as well as validate, the arguments against them.

What impact a non-neutral network will have on our nation is one of the key questions in the network neutrality debate. Whether its implementation will be damaging or beneficial to Internet users is where the divide occurs. The advantages of a non-neutral network are not what drive arguments against a neutral network. Instead, the potential negative outcomes of a neutral network give the arguments fuel. Tom Schatz (2007) of Citizens Against Government Waste (CAGW) states, "Over-regulating the telecommunications industry will have detrimental effects on the diversity of goods and services provided while wasting billions of tax dollars. The newest innovations will come about because of less- not more- government

intervention" (as cited in Anonymous, p. 1). What CAGW fails to acknowledge is that up until the deregulation of 2005, the government played an instrumental role in regulating the Internet. They claim deregulation will bring about an increase of innovations, when it will likely do the opposite. The key element that CAGW and others against regulation are missing is that the "regulation" the government imposed does not fit with the common conception of regulation. Typically, a regulation asserts control and limits freedom. This is not the case with the Internet; on the contrary, regulation was in place to *ensure the expansion of freedom.* In his book *Communication Revolution,* Robert W. McChesney (2007) states, "Conceptually, Net Neutrality is the First Amendment for the Internet" (p. 181). That said, network neutrality should not be viewed as additional regulation, but merely a means of enforcing the First Amendment. Alexander Meiklejohn, a noted free expression philosopher, has done a great deal of work on behalf of freedom of speech. We can look at some of his writings in the network neutrality context to see that neutrality legislation does not actually qualify as regulation as typically understood. For example, Meiklejohn has argued:

> First, let it be noted that, by those words [the text of the First Amendment], Congress is not debarred from all action upon freedom of speech. Legislation which abridges that freedom is forbidden, but not legislation to enlarge and enrich it. The freedom of mind which befits members of a self-governing society is not a given and fixed part of human nature. It can be increased and established by learning, by teaching, by the unhindered flow of accurate information, by giving men health and vigor and security, by bringing them together in activities of communication and mutual understanding. And the federal legislature is not forbidden to engage in that positive enterprise of cultivating the general intelligence upon which the success of self-government so obviously depends. On the contrary, in that positive field the Congress of the United States has a heavy and basic responsibility to promote the freedom of speech. (as cited in McChesney, 2007, p. 74)

Using Meiklejohn's view that Congress has a responsibility to promote the freedom of speech, allowing a non-neutral network would be a violation of the First Amendment. Adhering to this reasoning, codifying network neutrality back into law would not be a limiting regulation but rather an expansion of freedom. Despite this reasoning and history to support it,

Citizens Against Government Waste (CAGW) is not the only group concerned about the long-term impact of network neutrality legislation.

Many concerns regarding network neutrality stem from the potential economic effects. Scholars T. Randolph Beard, George S. Ford, Thomas M. Koutsky, and Lawrence J. Spiwak's 2007 article *Network Neutrality and Industry Structure* concerns the economic impact of network neutrality based on an economic model of their own creation. They do not acknowledge support or opposition to network neutrality, but present a number of potential dangers if legislation requiring neutrality is re-instated. Their findings on network neutrality are based on the assumption that the laws imposed would create commoditization (Introduction & Summary). According to Beard, Ford, Koutsky, and Spiwak (2007), it is possible for "a Network Neutrality rule to have the intent or effect of 'commoditizing' broadband transmission and Internet access services by limiting the ability broadband service providers to differentiate their service offering from those of rival firms" (Introduction). The authors' analysis shows that commoditizing broadband access "is likely to deter facilities-based competition, reduce the expansion and development of advanced communications networks, and increase prices" (Introduction). The logic for these arguments is that if network neutrality is brought back into law broadband access would again be treated as a telecommunications service, also known as a common carrier. The authors' concern is that under this classification, ISPs would have little room to distinguish themselves among their competitors and thus new carriers would be unlikely to enter the market. The authors examine a number of scenarios where the consequences of network neutrality rules would be detrimental to society. In their conclusion, they warn readers and policymakers of the downside of making network neutrality law. They go as far to say, "Our analysis suggests that Network Neutrality rules that promote commoditization of broadband access services will be inefficient and harmful if such rules deter efficient entry" (Conclusion). The underlying worry is that a neutral network would not be conducive to new entrants and thus inhibit an innovative environment. This worry is somewhat negated by the fact that until 2005, a neutral network was the law and innovation still thrived. A neutral network provides every user with equal access. This disallows ISPs from offering packages granting access to pre-selected websites. This practice, a form of differentiation, would not be possible with net neutrality

and thus limit ISPs from competing in this area. While carriers claim this limits their options, mandated equality enhances the innovation of the Internet itself, benefiting all of the Internets users. The authors claim that neutrality would limit further entry does not account for the ISPs that a non-neutral network would drive out of business. Small companies such as Brand X could not survive in a non-neutral environment, and the authors make no suggestion as to how these new entrants could succeed.

Opponents of network neutrality often mention the possible economic consequences of a neutral network with the hope that they have the potential to shape the network neutrality debate. This argument that a neutral network will decrease innovation and new entrants is not new and Christopher Yoo, one of the most outspoken opponents to network neutrality, has frequently made this assertion. However, Bill D. Herman contests claims made by Yoo and other network neutrality opponents in his article *Opening Bottlenecks: On Behalf of Mandated Network Neutrality*. Herman (2006) states, "Even if we suppose that broadband is a frictionless commodity market, new entrants can erode those profits, but they can rarely afford to charge low enough prices to achieve a market share comparable to that of the current monopolist. The telecommunications market, of course is far from frictionless; it involves substantial sunk costs" (p. 152). Herman continues, "Yoo's prediction , an immediate future populated by a diverse array of broadband networks featuring highly customized features and content, defies both history and accepted economic theory" (2006, p. 152). Herman asserts that this future would not be possible because without network neutrality new ISPs would not have access to the existing broadband lines. The current market leaders have already invested in those lines and thus are able to provide Internet access for a lower price than a company that would undergo the building costs of new lines. To prove his point Herman (2006) cites the following:

> Indeed, under both Republican and Democratic Administrations, the FCC respected the efficiency and possible inevitability of natural monopoly in the market of physical, fixed wire links to households…The FCC's goal has routinely been not to insist that competitors always bypass bottlenecks, such as building redundant local access, but instead that bottlenecks be shared where what would be a means to the end of competition in services offered to end users (p. 152)

Given this information, the only fair way to ensure competition is to allow equal access to the lines. If small and large ISPs can lease the same lines, then competition will be in the form of service and cost, not what portion of the Internet users will be able to access.

Some make the argument that a non-neutral network would encourage competition; however, there is little to substantiate that claim. In fact, shortly after the deregulation of 2005, Matthew Yglesias contended the United States' drop in "most wired" ranking was likely a result of our loss of a neutral network just when other countries instated it. Yglesias (2005) commented on the improved ranking of other countries, "It turns out to be nothing more than those countries' decisions to adopt a successful policy of encouraging competition through open access to infrastructure- at roughly the same moment the United States began to abandon it". At the time of Yglesias article in 2005, the United States was ranked the 13th "most wired country" according to the International Telecommunication Union. Since that time, the U.S has continued to fall behind the rest of the world, only further disproving the claim that network neutrality harmed competition. In 2007, the Organization for Economic Cooperation and Development reported the United States dropped to an upsetting 15th in the broadband world ranking. The FCC and others in the industry found this new statistic understandably upsetting. Upon hearing the news, FCC commissioner Michael Copps stated, "It's a national embarrassment and the only way to change it is to develop a broadband strategy like every other industrialized nation has already done" (as cited in Schatz, 2007). With growing evidence that a non-neutral network will not create the competitive environment that neutrality opponents anticipated, neutrality supporters hope it will only be a matter of time for the FCC sees the error of its ways.

IMPACT OF THE DEBATE

The change of network neutrality status in 2005 prompted a great deal of controversy and subsequent action. The public reaction has shown itself through blogs, newspapers, magazines, books, petitions, television and, obviously, appearances in Congress.

One of the first official attempts to turn network neutrality back into law was the Network Neutrality Act of 2006. Democrat Congressman Edward Markey of Massachusetts introduced it on May 2, 2006. Congressman Markey, who serves as Chairman of the House Subcommittee on Telecommunications and the Internet, has been one of the biggest advocates for network neutrality. Also backing the bill as cosponsors were Representatives Rick Boucher (D-VA), Anna Eshoo (D-CA), and Jay Inslee (D-WA). The bill would have prevented many of the most feared consequences of a non-neutral network, most notably the loss of a nondiscriminatory Internet (Markey, 2006). Although the Network Neutrality Act of 2006 did not pass because of almost unanimous Republican opposition, others have not been deterred from making similar attempts. Over a year later, a spokesperson for the Congressman reports Markey will soon be submitting a slightly different version of the bill (Mark, 2007). This report was later proved accurate when on February 13, 2008 Representative Markey introduced the Internet Freedom Preservation Act. Representative Chip Pickering (R-MS) introduced the bill alongside Markey (Internet Freedom Law Will Keep Internet Open for Future Innovators, 2008). With the control of the House now shifted from Republicans to Democrats there is reason to believe this bipartisan bill will be more successful than its predecessor, as net neutrality proponent, Markey, a democrat, will have even more influence over his colleagues.

Representative Markey is not the only member of Congress who sees the need for a network neutrality bill. Senator Olympia Snowe, Republican from Maine, and Senator Byron Dorgan, Democrat from North Dakota, also introduced similar legislation in 2006. Like Congressman Markey's, their bill was unsuccessful, but that did not stop them from reintroducing it in 2007. A January 2007 press release announced that Senators Snowe and Dorgan had introduced their Internet Freedom Preservation Act. Similar to the Network Neutrality Act of

2006 proposed by Markey, this bill would also prohibit discrimination on a number of fronts, most notably content. As of yet the bill has not received a hearing (Senators Dorgan, Snowe Introduce Legislation to Preserve Internet Freedom, 2007). The alliance of a Republican and a Democrat in the bill's introduction is just another example of network neutrality's ability to span the political spectrum. It is important to note that such bipartisan efforts provide further evidence that network neutrality is not merely an unnecessary, left winged attempt to stir up trouble, as some conservative commentators would have citizens believe.

In addition to activity in Congress, there are many others organizing to advance the network neutrality cause. Free Press, a nonpartisan organization, has done a tremendous amount on behalf of network neutrality and is one of the driving forces behind SavetheInternet.com. One of the most significant endeavors thus far is a petition that a number of organizations submitted to the Federal Communications Commission. Its filers were Free Press, Public Knowledge, Consumer Federation of America, Media Access Project, Consumers Union, Information Society Project at Yale Law School, Professor Charles Nesson, Faculty Co-Director, Berkman Center for Internet & Society, Harvard Law School, and Professor Barbara van Schewick, Center for Internet & Society, Stanford Law School.

The petition's intent was to draw the FCC's attention to violations of the current Internet Policy Statement. The petition specifically deals with the violations by Comcast, the country's number two provider of high-speed Internet and an opponent of network neutrality. The violations in question are those uncovered by the Associated Press about the treatment of peer-to-peer file sharing network BitTorrent. The petition provides the FCC with a straightforward persuasive argument. It clearly states the three violations committed by Comcast, why they should not have occurred, and disprove the reasoning Comcast has used to justify its actions. The violations are as follows:

1. Violation 1: Consumers are Entitled to Run Applications and Use Services of Their Choice
2. Violation 2: Consumers are Entitled to Access the Lawful Internet Content of Their Choice
3. Violation 3: Consumers are Entitled to Competition among Network Providers, Application and Service Providers, and Content Providers (Petition for Declaratory Ruling, 2007, Table of Contents)

In its conclusion the petition recommends that, "The Commission should declare that Internet service providers cannot intentionally degrade any applications, and that such discrimination is not reasonable network management. It should also declare that misleading the public about such discrimination is deceptive" (Petition for Declaratory Ruling, 2007, p. 34). Throughout the petition the authors make it clear that if the FCC does not take action against these violations the "FCC's Policy Statement would mean nothing" (Petition for Declaratory Ruling 2007, p. 28). It appears that the Federal Communications Commission is taking these voices to heart. On January 14, 2008, the FCC announced it had launched an investigation to evaluate the complaints of the petition as well as an official complaint against Comcast submitted by Free Press this past November (FCC Investigates Net Neutrality Violations, 2008).

In addition to web-based awareness campaigns and action in Congress, the network neutrality case has also made appearances on television. In the Public Broadcasting Service (PBS) program "Moyers on America" segment entitled Net @ Risk, host Bill Moyers, among others, discussed the network neutrality debate and its potential consequences for the average citizen. Bill Moyers began the segment with the following introduction:

> I'm Bill Moyers. Welcome to the revolution - the Internet revolution. It's changing our lives as we speak, or click, or delete, or link. In just a decade, it's made sending and receiving information easier than ever. It's opened a vast new marketplace of ideas and it's transforming commerce and culture. The Internet is revolutionary because it is truly democratic, open to anyone with a computer and connection. We don't just watch; we participate, collaborate, and create. But this wide-open access could be slipping through our fingers.
>
> The Internet has become the foremost testing ground where the forces of innovation, corporate power, and government regulation converge. Already its founding principle - the notion of a level playing field, or what's called Network Neutrality - is under siege by powerful industries trying to tilt the field to their advantage. It happened, remember, to television, radio, and cable; it could happen to the Internet.

> But citizens are fighting back; last spring they flooded Congress with more than one million petitions with a single refrain: "Save Our Internet." That was the beginning of a movement that has kept the outcome in play. (Bull & Karr, 2006)

The episode promoted the argument of neutrality and provided viewers with countless reasons to get involved in the campaign. Included in the episode was almost every major name in the network neutrality debate. The fact that this segment aired on PBS, a noncommercial network, is important to point out. PBS is a nonprofit organization devoted to educating the public; its support of network neutrality further demonstrates that neutrality is in the public's best interest.

Given the headlines that the network neutrality debate has generated, it is no surprise the issue is making its way into the 2008 Presidential election. In a series of interviews, Michael Arrington of *TechCrunch* spoke to both Republicans and Democrats regarding current technology issues, including network neutrality. Democrats Barack Obama and John Edwards are firm in their support on network neutrality, while Republican John McCain takes a wait-and-see approach:

> I believe that if we do not guarantee net neutrality, the Internet could go the way of network television and commercial radio-with just a few loud corporate voices and no room for the grassroots and small entrepreneurs
> –John Edwards (Arrington, 2007).
>
> I will take a backseat to no one in my commitment to network neutrality. The Internet is the most open network in history. We have to keep it that way
> –Barack Obama (Arrington, 2007)
>
> The great thing about the Internet is that it has enjoyed, to a large degree, immunity from federal interference and federal regulation. So, I have a tendency to say, look, let's see how this thing all turns out, rather than anticipate something that, a problem that so far has not arisen in any significant way. I know that sounds a little bit equivocal, but it has a lot to do with my reluctance to use, my inclination to use government intervention only when it's absolutely necessary
> –John McCain (Arrington, 2007)

The Internet has appeared in the 2008 Presidential election not only as an issue, but also as an effective campaign tool. More so than in any election before, candidates are using the Internet to reach a wider, younger audience. A deputy campaign manager for Republican Senator John McCain told the *Washington Post*, "We can only buy so much TV time, we can only physically go to so many states, so we need to rely on the Internet to get our message out and engage with our supporters" (Vargas, 2008). Just this past July the popular website YouTube and respected news station, CNN, co-hosted an event for Democratic presidential candidates. The first time event allowed users to submit questions through YouTube that the candidates would then answer in the CNN broadcast. This allowed the average citizen to be more involved in a presidential debate than ever before. This type of event would not have been possible without adhering to network neutrality. A website such as YouTube would likely never have come into existence had it been subjected to a non-neutral environment. The open forum the Internet facilitated is just one of the great advantages that a neutral network ensures. Although the event did exhibit a certain degree of control, the questions were screened, the technological advances and changing preference of media it represented is remarkable. Some candidates, most notably Ron Paul, have achieved the bulk of their success through a devoted Internet fan base. Paul, whose chances of securing the Republican nominee were admittedly slim, gained a substantial number of supporters by utilizing the Internet's potential. Without the support obtained through his use of the Internet, it is unlikely he would have stayed in the race as long as he did. In addition to the Internet's impact for individual candidates, it is also a leading source of election information for voters. In fact, "for adults under 30, the Web is now the leading source of political news, ahead of TV, newspapers and radio" (Kovner, 2008). In a society such as ours, where citizens rely on the Internet to give them not only accurate but full information, much more so than any other medium, network neutrality is imperative. If the big companies are controlling not only your television, but also your Internet, the great majority of citizens may not even hear about candidates like Ron Paul and political discourse will suffer.

The interest in network neutrality by some of the leading Presidential candidates is a good sign for the issue's advocates. Given the primarily Republican opposition, the current

resurgence of Democrats in the House and Senate bodes well for the future of network neutrality. If the trend continues and a Democrat enters the White House, network neutrality may finally find its way back into law. The two leading Democratic candidates, Hilary Clinton and Barack Obama, have both expressed support of network neutrality legislation. Although the issue does have strong Democratic support, there are also Republicans who are fighting to see network neutrality enforced. Given this, the fate of neutrality will not be solely determined by which party takes control in November. Even for those who currently are not advocates of neutrality because they do not see the need, such as John McCain, recent events may give them reason to change their minds. As McCain is the Republican candidate, the public must hope that the abuse the country has seen thus far of the non-neutral policy will be enough to warrant his "absolutely necessary" support.

The fears held by many about the potential consequences that deregulation allowed are slowly being validated. Three of the biggest opponents to network neutrality, AT&T, Verizon, and Comcast, have all made headlines in the past year for abusing the non-neutral environment in which they currently conduct business. These three major incidents, all of which occurred within a three-month time span, have been used by neutrality advocates to justify their initial concerns and prove that the issue of neutrality was not a "solution in search of a problem" as their opponents have insisted.

The first incident occurred in August 2007, when during an online live performance by the band Pearl Jam, AT&T censored a portion of the show when the lead singer made disparaging comments regarding President Bush. Although AT&T did apologize, the fact that it has the power to censor Internet content without any legal consequences and suffer little more than bad publicity is disconcerting (Bray, 2007). AT&T claimed its only policy is to censor extreme profanity and the censorship was a mistake. Given that stated policy, it is hard to justify why the internet provider censored the following lyrics of Pearl Jam's song "Daughter": "George Bush, leave this world alone" and "George Bush, find yourself another home". This type of control over content is what the network neutrality debate is all about. The actions exhibited by AT&T serve to rationalize the fear that in the very near future dissenting voices may not have the opportunity to be heard. Viewers were not alone in their

anger over the Internet provider's actions; the band also took offense to the censorship. Pearl Jam released the following statement, "If a company that is controlling a Webcast is cutting out bits of our performance- not based on laws, but on their own preferences and interpretation- fans have little choice but to watch the censored version. What happened to us this weekend was a wake-up call, and it's about something much bigger than the censorship of a rock band" (as cited in Van, 2007).

Open Left, an online news, analysis, and action website, conducted an interview with FCC Commissioner Michael Copps shortly after the Pearl Jam incident. When asked, "Is there anything preventing a company like AT&T from doing this to content generally or generically on the internet?" Copps gave the following response:

> Well not really. We have to have some guarantees for how this technology is going to be utilized. Keeping it open, keeping it accessible to everyone. That doesn't imply any excessive governmental control over anything, it just means have some rules of the road to ensure it remains the small 'd' democratic platform that it has become. We are seriously in danger of going down another road and it seems to me if you look back over history, if you have the power, the technology to do something, and you have a commercial or business incentive to do it, you can be damn sure someone's going to try it somewhere down the line. That's what we're seeing here. And I think also that had we not had this debate over network neutrality that you'd probably be seeing a lot more of this. I think some of these companies have been on better behavior than they might otherwise have been. But you know, if they ever got the green light where we're never going to have network neutrality then I think our problems will really proliferate. (Stoller, 2007)

Just a month later, Copps fears were confirmed when Verizon was involved in its own censorship controversy. The popular phone company took it upon itself to block text messages sent by NARAL Pro-Choice America to customers who had agreed to receive the messages. The reason Verizon gave for this censorship was that it deemed the messages too controversial (Connor & Brown, 2007, p. C.1). Republican Senator Olympia Snowe, a network neutrality supporter, spoke out on the issue, "It basically would be no different if you had a telephone company interrupt your telephone conversation because they didn't like what

you were talking about" (as cited in Bray, 2007). NARAL Pro-Choice America had requested a "short code" used by a variety of organizations to allow cell phone users to text to the five-digit number in order to receive further messages. Although other leading carriers accepted the request without a problem, Verizon would not grant NARAL the "short code". When the incident became public knowledge, it generated outrage from Verizon customers. One customer, Wyn Hoag, told the *New York Times*, "I'm a supporter of abortion rights, but I could be a Christian-right person and still be in favor of free speech. If they think they can censor what's on my phone, they've got another thing coming" (as cited in Liptak, 2007). In response to the public outcry and bad publicity, Verizon followed AT&T's lead and reversed its decision. It explained, saying, "The decision to not allow text messaging on an important, though sensitive, public policy issue was incorrect" (as cited in Liptak, 2007). While Verizon, like AT&T, reversed its censorship, the claim that each incident was an error is a hard pill to swallow. A more likely scenario is that these powerful companies are testing the non-neutral environment to see what they can get away with. The dangerous fact is that just because public outrage is preventing companies from acting in a discriminatory manner now, there is no reason to believe this submission to the demands of customers will continue. The public can only rebel against what they are aware of, and if these companies are controlling the media platforms through which we receive our information, there is no limit to what they can get away with. We can never know what we do not know.

The third incident involved the well-known Internet and cable provider, Comcast. While Comcast has been accused of other violations, as mentioned earlier with the Free Press petition, the one receiving the most publicity is the discrimination against file transfers made with BitTorrent, a peer-to-peer network that allows users to exchange files. Bray (2007) writes, "In October [2007], an investigation by the Associated Press revealed that Comcast's high-speed Internet service deliberately slows down file transfers made with a program called BitTorrent, which is commonly used to swap large movie and music files. Comcast customers had not been informed of the policy" (p. C.1). Although programs like BitTorrent can allow for illegal uses, such as pirating copyrighted materials, most users have come to rely on the program for legal file sharing. Comcast claims its actions were simply an appropriate use of network management. This network management took the form of delaying uploads

attempted by BitTorrent customers. One of the most disturbing aspects of this discovery was not that Comcast was doing this without users' knowledge, but that it did so in an unmistakably deceptive manner. Peter Svensson (2007) writes, "Each PC gets a message invisible to the user that looks like it comes from the other computer, telling it to stop communicating. But neither message originated from the other computer- it comes from Comcast. If it were a telephone conversation, it would be like the operator breaking into the conversation, telling each talker in the voice of the other: 'Sorry, I have to hang up. Good by'." Comcast's violations have become a prominent example of what a non-neutral network can mean, and in response to the official compliant made by the Free Press, the FCC has launched an investigation into Comcast's behavior. It did not take long for Comcast do display its true colors yet again. The company stooped to the level of paying people off the street to stack the seats at a public hearing held by the FCC to discuss the issue of network neutrality, thereby denying access to others who legitimately wanted to attend. The intention of this meeting, held at Harvard Law School, was to allow the public an opportunity to voice concerns and hear the facts of the debate (Kerry, 2008). Just has Comcast violated the intentions of the Internet, it violated the intentions of the meeting. Senator John Kerry (D-MA) comments, "Trying to lock out the public is a great example of why we need net neutrality. If the other side will use their money to restrict public access to a public meeting, how can we feel confident they won't use their power to restrict voices in the virtual world?" (Kerry, 2008). Kerry's point is an important one, the public has too much to lose to continue to allow these companies to govern the Internet. The good news is the power of the public has not yet been completely lost. In response to the outrage over the BitTorrent violations Comcast has issued a compromise. The top Internet provider declared it would work with BitTorrent, no longer insisting its treatment of the program was "reasonable network management" (Bosworth, 2008). Comcast Internet users across the nation should hope the Commission sides with the public in the current investigation and put this type of behavior to rest.

The Internet giants mentioned in these events are not the only Internet providers generating controversy in this new non-neutral environment. American Online (AOL) has already started practicing behavior that proponents of network neutrality fear most. AOL has allowed large e-

mailers to avoid going through the filters that prevent junk mail from reaching customers if they pay a higher fee. This increases the already sizeable amount of junk mail users receive with only AOL reaping the profits. AOL users almost immediately recognized the potential negative consequences of such an agreement. Not willing to take this treatment without a fight, they created DearAOL.com Coalition. AOL's response was to abuse its power in an even more deceitful way by blocking e-mails that mentioned the coalition, if only for a short period of time (Goldsborough, 2007). With actions like these, there is little reason to trust that providers will not take further advantage if they are allowed to operate in a non-neutral environment indefinitely. The abuse of power these providers have already exhibited should be a wake-up call to those not currently following the debate.

AUTHORS VIEW

After evaluating the considerable amount of information available concerning the neutrality of the Internet, it is difficult not to be in favor of network neutrality. Although I did assume this would be the case when I began this project, I was committed to going into the research with an open mind. The evidence, however, gives little support for promoting a non-neutral network, and my initial hypothesis was confirmed. While there may be a number of supporters for a non-neutral network, it is not their voices speaking out on the issue. It is not their voices using the very medium they are trying to control. The articles in favor of neutrality far outnumber those against it, but this alone was not enough on which to base my opinion. I looked at the arguments and evidence contained in those articles, determined their merit, and evaluated how I believe the Internet should function.

What the issue of network neutrality boils down to is the people's right to freedom of speech. As previously discussed, Meiklejohn, a great believer in the First Amendment, thought all media from newspaper to radio, belong to the people. He rejected the commercial aspect that overtook the traditional use of media, writing, "The primary purpose of the First Amendment is, then, that all citizens shall, so far as possible, understand the issues which bear upon our common life. That is why no idea, no opinion, no doubt, no belief, no counterbelief, no relevant information may be kept from them." (as cited in McChesney, 2007, p. 74). He most certainly would have wanted to see the Internet used to its fullest potential. Network neutrality is what guarantees the possibility of achieving that potential. Without neutrality, the intentions of the First Amendment will be pushed aside for the sake of monetary gain.

Those in favor of network neutrality have the advantage of using a good-versus-evil narration to pull people into the cause. They are able to claim they are fighting for the people, fighting for freedom of speech, fighting to protect the power the Internet holds to communicate. This willingness to fight proves the potential the Internet holds is of such great magnitude we cannot risk it being stifled. Put simply, it is easier to fight on the side of neutrality. Even though in many situations the easy thing is not the right thing, this debate does not fall into that category. It is easy to fight for network neutrality because the possibilities a neutral

network affords are far more indispensable than any possible downside. Although some may argue neutrality has its faults, they provide little to substantiate their assertion; the good far outweighs the alleged bad. How the Internet should be governed comes down to the purpose the people believe Internet serves. The carriers see the Internet as a medium through which they make their profit, just like cable companies. From this perspective, it makes sense they would want, for example, to charge more depending on the bandwidth their customers use. In contrast, as a customer, you are likely paying for the service of connecting to the Internet, not for what you see once you get there. As a customer the Internet is inherently yours, not something your cable provider created for you. What the big-name carriers fail to recognize is that the Internet was not their creation. Although they own the "pipes" through which it is funneled, they should not be able to control the content customers view or post. The analogy Tim Wu (2006) uses compares the Internet superhighway and the literal highway, "How would you feel if I-95 announced an exclusive deal with General Motors to provide a special 'rush-hour' lane for GM cars only? That seems intuitively wrong".

There is a reason it seems wrong. The Internet is an interactive medium, constantly being changed by its users; this is what separates it from other media such as television and newspaper. Individual bloggers do not need to obtain sponsorship or permission in order to create their own daily column as they would in a printed newspaper or magazine. The government paid for the research that ultimately gave rise to the Internet. It did so with money from the taxpayers, from the users. In addition, those scientists who created the Internet and the World Wide Web did so for the people, to create an unprecedented forum for communication. Tim Berners-Lee believes that "any one company's attainment of it [dominance] would destroy the Web as we know it" (Berners-Lee, 1999, p. 132). The intent was for the Web to be "a universal medium for sharing information" (Berners-Lee, 1999, p. 84). This intent cannot be disregarded simply because it gets in the way of a profit. The backing network neutrality has received from key members of Congress further demonstrates its importance. The Internet may have been initially created by men such as Cerf, Kahn, and Berners-Lee, but what the Internet is today was created by the people. The people have played a significant part in its evolution, and this evolution was made possible because of the Internet's principle of equality.

I believe in the power of free speech that the Internet holds. As so many others have said before, it really is the last open forum we as citizens have to ensure every voice on any and all issues can be heard. The incentives for carriers such as AT&T, Comcast and Verizon to fight for a non-neutral network are significant, and from a purely business perspective I cannot fault their attempts to maximize their profits. However, I can fault them with their deceitful tactics and abuse of power they in meeting that goal. The fact that carriers are corporations with the sole goal of maximizing revenue is precisely why we need network neutrality. The evidence demonstrates that the people cannot trust the carriers to govern a medium so integral to preserving our freedom. There have been arguments written in favor of a non-neutral network; each one speaks about the alleged horrors a neutral network can generate. For every argument that appears to make a legitimate point there are many discrediting it. The key points used by opponents of neutrality, mainly the potential of increased competition, do not hold up under close examination. Each case made for a non-neutral network does not warrant the loss of freedom that would be necessary for it to occur. This is demonstrated by Tim Wu in various writings as well as Bill D. Herman in his article *Opening Bottlenecks: On Behalf of Mandated Network Neutrality*. Aside from these scholars,' countless articles, blogs, and posts have been written by conscientious citizens warning of the dangers a loss of neutrality would incite. No such outcry can be found on the side of non-neutrality. In addition, the actions of the big companies that favor non-neutrality to further their cause have been unsavory. The creation of fake grassroots organizations and websites that advocate for a non-neutral network is simply non-democratic, as is the attempt to pack a public hearing. This type of deceitful behavior serves to fuel the drive of neutrality supporters.

It difficult to see how any rational thinking citizen could be willing to leave such a powerful medium in the hands of those who could commit such acts. When one is aware of the facts, there is little choice in which side to choose. Without network neutrality, innovation will be stifled, freedom of expression will be limited, and the lines of communication will be cut. The astonishing capability the Internet once held to connect the world would be turned into yet another way to make a buck. This is not what the Internet was created for, and users cannot allow their creation to be taken from them. Users need to reclaim their Internet before it is too

late. There is too much at stake. Users need to stand up for their First Amendment rights, because without freedom of speech there will not be an opportunity to stand up for anything else.

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