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The Net Neutrality Debate: What Effects Does it Have?

The United States has always been known to be an innovator. Its biggest innovations and contributions to the world have been those in the technology field. One of the most influential sectors that these advancements have been made in is the Internet. The Internet, a simple, yet powerful tool, has “…over 1.7 billion users”, which makes it “…an indispensable medium” (Roxberg 2). The Internet, as a tool, has always been open and fair, with any and all Internet traffic treated the same. However, in January of 2014, laws regulating and keeping free competition were abolished (Nagesh 1). Previously, “For almost a decade, the concept of net neutrality, a network design principle which states ‘that a maximally useful public information network aspires to treat all content, sites, and platforms equally’ (Wu, n.d.) [sic]” (Ly, MacDonald, Toze 2), protected the Internet from unfair fees, price hikes, and unequal treatment of content. “Today, the future of the Internet and its historically open nature is the issue of a hotly contested debate known as net neutrality, the concept that all web content should be treated equally.” (Roxberg 2), which is the reason so many, one million in fact (Jefferies A), have risen up against the Internet Service Providers (ISPs) who are against the rules of an open Internet. These citizens have signed a petition towards the notion of preserving an open and fair internet.

Many of the ISPs have already tried to impose different fees and restrictions on their networks in the past, such as throttling data based on where it is coming from (Gilroy 4), or trying to make a better profit by changing their fees and policies (Ly, Bertrum, MacDonald 6). Among all these events and opinions, the question arises: What is the effect felt from the lack of net neutrality rules, and would we need a reinstatement of these rules to continue the fair competition in the United States? What type of revisions should be made to these laws to make sure fair competition as well as business is still had with the providers and customers?

In “Understanding The Net Neutrality Debate: Listening To Stakeholders”, Ly, MacDonald, and Toze’s piece expands on how important the Internet is today, staying that it is a vital tool “…for innovation, financial growth, and democracy” (1). It has become a innovative and necessary technology in businesses, as well as creating new markets to help boost the US economy. One of the major influences it has is in business startups. Startups are businesses that are built especially to explode with growth, and many of the newer ones see success through the Internet and rely on it to expand in the future. Startups rely on funding from venture capitalists, because they need initial funds to get their idea out there, and to get their feet on the ground. However, venture capitalists recently have become wary of investing in some of these startups, especially ones that may require more bandwidth (the transmission capacity of their data over the Internet) because of recent changes being made.

One investor voiced his opinion, and real-world decisions made by his venture capital firm: “Brad Burnham, managing partner at venture capital firm Union Square Ventures, told *Technology Review* that his firm plans to “stay away from” media-heavy startups as a result of FCC chairman Tom Wheeler’s proposed net neutrality rules, which would allow ISPs to charge those businesses extra for the bandwidth required to develop or distribute their products” (Neagle 1). What he says is true: cable companies are more able to charge for these high bandwidth uses, such as delivering high quality video over a network, or transferring large amounts of data at a time, because net neutrality laws are not in place. This would prevent companies and startups such as YouTube, Vine, and Snapchat (all different apps and services that provide high definition video to be sent and viewed) gaining investments simply because the potential of data that they may use is higher than that of a company such as Foursquare, an app that focuses on point of interest discovery, and relies mainly on text input from users to gain marketshare and usage. Foursquare was able to reach “…100,000 users with a mere $25,000 budget”, simply because the Internet access needed for them to spread their product was free, and didn’t cost a lot to them as a startup company (Talbot).

To better understand the issues behind these rulings, background information as well as a better understanding is needed. Net neutrality is the term often used to describe the rules of the Internet that the citizens want, but what does it mean? Net neutrality is the idea that Internet traffic, data and bytes going from point A to point B, are to be delivered without any meddling by Internet service providers. Net neutrality also states that it is “…[required by] broadband providers to treat all Internet traffic equally” (Neagle). This movement has long been supported by big name companies, especially those that want to be able to serve all their customers, as well as make sure that the Internet remains open and free. Another way of defining it is thus: net neutrality focuses on the idea of any and all internet traffic, regardless of size, monetary position of the company, or location, should get to and from the main points of access for free, undiscriminated, and without throttling from the Internet Service Providers.

As it has been a more recent issue, with most of the rulings occurring in the past four years, net neutrality has had those fighting for and against it. Cable companies are at the forefront of the opposition to these rules. One of the famous rulings started out with the FCC ruling against a ISP’s, Comcast, policies:

In perhaps one of its most significant actions relating to its Internet Policy Statement to date, the FCC, on August 1, 2008, ruled that Comcast Corp., a provider of Internet access over cable lines, violated the FCC’s policy statement when it selectively blocked peer-to-peer connections in an attempt to manage its traffic. This practice, the FCC concluded, ―unduly interfered with Internet users’ rights to access the lawful Internet content and to use the applications of their choice. (Gilroy 4)

In this landmark court case, the Federal Communications Commission decided that although Comcast had the control over their services, the practice of selectively picking users and blocking their internet connections based on what kind of connections they were making, was ruled to not be allowed. This decision was met with approval of the users of Comcast’s internet service, despite opposition from Comcast. When Comcast had started blocking and slowing down users that connected in a certain way, others felt that this went against the basic rules of an open internet. However, these blocks that were put in place by Comcast were to benefit themselves as a business, as it was “…[attempting to] manage network congestion”(Gilroy 4) when these blocks were put into place. This benefited Comcast’s business because it was a way for them to manage the congestion, or high traffic, on their networks. This decision was eventually overturned however, with “[the appeals court], in an April 6, 2010, decision, ruled (3-0) that the FCC did not have the authority to regulate an Internet service provider’s (in this case Comcast‘s) network management practices …” (4). This was because of Comcast’s service being a business – where the model depends on them making money – allowed them to make decisions that benefited them as a business.

Being a business is one of the main arguments used in the case against net neutrality. These service providers need to make a profit, and building an infrastructure of wires and data centers is not a cheap undertaking. Internet service providers, however, are classified under the same laws that regulate phone companies, tv companies (many offering both), and power companies. This premise of regulating the Internet providers was thus: “Under the Communications Act, the FCC had traditionally regulated some telecommunications companies by deeming them common carriers … which imposes extensive tariff-filing duties, permits the FCC to set maximum and minimum prices and monitor the management of the businesses, and allows consumers to bring civil suits in federal court against any regulated entity that charges unreasonable rates or otherwise violates these duties” (TELECOMMUNICATIONS LAW 5). these are known as ‘Common Carrier Laws’, and helped prevent unfair competition, disadvantages, and unhappy consumers. Common carrier laws have existed for many years in modern America, as a tool to help prevent companies having too much power, and a conflict of interest with the public. They are mainly required for companies that are used and sometimes required for the American public, such as phones, power, and water. (Telecommunications Law 5) Because of their influence on the public, and the necessity of such services, the FCC can intervene when deemed necessary from petitions, public outcry, or when a monopoly is detected. This was the precursor to the suits against Comcast when it imposed the network restrictions to assist in preventing network congestion. Although it may have benefited them monetarily, as a common carrier, the laws are made to protect the consumer from practices from the companies such as unfair billing and prices. The justification behind limiting their business practices stems from this argument: these companies provide a service that citizens depend on, and because of the cost of such businesses, there are not many players in the market. In order to prevent monopolies, the United States puts laws to somewhat limit their practices, and make sure to help competition when there is a need for it. Comcast should be allowed to limit what kind of data is traversed across their networks, because as a business, it is in their best interests to make sure cost of operation is low.

Consumers on the other hand have a right to what they believe is needed when it comes to the services they pay for. When the net neutrality laws that were in place became obsolete because of the FCC, customers, businesses, and corporations all reacted differently, but the main voice was disappointment. Petitions were signed, some receiving one million signatures (Jeffries A) letters were written to congressmen, and Washington was filled with phone calls from concerned citizens. In fact, so many phone calls and emails were sent to the FCC as a reaction to this change that “…their system could not handle it.” (Flowers, Zeese). These citizens were concerned because the changes would lead to their internet traffic not being treated the same, much like Comcast had already done with limiting peer-to-peer connections on their network. Broadband heavy services such as Netflix would be limited and throttled, and customers could end up paying more for services they were already using. One example actually became evident, when a customer recorded a video that showed the difference between them streaming Netflix using their ISP’s, Verizon, delivery servers, and then another video by using an Internet Proxy, a service that masks the origin of someone when accessing content. What it revealed was shocking, and infuriated users. Colin Nederkoon discovered that “[the] Netflix video streamed at 375 kilobits per second, kbps (or 0.375 mbps – 0.5% of the speed I pay for) at the fastest” (Putney). He then went to use a VPN service, (A virtual private network, a secure way in which you can access the Internet through a private, personal network that also assists in masking your identity online) which changes the location on the network where Netflix is accessed from. In doing this, he found that his streaming speeds went up to 3000 kbps, which was ten times faster than what he was getting by simply using his Internet Service Provider’s servers. This is one of the many examples of what could happen when there is not net neutrality, service providers feel the need to have companies like Netflix pay them superficial fees in order to deliver Netflix’s content to its subscribers, or else their content is throttled by the service provider.

When it comes to content coming from a provider to the consumer, there are a lot of factors in play here. YouTube is an example of a huge data conglomerate, with data servers all over the world. Google, their parent company, released a website that shows a behind the scenes look at how data is delivered from them to their users. Google explains, “When you click play, YouTube carries the video data through its system to your Internet Service Provider (ISP) via the most efficient path possible. Sometimes, exceptional circumstances mean we may need to use a less-direct path.” (Google). YouTube is an example of a service that uses large amounts of data, and transfers that bandwidth using data to their customers. And if the conditions are not right, that data has to be slowed down, or compress, making videos look pixelated, take forever to load, or skipping. This is a prime example of what service providers are doing to certain service: they slow down, and de-prioritize YouTube’s traffic to the end user. Doing so not only causes the consumer to become frustrated with their service, but sometimes may have the user lash out at YouTube and Google instead of the real problem, their service provider. Meanwhile, the service provider forces YouTube to have to pay more to them to allow their traffic to get through faster, in the so called ‘internet fast-lane’, and although Google may be able to afford this, another startup or service that does not have the same monetary position as Google might not have the financial power to pay ISP’s more to deliver their services.

As research has gone on, it has been found that there are not simply two affected parties in the net neutrality debate. Many factors are involved in the Internet, from the two main contributors: the Internet consumer and Internet provider, to the businesses in-between, corporations, small businesses, and startups are all affected by net neutrality, as it is a vital part of their functions. Figure 1 sourced from Ly’s piece shows a simple chart that explains how net neutrality effects everyone, but also shows the progression towards what some of the involved parties want. Consumers lean more towards the open side, as they want their usage to be unmonitored, and un throttled; making sure they have the equal amount of service as others despite content. Businesses may want to limit some content, but do not want to have to pay more to get their data to users, especially if costs skyrocket. As shown in many of the research documents, Internet Service Providers themselves are a big impact in this debate, not only with them providing services, but their business perspective with these services. They are supposed to compete and provide new services, but instead, they focus on the power they have most of the time over the market. In Canada for example, “…five companies — Bell, Rogers, Shaw, Telus, and Videotron — control 96 percent of the market (Geist, 2011).” (Gilroy 5), which makes it difficult for users to choose between the different services. This is not the type of competition that is wanted in the United States. The Unites States is infamous for its capitalist system, where anyone and everyone can contribute to the economy and market, so long as customers and users choose them over other goods and services. This is what drives the argument for an open Internet: it’s seen as another form of communication, and delivery of a product, which should be free and open for anyone and everyone in the competing market.

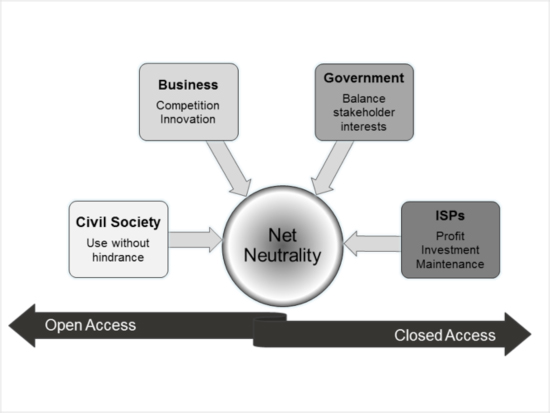
The debate for net neutrality is not a simple argument. The many factors that are in play with the issue prevent it from being solved easily through a single law being passed. Internet service providers are businesses, and need to make decisions that are in the best interest for their company to survive. At the same time, they need to provide customer service in a clear and present way, without impeding on their customers use of the service simply because of how they utilize it. Customers have to expect something when they sign up for a service, and that level of service, as well as openness of the service, and freedom of access is what makes the internet such a vital tool. Just because one customer is using their internet to read books and articles does not mean their traffic should be any faster than someone who is watching videos or uploading high quality content. The effects of having no internet rules have not been fully felt however, but with the absence of laws that regulate the internet as open and free, the future can only tell what will happen with companies like Netflix being charged more, and Internet service providers causing their customers grief because of their choice of what to throttle. In the coming months and years, dependent on laws in place, and lack thereof, the online community will see the effects of net neutrality not being fully present. The researched effects found so far for this research paper have found to be somewhat violative; with new laws being passed everyday, new customer incidents being announced, and different benefits and disagreements about net neutrality. One example of this being the customer service practices shown by Comcast; as they lure customers to stay committed to the services offered by the company (Jeffries B), or by cell phone carriers implementing features that go against the rules of an open and equal internet, like providing a ‘fast lane’ for free music streaming. Through these events unfolding, this has been found to be the best way, although not ideal, to figure out the effects of a closed internet, and see the benefits of an Internet that would be open and fair, as net neutrality dictates.

Figure 1: Stakeholders in the net neutrality debate (Ly 4).

Net Neutrality has seen to provide many benefits to the Internet as tool for the consumer, but some of these open rules are very costly to Internet Service Providers. Transferring large files to and from users can raise costs, and data providers should have to pay to get their content, which is gigabytes in size, to their customers as compared to a service just providing text. This is why Internet service providers may sometimes charge their users more, because it actually costs more, and the amount of data transferred can cause ISP operations costs to rise significantly. Users on the other hand, should have a right to the free and open internet; as it has become an essential tool in the modern world. Businesses depend on it, students use it every day for research, and millions of dollars are spent and earned because of it. The Internet as a whole is not a simple device or service to regulate, with servers existing across countries, borders, and states; there is not an easy way to go about making sure people are adhering to the laws. But research has shown that the United States should move towards supporting a more open internet, rather than a closed, monetized internet controlled by monopolized corporations. If not, then the information obtained using it will not be free, competition will not be fair, and huge media conglomerates will have control over what users see, can use, or buy online.

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