

Net Neutrality and the Monopoly on Information  
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The Internet today is a vast ocean of data being downloaded, uploaded and transmitted all over the world at lightning fast speeds. Our current dependence on technology has become so fundamental that we are now considered to be living in the “Information Age.” Not only is the breadth of information seemingly limitless, but is also readily and quickly available in a way that would have astounded the world a mere thirty years ago. There are many arguments as to who “invented” the Internet. Some argue that J.C.R Licklider, an MIT professor and an employee for the Defense Advanced Research Projects Agency (DARPA), first discussed the idea of a “Galactic Network” and later helped form the first data-sharing network named the Advanced Research Projects Agency Network (ARPANET).(1) Others may argue that Tim Berners-Lee and the scientists at the European Organization for Nuclear Research (CERN) invented the web with its first “Web Page” and web server.(2) Yet, regardless of who receives the bragging rights, the original purpose of the Internet has been agreed upon: it is a tool that allows users to instantaneously share and distribute information on a global scale.

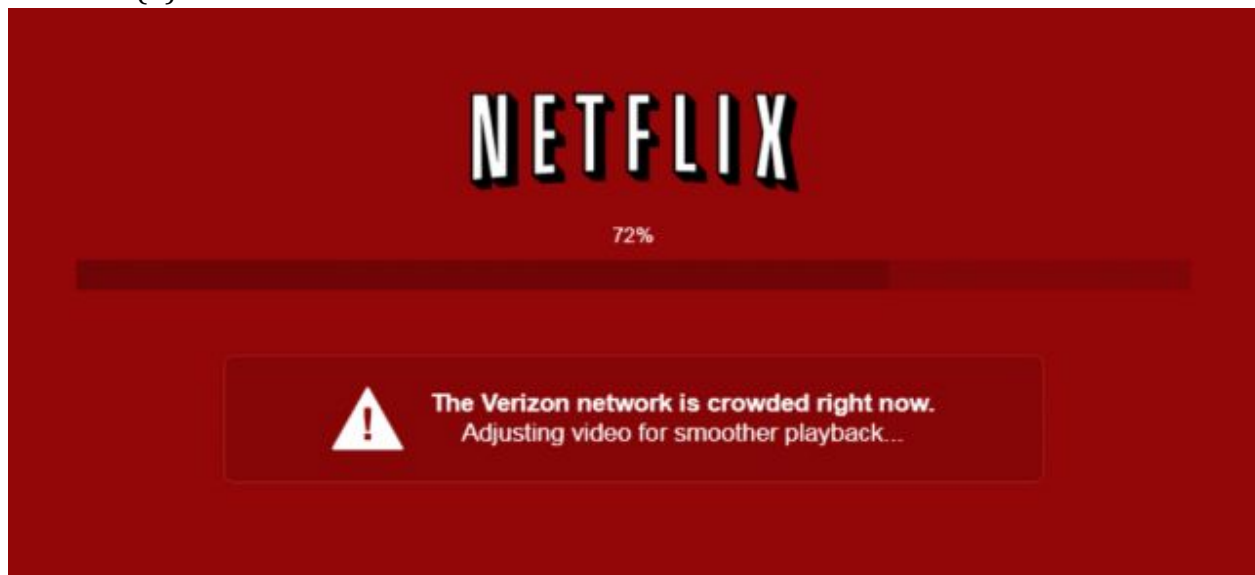
Right now, the world relies on the Internet. Financial institutions use pattern analytics to predict changes in markets, the medical industry uses instantaneous data transfers to provide the most effective and powerful treatments to patients, and ad agencies tailor their ads to the individual consumer based on their online activity. It certainly is of no surprise that our reliance upon the Internet will only continue to spread throughout every aspect of our lives. The Internet provides the most powerful platform for information sharing that has ever existed, and the freedom to access that information is widely available at all levels of society. However, with the Federal Communications Commission’s recent ruling, that freedom is now in jeopardy.

The landscape of the Internet changed on January 14, 2014, when the *Verizon Communications Inc. v. Federal Communications Commission* verdict was announced. During this case, Verizon successfully challenged the Net Neutrality laws in the U.S. Court of Appeals, bringing down the Federal Communications Commission's (FCC) previous Net Neutrality standing on the grounds that the laws overstep the authority of the federal government.(3) “Net Neutrality” is the principle that service providers, such as Comcast and Verizon, must enable access to all digital content regardless of the source - without favoring or blocking particular products or websites. In other words, Net Neutrality supporters advocate that all information and data must be treated equally. This is to prevent cable companies from becoming content gatekeepers who have the power to shut down websites at their whim or from turning the Internet into a service with a pay-to-view structure similar to that of cable television. Due to how central the Internet is to our economy and society, these laws carry tremendous relevance to anyone who uses the web. The recent ruling ended in Verizon’s favor, based on the argument that the federal government cannot dictate how cable companies treat the data running through their infrastructure. Netflix, one of the companies who would suffer from such a ruling, claims that Verizon did not wish to pay for the necessary competitive upgrades to its infrastructure and would rather shift these costs onto Internet companies and subscribers.

This means that Verizon and other similar enterprises will be able to charge Internet companies (such as Facebook or Twitter) millions of dollars in additional tolls based on “commercially reasonable discrimination.” In doing so, this almost guarantees that small start-up sites will not want to exceed an undetermined level of traffic out of fear that doing so will cause them to incur fines that they simply cannot afford.

Not long after the Net Neutrality laws were struck down, Comcast took full advantage of their newfound opportunity. In February, Netflix agreed to pay Comcast for the right to access Comcast’s networks at high speeds.(4) During the negotiations, Comcast forced Netflix to agree to their terms by throttling the site’s bandwidth, preventing it from adequately reaching its customers on Comcast’s network.(5) Netflix CEO Reed Hastings commented on the deal with Comcast, stating: “they effectively control access to millions of consumers and are willing to sacrifice the interests of their own customers to press Netflix and others to pay.” (6) This demonstrates the first major instance of the Internet Service Providers (ISPs) creating new revenue streams by charging businesses for access to “premium” levels of bandwidth. Despite Comcast’s official statements that this deal was made in response to a rise in the traffic over its network in the past few years, many opponents, including the Electronic Freedom Foundation, claim that this business practice is one step closer to a restricted pay-per-view Internet access system.

Verizon has since struck a similar deal. Viewers watching Netflix recently experienced slow loading speeds with an error message blaming the Verizon networks for the lagging bandwidth. This appears to be a reaction to Verizon who, like Comcast, has now charged Netflix for the amount of bandwidth that it uses. Netflix has been delivered a cease-and-desist order over the controversial error message.(7) However, Netflix was not the first online company to fight back against what it sees as exploitation. A coalition of tech companies, including Google, Amazon, Facebook, and many others, have recently delivered a letter to the FCC calling the proposed rule-changing “a grave threat to the Internet” (8).



Netflix error message blaming Verizon for slow buffering speeds.

Should this practice become the norm, businesses will have to pay the cable companies additional sums of money not to be put in the “slow lane.” A Google study shows that reducing a website's speed by only 400 milliseconds can drastically reduce traffic.(9) Using the “fast lane” to slow down and separate businesses would put large established Internet companies at an unfair advantage and greatly reduce the possibility of any small start-up being able to compete. For example, while companies like YouTube and Hulu might be able to stream videos quickly, alternative sites such as ProjectFreeTv would load at painfully slow speeds, if not shut down entirely. The ability to throttle the bandwidth of any Internet service gives ISPs a huge amount of leverage over the Internet industry. This conflicts with the very innovative nature of the Internet. It is unlikely that MySpace would've been replaced as the top social-networking site if then-startup Facebook was unable to afford such a tremendous expense. Net Neutrality is what makes the Internet an even playing field for the little guy. By rewriting the rules, the FCC allows companies like Comcast and Verizon to segment their users into haves and have-nots, preventing them from having equal access to the web. These companies already provide cable access for television, which operates on a very similarly tiered business structure and, with the recent ruling by the FCC, they now have the ability to apply this sort of business model to the web.

This issue extends beyond Net Neutrality into a much larger picture of telecommunication companies becoming monopolized. Comcast has been active in the news recently due to its dealings with Time Warner Cable. This February, Comcast agreed to purchase Time Warner for \$45 billion. Should this deal be approved, Comcast will become the dominant provider of information— both televised and online— to the entire United States. Brian Roberts, the CEO of Comcast, denies that this will lower competition because there was no geographic competition amongst Comcast and Time Warner before the deal.(10) The issue that opponents have is not one of reduced competition; after all, there is very little competition in the cable industry already. The issue is that this deal will allow Comcast, a company widely known for its poor customer service, to monopolize both cable and Internet services.(11)

The crux of the ethical dilemma surrounding the Net Neutrality ruling was further illuminated when Tom Wheeler was appointed the new chairman of the FCC. Mr. Wheeler was previously the head of the National Cable Television Association (NCTA) and Cellular Telecommunications & Internet Association (CTIA), making him a head lobbyist for the telecommunication industry.(12) Can the chairman regulate his past employers effectively, or does this represent a conflict of interest? As comedian John Oliver put it, “with the fact that they are practically overseeing their own oversight, it is hardly surprising that cable companies are basically monopolies now.”



Tom Wheeler, FCC Chairman.

The vast public outcry from both the public and the Internet industry has caught the attention of certain senators in Washington. U.S. Senators Edward Markey (D-MA) and Elizabeth Warren (D-MA) have co-sponsored a bill called the Open Internet Preservation Act - a bill that would restore the previous Net Neutrality rules until the FCC adopts replacement rules.<sup>(13)</sup> Although this is only a temporary fix, it demonstrates the extent public reaction has on an important issue. Since then, there have been numerous non-profit organizations lobbying in Washington to overturn the FCC's decisions. Michael Weinberg, vice president of Public Knowledge, a non-profit open standards Internet group, stated that "a two-tier Internet is anathema to a truly open Internet."<sup>(14)</sup> He later goes on to describe that this would be detrimental to the overall use of the net, because it would stymie the flow of information and prioritize the population of end users with a system similar to that of cable television. Although the FCC has seemed to have acknowledged the public outcry over the proposed plan, the new proposed rules still appear to favor the Internet "fast lanes" that have been lobbied for by the internet companies.

Many people are disheartened by the lack of representation that the people have had on this issue. Petitions at [Whitehouse.gov](http://Whitehouse.gov) pleading for the President to overturn the ruling had collected over 105,000 signatures before the White House responded. In a statement on the White House blog, officials state the President supports Tom Wheeler and believes in his ability to "maintain a free and open Internet." They assert that the FCC is an independent agency, and that the President does not have the ability to change the ruling.

The telecommunication industry currently wields incredible influence in politics.

On the verge of one of the largest mergers in the industry's history, and with the FCC chairman's potential conflict of interest, the cable industry seems set to bring forth the next big monopoly. As society becomes more networked, a restrictive-access syndicate would be incredibly detrimental to everyone and is antithetical to a free and open internet. But grassroots actions matter. It now falls on the duty of the people to persuade their respective representatives to protect Net Neutrality and the very ideals for which the web was created: the freedom of information.

### Bibliography

- (1) History (DARPA RSS), <http://www.darpa.mil/About/History/History.aspx>.
- (2) CERN Accelerating science (The birth of the web), History (DARPA RSS), <http://www.darpa.mil/About/History/History.aspx>.
- (3) The Decision in Verizon vs. FCC: A Legal Analysis (Free Press), January 14, 2014. <http://www.freepress.net/blog/2014/01/14/decision-verizon-vs-fcc-legal-analysis>
- (4) (The Wall Street Journal), Shalini Ramachandran, Feb 23, 2014. <http://online.wsj.com/news/articles/SB10001424052702304834704579401071892041790>
- (5) This graph shows how Netflix speeds changed after Comcast deal Comcast Roundup Comments), Juliana Reyers, May 9, 2014. <http://technical.ly/philly/2014/05/09/graph-shows-netflix-speeds-changed-comcast-deal-comcast-roundup/>
- (6) Netflix blasts Internet providers: 'Consumers deserve better' (CNNMoney) By: Netflix (NFLX) CEO Reed Hastings sounded off Thursday against big ISPs like Verizon (VZ), and Comcast (CMCSA). <http://money.cnn.com/2014/03/20/technology/netflix-net-neutrality/>
- (7) Verizon sends Netflix cease and desist over streaming quality warnings (The Verge), Jacob Kastrenakes, June 5, 2014. <http://www.theverge.com/2014/6/5/5783338/verizon-sends-netflix-cess-and-desist-over-congestion-warnings>
- (8) Huge coalition led by Amazon, Microsoft, and others take a stand against FCC on net neutrality (The Verge), T.C. Sottek, May 7, 2014. <http://www.theverge.com/2014/5/7/5692578/tech-coalition-challenges-fcc>
- (9) Impatient Web Users Flee Slow-Loading Sites (The New York Times), By: Lohr, Steve.

<http://www.nytimes.com/2012/03/01/technology/impatient-web-users-flee-slow-loading-sites.html>

(10) Comcast agrees to buy Time Warner Cable for \$45 billion (CNNMoney), Brian Stelter, Feb 29, 2012.

<http://money.cnn.com/2014/02/13/technology/comcast-time-warner-cable-deal>

(11) The 19 Most Hated Companies In America (Business Insider) By: Giang, Gus.  
<http://www.businessinsider.com/most-hated-companies-america-2011-6?op=1>

(12) FCC Leadership Print Email (FCC Leadership)

<http://www.fcc.gov/leadership>

(13) U.S. Congress - Senator Elizabeth Warren, Massachusetts (D) (Senator Elizabeth Warren, Massachusetts (D))

[http://www.opencongress.org/people/bills/412542\\_Elizabeth\\_Warren](http://www.opencongress.org/people/bills/412542_Elizabeth_Warren)

(14) US regulators tentatively open Internet 'fast lanes' - Channel NewsAsia (Channel NewsAsia), 16 May 2014.

<http://www.channelnewsasia.com/news/business/international/us-regulators-tentatively/1108386.html>

#### Other Consulted Works

New chapter begins in Net Neutrality fight (CNNMoney), By: James O'Toole, Feb 27, 2014.

<http://money.cnn.com/2014/02/27/technology/open-Internet>

Why won't FCC appeal court ruling striking down net-neutrality? (AMERICAblog News RSS), By Gaius Publius, Feb 27, 2014.

<http://americablog.com/2014/02/fcc-wont-appeal-court-ruling-verizon-vs-net-neutrality-Internet.html>

Court rules against Net Neutrality; big (bad) changes could be coming (AMERICAblog News RSS), Gaius Publius, Jan 22, 2014.

<http://americablog.com/2014/01/dc-circuit-court-rules-net-neutrality-big-Internet-changes-coming.html>

CERN Accelerating science (The birth of the web)

<http://home.web.cern.ch/topics/birth-web>

Internet Society (Brief History of the Internet)

<http://www.Internetsociety.org/Internet/what-Internet/history-Internet/brief-history-Internet>

White House Responds to Net Neutrality Petition (Bits White House Responds to Net Neutrality Petition Comments), By: Edward Wyatt, Feb 18, 2014.  
[http://bits.blogs.nytimes.com/2014/02/18/white-house-responds-to-net-neutrality-petition/?\\_php=true&\\_type=blogs&\\_r=0](http://bits.blogs.nytimes.com/2014/02/18/white-house-responds-to-net-neutrality-petition/?_php=true&_type=blogs&_r=0)

F.C.C. Seeks a New Path on 'Net Neutrality' Rules (The New York Times), By: Wyatt, Edward, Feb 19, 2014.  
<http://www.nytimes.com/2014/02/20/business/fcc-to-propose-new-rules-on-open-Internet.html>

Deluge of Net Neutrality comments floods FCC website after Oliver rallies audience (PCWorld), By: Grant Gross, Jun 4, 2014.  
<http://www.pcworld.com/article/2359800/deluge-of-net-neutrality-comments-hits-fcc-website-after-oliver-rallies-audience.html>

Netflix CEO Blasts Comcast (Mashable), By: Lance Ulanoff, May 29, 2014.  
<http://mashable.com/2014/05/29/reed-hastings-netflix-comcast-blast/>

Countries With The Fastest Internet Speeds (Forbes)  
<http://www.forbes.com/pictures/fhmf45fdef/the-fastest-web-on-earth/>

Commission Document Print Email (Protecting and Promoting the Open Internet NPRM)  
<http://www.fcc.gov/document/protecting-and-promoting-open-Internet-nprm>

Netflix blasts Comcast and Verizon on net neutrality: 'some big ISPs are extracting a toll' (The Verge), By: T.C. Sottek, March 20, 2014.  
<http://www.theverge.com/2014/3/20/5530898/netflix-blasts-comcast-and-verizon-on-net-neutrality-some-big-isps>

Massive survey finds Comcast and TWC are the two most hated companies in America - period (BGR), By: Brad Reed, May 20, 2014.  
<http://bgr.com/2014/05/20/comcast-twc-customer-satisfaction-survey-study/>