

Module Title: IS1103 INNOVATIONS IN ORGANISATIONS AND SOCIETY Take-Home Assignment

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What is Net Neutrality?

Net Neutrality can be defined as the proposition that Internet Service Providers (ISPs) treat all traffic on the internet equally without discrimination, and not charge, block or intentionally slow specific content. ISPs, therefore, cannot charge their users different pricing rates simply to view certain content/websites, or throttle, meaning to intentionally slow down the internet speed of a certain service. Therefore, with Net Neutrality it was illegal for ISPs to create “fast lanes” (in the analogy of an expressway) where clients or users have to pay extra in order to gain access. The rationale behind net neutrality can be linked to the ideals of a free, open and transparent internet, devoid of censorship where anyone, anywhere is able to freely access content without interference from the ISP.

Advocates of Net Neutrality argue that free and open internet is a fundamental pillar of a democratic society. ISPs should not be granted the ability to censor and restrict at will, and government influence over ISPs can lead to future “Big-Brother” style abuse where opposition and activist movements can be suppressed. Economically, Net Neutrality is crucial for maintaining a fair playing field with limited barriers to entry that promotes entrepreneurship, free-market forces, and innovation. Without Net Neutrality, startups and small firms would be at the mercy of much larger competitors who would form monopolies through their “fast lane” buying power.

Opponents to Net Neutrality, called Net Neutrality a “solution in search of a problem¹”, stating that there the issue is far overblown and that there are no serious cases of content blocking, censorship which gravely violates a free and open internet. Moreover, prioritization of internet traffic is not inherently malicious – traffic that provides essential services can be put on the “fast lane” and would be especially beneficial in rural areas where there is strained network capacity and there is a need to prioritize data. Economically, opponents subscribe to the idea that more government regulation in the otherwise free market of the internet stifles growth, investment and the efficient allocation of resources of the free market. It is also argued that abolishing Net Neutrality would lead to greater investment in the ISP sector due to the possibility of higher profits, allowing them to improve internet infrastructure and access to all.

Net Neutrality in the United States and the view of the Federal Communications Commission (FCC)

¹ Savitz, E. (2012, September 25). Net Neutrality: A Solution In Search Of A Problem. Retrieved from <https://www.forbes.com/sites/ciocentral/2012/09/25/net-neutrality-a-solution-in-search-of-a-problem/#3adfb9bf3fc5>

The topic of Net Neutrality in the United States is a highly contentious issue among US lawmakers, corporations, individuals and within the FCC itself. At its core, a heated debate exists as to how ISPs should be classified under the Federal Communications Commission Act of 1934— as under Title I “Information Services” or as Title II “Common Carrier Services”. Classifying ISPs under Title II gives the FCC significantly more regulatory authority as ISPs will be placed under the stringent framework of regulations that already govern telephone networks.

Under the Bush and Obama administrations, it has been the policy of the FCC to advocate, fight for and enforce net neutrality. In 2005, its Internet Policy Statement was “to preserve and promote the vibrant and open character of the Internet as the telecommunications marketplace enters the broadband age”.² However, enforcement was frequently frustrated after federal courts overturned and rejected the FCC cease-and-desist orders against ISPs. High profile cases include *Comcast Corp v. FCC (2010)* and *Verizon v. FCC (2014)*, both of which federal courts ruled against the FCC, citing that they lacked authority due to the classification of ISPs under Title I.

Around this period, there was growing public awareness of Net Neutrality, with public opinion strongly in favor of it. On 10 September 2014, major websites like Netflix, Reddit, Twitter, and Tumblr participated in “*Internet Slowdown Day*”, the largest ever online protest effort. Following that, the FCC garnered a record one million responses from the public, mostly in favor of net neutrality. President Obama similarly made public comments, recommending the FCC to classify ISPs under Title II in order to protect net neutrality. This campaign was significant in swaying congressional opinion and mounted pressure upon lawmakers to enact change. This led to a critical vote on February 26, 2015, where the FCC affirmed its strongest commitment to Net Neutrality, by reclassifying ISPs as “Title II Carriers”, empowering regulatory enforcement at its behest. Federal courts also eventually ruled in favor of the FCC after lawsuits were filed by telecom giants over the legality of their new regulations.

Since his appointment as the Chairman of the FCC by the Trump Administration in January 2017, Chairman Ajit Pai led and presided over the effort to repeal and dismantle its Net Neutrality regulations. Chairman Pai’s stance, even before his appointment, stated in 2014 that it was not the role of the FCC to determine net neutrality, preferring a proper resolution by elected representatives passing a proper bill where they could be held publicly accountable.³ While there was a bipartisan consensus for a “free and open internet”, policymakers fundamentally disagreed over the approach to achieve this goal. Net Neutrality was officially terminated in December 2017 following a vote by the FCC Commission in favor of the repeal of the 2015 rules.

² FCC-05151. (2015, September 23). Retrieved from <https://docs.fcc.gov/public/attachments/FCC-05-151A1.doc>

³ Wyatt, E. (2014, May 15). F.C.C. Backs Opening Net Neutrality Rules for Debate. Retrieved from <https://www.nytimes.com/2014/05/16/technology/fcc-road-map-to-net-neutrality.html>

Chairman Pai echoed the views and rationale of the Trump Administration and by extension the Republican Party's economic platform, which stressed deregulation as an economic priority, believing that it would yield innovation and enable greater efficiency through free market forces. Specifically, he mentioned that the repeal would improve incentives to improve network infrastructure and promote competition amongst broadband providers which translate to lower costs for consumers.⁴ Under the new rules, not only was ISPs reclassified under Title I, but restrictions on blocking and throttling content were lifted.

Net Neutrality in the Republic of Singapore and the Policy of the Infocomm Development Authority

Following the publication of the IDA Policy Framework for Net Neutrality in 2011, net neutrality is enshrined in law. This policy framework was formulated following the IDA's consultation with major telecom and web service firms. It appears to be highly nuanced, and do not fully adhere to the accepted principles of Net Neutrality elsewhere in the world, instead striking a middle ground that safeguards consumer rights and business interests. The IDA has adopted a three-pronged policy approach – firstly to facilitate a competitive and innovative market, secondly improve information transparency and hence consumer choices, and lastly to protect consumer interests and guarantee an acceptable quality of internet access.

The IDA recognized the importance of fostering competition in a healthy free market and is hence not heavy handed on certain regulations. While content blocking/discrimination is formally banned, bandwidth throttling - the intentional modification to an internet service's speed is not. "Fast Lanes" are allowed for those willing to pay a premium, but not at the expense of the average user, which concurs with the objectives of their third prong. Limiting speeds can only be conducted in specific scenarios such as managing an overload of internet traffic. Singapore-based ISPs may also offer customized plans where data usage towards certain services, such as Whatsapp, do not count towards a usage limit. This encourages competition and innovation by providing flexibility in product differentiation, but consumers are still safeguarded from monopolistic behavior through the Telecom Competition Code (TCC). ISPs are also subject to quality of service requirements to ensure that internet quality does not degrade in a competitive race to lower prices and business costs.

Differing views and perspective of the United States vs Singapore on Net Neutrality

The current policy of the FCC, following the 2017 repeal can be said to be fairly similar to that adopted by the IDA since 2011. For instance, anti-competition regulations still exist following the repeal of net neutrality in the U.S., although they now fall under the jurisdiction of the Federal Trade Commission instead of the FCC.

Political ideologies play a key role in the FCC's changing view of net neutrality, where a change of the party in power the last election led to a reversal in the FCC's stance for the past decade. In the U.S., private corporations fully build, own and maintain the broadband internet infrastructure, in contrast to Singapore

⁴ Kang, C. (2017, December 14). F.C.C. Repeals Net Neutrality Rules. Retrieved from <https://www.nytimes.com/2017/12/14/technology/net-neutrality-repeal-vote.html>

where the fiber optics infrastructure is owned through government-linked corporations and leased to ISPs. This explains why Republicans (who currently have majority control in the FCC), who favor free market economics urged for lesser regulations on ISPs through the belief that they should have the authority to prioritize what flows through their networks due to their committed infrastructure costs.

The most major policy difference between both countries lies in bandwidth throttling. In the U.S., it is acceptable for ISPs to throttle to an extent that certain websites cannot be used in a convenient fashion, although they must publicly disclose this. Although limiting bandwidth is not outlawed under Singapore's Net Neutrality laws, it is arguably not as necessary compared to the geographically large U.S. where certain parts lack developed infrastructure for broadband internet access. Therefore, bandwidth limiting is seen as a solution, and even to opponents of net neutrality as a necessity to provide better connectivity and access for all U.S. residents. Singapore already has the fastest broadband internet speeds at 190 Mbps⁵, in comparison to the U.S. which ranks #6 at 109 Mbps.

Personal Opinion and Thesis on Net Neutrality

The debate on whether Net Neutrality should be enforced or left to market forces will fundamentally fall on the definition of net neutrality (which lacks a legal definition in the U.S.), as well as the strategic objectives of the country enacting such a law. A key reason behind the debacle of Net Neutrality in the U.S. was due to Congress's failure to pass a proper resolution and definition. Consequently, policy will oscillate along partisan lines, regardless of public pressure or opinion. Clearly, some balance has to be struck between economic/corporate interests and consumer/civil rights and must keep up with the advancements in technology. In this thesis, I will discuss in depth my personal view and whether it should be enforced or left to the market.

One of the strongest arguments for the enforcement of net neutrality is for the protection of online content and free speech. ISPs, if given the ability to block content at will constitute a violation of the principles of a free and open internet that would exist in a functioning democracy. As of this writing, it has been more than a year since the FCC of the United States repealed and suspended its Net Neutrality regulations. Contrary to Net Neutrality advocates and doomsayers, there was little if any noticeable changes to internet access in the U.S. and there certainly wasn't a mass increase in bandwidth throttling, censorship, or discriminatory pricing⁶. Factually, even before net neutrality existed, the internet has managed to thrive. Despite the lack of severe violations against free speech conducted by corporations following the repeal, I argue that there should be laws in place to prevent content blocking as there is no good predictor or guarantee of continued impartiality by ISPs. Comcast and Verizon are examples of corporations that had previously been found guilty of

⁵ Speedtest Global Index – Monthly comparisons of internet speeds from around the world. (n.d.). Retrieved from <https://www.speedtest.net/global-index>

⁶ Finley, K. (2018, December 14). A Year Without Net Neutrality: No Big Changes (Yet). Retrieved from <https://www.wired.com/story/year-without-net-neutrality-no-big-changes-yet/>

throttling but won lawsuits against the FCC because federal courts found the latter acting beyond its authority before the imposition of net neutrality regulations.

If left to the market, it has been argued that investment will be spurred and encouraged while the regulations that come with Net Neutrality is heavy-handed and suffocates ISPs. This is current FCC Chairman Ajit Pai's main argument as he repealed net neutrality regulations in 2017. However, the reasoning for such an argument appears flawed – data shows that investment from broadband companies is mostly flat from 2013, including after the introduction of the 2015 regulations.⁷ Following the repeal of the regulations in 2017, overall investments remained sluggish and in fact decreased by 3% in 2018⁸

In addition, the U.S. has a complex problem of geographical monopolies, where many consumers in non-urban areas mostly have only 1 ISP to choose from⁹. Consequently, even if higher profits are enjoyed by the ISPs following a relaxation of regulations, there is little incentive to invest it into improved infrastructure or customer service. In this situation, a key argument for leaving net neutrality for the market to decide is rendered obsolete. More has to be done, beyond the repeal of net neutrality such as sensible macro-economic policy in order to actually promote innovation and competition. In contrast, such an argument can work for a country like Singapore, where competition is strong and consumers do not have a shortage of choice, viewing the ISPs as near perfect substitutes for each other.

The continued uncertainty and back and forth on the issue of net neutrality in the U.S. is said to hurt innovators and entrepreneurs in the internet economy¹⁰, as tech and telecom companies are unable to enact long term business models and strategy. This effect is contradictory to the FCC Chairman Pai's goal of repealing net neutrality to promote investment and innovation with a lightly regulated market. Moreover, for countries like the U.S. where there is bipartisan support in favor of net neutrality (86%)¹¹, lawmakers should be accountable to their constituents and enact proper regulation for ISPs to protect consumer interests. **Net Neutrality should be enforced in some form**, with the policy nuances about throttling, content handling and discriminatory pricing left for legislators to debate on what serves the country's interests best. Singapore's middle-ground approach works well so far, given that there is no documented violations of the current rules and monopolies do not exist. Countries like the U.S. might need a slightly stricter approach, on the basis of strong public support as well as the greater opportunity for ISPs to commit violations if left unregulated.

⁷ Kovach, S. (2017, November 29). There's a big math problem with the FCC chairman's main argument for repealing net neutrality. Retrieved from <https://www.businessinsider.sg/fccs-claim-that-broadband-investment-has-dropped-is-flawed-2017-11/?r=US&IR=T>

⁸ Bode, K. (2019, January 24). It's Now Clear None of the Supposed Benefits of Killing Net Neutrality Are Real. Retrieved from https://motherboard.vice.com/en_us/article/gyab5m/its-now-clear-none-of-the-supposed-benefits-of-killing-net-neutrality-are-real

⁹ Bode, K. (2018, December 14). The Future of American Broadband Is a Comcast Monopoly. Retrieved from https://motherboard.vice.com/en_us/article/yw7e7g/the-future-of-american-broadband-is-a-comcast-monopoly

¹⁰ Patrick, K. (2019, February 6). Congress, Not the Courts, Could End the Net Neutrality Debate. Retrieved from <http://www.govtech.com/policy/Congress-Not-the-Courts-Could-End-the-Net-Neutrality-Debate.html>

¹¹ Richter, F. (2018, May 17). Infographic: Bipartisan Support for Net Neutrality. Retrieved from <https://www.statista.com/chart/12270/public-opinion-on-net-neutrality/>