

IS1103 IS INNOVATIONS IN
ORGANISATIONS AND SOCIETY
Take-home Assignment

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Disclaimer: This report is my own work effort and I have complied with the NUS Code of
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Question 1) Net neutrality is a term to describe a state where Internet Service Providers (ISPs) treat all transmission of data to be equal. There are three main aspects to consider when looking at this issue – no blocking, no throttling and no paid prioritization [1]. No blocking means that all lawful content should be made available to paying users of the ISPs. This means that ISPs should not be blocking out access to certain websites or applications, such as those of their rival companies. No throttling entails that there should be no intentional slowing of data transmission for certain types of content. This ensures that all legal content is usable and within acceptable speed conditions. No paid prioritization suggests that there should be no third-party influence or preferential treatment to affiliated corporations to benefit their content.

The United States Federal Communications Commission (FCC) is responsible for the management and enforcement of laws involving communications across various platforms like the Internet, radio, television and others. While issues surrounding net neutrality has been long-standing since 1980s, it was only in 2005 that the FCC attempted to enforce certain rules to manage data transmissions by ISPs. This was aggravated during the Comcast (an American ISP) incident [2], where the company tried to slow and block traffic to users accessing peer-to-peer file-sharing sites like BitTorrent. The rationale for doing so was to reduce threats from competitions in the market, as such file-sharing translates to lower demand for cable TV, radio and other services that was provided by Comcast [3]. These actions hence propelled for proper regulations and laws to be set in place to manage the ISPs.

Moving forward, the FCC passed a rule in 2015 to apply common carrier to Internet services, which means that the Internet would be seen less as information and more as telecommunications [4]. Despite several challenges to the ruling, especially by the telecom groups, proponents of this law supported it due to greater and free access to information on the Internet, and at fast speeds.

However, this rule was repealed in 2018 shortly after the inauguration of President Donald Trump, where he subsequently appointed Ajit Pai, an opposer of net neutrality regulations, as the chairman of the FCC. The main argument for the repeal was to encourage innovation among ISPs, increase investments and to leave the issue to market forces [5]. This was however faced with much backlash from public interest groups as many felt that the repeal might lead to potential drawbacks that affect both users and small companies.

Some of the problems raised were greater premiums, disadvantages to small growing companies, and in turn a growing economic divide. With greater control over their services, ISPs might potentially increase the costs or incur additional fees for better Internet services, leading to an increase in cost to the consumers. This means that the poor would also have less access to such services as they are left in the slow lane. Moreover, as ISPs could potentially be incentivized by third party corporations or by their own interests, they could provide greater access of information at a faster speed to the bigger corporations who are able to give monetary incentives in return. This means that small corporations

might trail behind due to the lack of capital and lead to a greater inequality and divide between the rich and the poor, especially in a gig economy today where small companies work on project basis.

In lieu of this, states such as California and Washington attempted to put in their own law to ensure net neutrality for its own citizens, overriding the law set by the FCC [6]. This was however faced with lawsuits by the FCC and has become a contentious topic till date.

Question 2) Net neutrality in Singapore was enforced in June 2011 in the White Paper. The Info-communications Media Development Authority (IMDA) is the equivalent of the FCC in the US, as they are responsible for the regulations and monitoring of data transmission in Singapore. While Singapore adopts a similar net neutrality idea as the US before the repeal, she does not ban the act of throttling by ISPs, as long as the general user can still access information at reasonable speeds. This means that consumers have the option to pay more for a higher Internet speed, though that is not required for a regular Internet usage. ISPs today also provide packages for users who require large amounts of data in social messaging, social media, video and other Internet usages, giving them unlimited data usages in that particular add-ons. In addition, ISPs are allowed to slow down the traffic of certain users who uses very large amounts of bandwidths should they be found to affect other users' Internet experience [7]. This is however not common as Singapore has the bandwidth capacity to handle large volumes of data, as oppose to other countries that are much larger with limited data coverage in specific regions.

Singapore did not have any changes in her stance towards net neutrality when US passed their law to both favor and repeal net neutrality. This is because IMDA believes that there have been no breaches to their regulations by the ISPs and that the citizens of Singapore should have access to free information on the Internet as long as they are deemed as lawful by IMDA.

In a survey conducted by IMDA [8], it is noted that there have been no major problems that were caused by our law on net neutrality. Also, IMDA acknowledged that there is a need for improvement in traffic given the rising usage of the Internet due to greater affluence among citizens. It also identifies some dissatisfaction among the broadband services provided by the ISP, with reasons ranging from poor services to slow speeds.

As such, the IMDA currently adopts a three-pronged approach to net neutrality. The first prong is to increase the competitiveness between the various ISPs to reduce their likelihood to engage in blocking or discriminatory acts. The second is to ensure that consumers have the necessary knowledge of the different broadband packages so that they can make more informed choices when choosing between different ISPs. The last is to ensure that the services provided by ISPs are of acceptable quality in terms of both speed and content. With these measures, Singapore's rules are that there should be access to all content that is lawful without any censorship, with no preference for any third-party corporations or self-interests, but encourages various types of plans that caters to individuals' needs.

Question 3) With the above arguments and looking at the case for both United States and Singapore, I am personally for net neutrality and I feel that it should be enforced. I will examine the case by looking at some of the positive and negative aspects of having and not having net neutrality respectively.

Firstly, net neutrality allows for both consumers and companies to have equal access to information. As net neutrality ensures that ISPs do not engage in blocking, this would mean that companies do not have the right to limit the type of content that is available to the users. Theoretically, as long as the website is legal by the countries' law, users will be able to access these websites freely. This would not just be fair for the consumers, but for the companies as well, as they do not need to pay extra just to ensure that ISPs allow users to access their content at fair speeds. In contrast, the repeal of net neutrality effectively means that ISPs can have full control over what content you have access to. This essentially means that even if one was to pay high premiums to have fast access to the Internet, ISPs could slow down or limit the access one has to certain websites just on the premise that the companies associated with these websites did not pay more for their content to be shown easily, or because they did not want users to access these services even if they are legal. ISPs could even choose to completely block out their competitors' website so as to limit the information their users have to rival companies.

There have been many instances where companies made use of this to their advantage, and a notable case in point would be the blocking of FaceTime services by AT&T in 2012. [9] During this incident, AT&T charged an additional fee for users under their mobile plan to use FaceTime on cellular data. The rationale for doing so was that FaceTime was a substitute to many of the services that AT&T was already providing, and having their users turn towards FaceTime would possibly harm their business. In response to the general accusation of the violation of net neutrality, AT&T replied that FaceTime was an application that was directly downloaded by Apple, and hence does not fall within the FCC's net neutrality rules [10], which was considered a far-fetched argument. In addition, since users still had to pay for the mobile data involved in using FaceTime, there should be no reason for AT&T to include an additional plan just for using the application. As such, from the above example, we can see that companies tend to find loopholes within the system so as to maximize their own benefits. Thus, a properly enforced set of rules for net neutrality would be better for both consumers and companies in the industry.

In addition, net neutrality will ensure equal pricing for Internet speeds and not to leave the poor behind. ISPs that are not restricted by net neutrality rules are able to have individual pricing to charge for different Internet speeds. This allows the higher paying users to be on the traffic fast lane, leaving the rest on the slow lanes. In addition, this will also allow for prices to be kept low in general as there is no discrimination regardless of the type of Internet you are using. For example, when ISPs realised that consumers are using more data on video streaming, they might hike the prices for such services so that they can maximize their own profits. This will increase the overall cost for consumers, which would not have been the case if net neutrality was in place. Furthermore, small companies without high capital

might not be able to progress fast in the market as big companies have the means and money to collaborate with the ISPs to make their services faster and more accessible. This will ultimately lead to a growing disparity between the rich and the poor companies [11].

On the other hand, a common argument against the idea of net neutrality is often that such regulations will hinder the growth of the ISPs and discourages investments. This is because there is less incentives for such companies to innovate as the progress and actions of the ISPs are limited by the rules set in place. As such, there is not much room for the free market to function by itself and encourage growth and competition between these ISPs to provide better services. As these sectors receives lesser investments, it potentially means lesser job creations and lower productivity within the company. However, I believe that the opposite is actually true – that net neutrality can encourage greater investments and innovation. With regards to my previous point on equal pricing, a fair treatment of all companies will mean that there will be a diminishing divide between the big and small companies and small companies will be able to grow, and in turn able to innovate as well. Furthermore, by denying access and censoring content to certain websites, it is acting as barrier to information that consumers could and should have gotten for themselves. Companies will hence need to go through another ‘gatekeeper’, which are the ISPs, before they are able to innovate and sell their products and services. As such, it is better to have net neutrality to be enforced to ensure that innovation can take place and encourage growth in our economy.

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