

IS1103 IS INNOVATIONS IN ORGANISATIONS AND SOCIETY
Take-home Assignment

This report is my work effort alone, and I have complied with the NUS Code of Student Conduct.

Q1. Net neutrality refers to the equal treatment of all Internet content sources by the Internet service and the network providers, and the right of a consumer to non-discriminated access to Internet content and services.

Starting in the early 2000s, FCC advocated net neutrality, approving an Internet policy statement based on then Chairman Michael Powell's four Internet freedoms, with hopes of preserving and promoting "the vibrant and open character of the Internet as the telecommunications marketplace enters the broadband age." (Federal Communications Commission, 2005)

Years on, FCC continued to advocate net neutrality, though met with several setbacks such as the overturning of FCC's order to Comcast to stop interfering with peer-to-peer traffic in 2010 (Gross, 2010), and Verizon's victory of a major lawsuit over the FCC in 2014. For the latter lawsuit, the court ruled that the 2010 Open Internet Order, with rules centered around transparency, no blocking, and no unreasonable discrimination, only applied to common carriers and not internet service providers (ISP).

However, the FCC continued to maintain its net neutrality stance up till 2015, while it was still led by then Chairman Tom Wheeler, a Democrat. Following the Verizon lawsuit, the FCC approved rules that banned ISPs from blocking and slowing content in the Web, banned the practice of paid prioritization, and gave themselves the power to investigate broadband practices should it be believed that problems would arise. Wheeler's stance on these new rules is that the internet had to fast, fair and open. These rules would have strengthened oversight over ISPs during the time when many Americans were moving to the Internet for their communication needs, and thus protecting the average consumer from discriminatory practices.

This pro-net neutrality stance all began to change when Chairman Tom Wheeler resigned on January 2016, giving Republican representatives, who had openly opposed the current rules, a 2-to-1 majority in the FCC. (Finley, 2016)

It must be first understood that the Republican party stemmed on the belief of less federal regulation over the economy. The 2015 FCC rules meant that the government could, theoretically, control how much ISPs charge consumers for Internet services, which outrightly opposed their beliefs.

The newly appointed Republican Chairman, Ajit Pai voted to roll back the rules in December 2017. His stance is that there was no problem with the current Internet that needed to be solved in the first place. The then regulations restricted businesses too much, discouraging them from investing in network upgrades that could improve Internet services, and preventing job creation. He argued that these rules affected smaller ISPs the most from providing new services, as they were afraid that the new services would lead to potential enforcement actions, which they could not afford to handle. (Republican Views, 2018)

Q2. The Info-communications Media Development Authority of Singapore (IMDA) put out its stance on net neutrality in a White Paper back in 2011, and IMDA stated that there are currently no plans to relook at it. (Hio, 2017)

The then Infocomm Development Authority of Singapore (IDA) set down what they called their “three-pronged policy” towards net neutrality. The three prongs - facilitation of a competitive Internet access market via their Telecom Competition Code, improvement of information transparency, and the provision of consumer interests protection and quality Internet access to consumers, aim to disincentivize discriminatory practices that would restrict consumer choice and allow consumers to better understand their choices. (IDA, 2011)

The above policy however does not follow strictly to the notion of net neutrality defined by the FCC. For one, unlike in the US, slowing down Internet speeds is possible in Singapore. However, this is only applied on Singaporean users based on set conditions, such as taking up so much bandwidth that could cause other users to experience slower Internet speeds.

Secondly, for Internet services such as online pornography, access to such Internet services are slowed down to the point of making it impossible to access, or they are blocked outrightly in Singapore, as they go against the Singapore law. Blocks and restrictions for such services are however not allowed in the notion of net neutrality proposed by the FCC.

Lastly, unlike in the US, ISPs and network operators in Singapore are still allowed to offer consumers with customized packages of Internet services, such as Spotify Premium package provided by Singtel which grants Singtel customers no data charges while listening music with Spotify. (Yi, 2016) ISPs are also allowed to provide premium customers with what the FCC coined as “fast lanes”, as long as such services would not demerit the average user. In other words, such services are allowed as long as IMDA’s Quality of Service and information transparency policies are adhered.

Presently, there are no signs that Singapore would let go of its current stance on net neutrality. For one, since the White Paper in 2011, there has not been a single reported case of discrimination from any Internet service. Furthermore, there is enough bandwidth across the entire island of Singapore, and as such no need for slowing down of Internet speeds to the average user. This however cannot be said in the US, where there are still several states with low mobile data coverage.

In the first place, the major reason for the battle for net neutrality in the US is due to what is known as the “last mile” monopoly. In the US, only select ISPs have access to the last mile, and they were banned, during then President Obama’s FCC, from discriminating traffic to other services. With the repeal of the net neutrality rules, this ban is lifted, disadvantaging ISPs that do not have access to this last mile. (Perlman, 2017) However, that is not the case in Singapore where multiple local ISPs share the same infrastructure. There is sufficient market competition and competition laws in place in

Singapore, so that the current situation in US would not occur. As such, there is no need for concern for Singapore to follow US's example of repealing their current net neutrality rules.

Q3. I would like first base my definition of net neutrality on these three central rules of the 2015 Open Internet Order – no blocking, no throttling, and no paid prioritization. From this definition, I personally think that net neutrality should be enforced to a certain extent, as long as it does not impede ISPs from innovating and providing better services for consumers.

I believe users should be able to freely access any content on the web. There should not be any blockage or throttling. If net neutrality is not in place, ISPs would possibly proceed to hinder access to other internet services. On one extreme case, different ISPs would provide access and block different services, which would mean if one wanted to use particular services or access certain sites, he would have to subscribe to a single particular ISP for his needs. This would in the end limit consumer choice and freedom.

On the idea of paid prioritization, I believe that this is the least needed rule to be enforced in net neutrality. In the 2015 Open Internet Order, part of paid prioritization refers to the giving of preferential treatment to the content or services of their affiliates. However, if providing preferential treatment to said services can provide more choices to the consumers, why not do it? For example, going back to the Spotify Premium package that was mentioned previous in my Question 2 response, Singtel users are given the additional option to subscribe to this package for unlimited music through Spotify. It might sound biased to Singtel, but other telcom users are not negatively affected as they would still be able to use Spotify, but just not at the promotion price Singtel offered. Not to mention users who have no need for Spotify to listen music have no need for this package. Ultimately, this is simply opening the consumers to more choices, with no cons for the average user. In other words, I believe that paid prioritization would not have to be enforced as much as the other rules as long as it does not restrict the average user.

From the above paragraph, you might start to think I am a little biased to how net neutrality is being practiced in Singapore, and I probably am. The current policies on net neutrality in place in Singapore have struck a good balance to protect both consumer and business interests. Local ISPs are given sufficient power, limited by laws, to provide services that the Obama FCC's rules can not allow, while not disadvantaging the consumers but instead provide them with more choices.

Of course, you might say that different countries have different circumstances, and the repealing of net neutrality might be better for the US. However, I still believe that without certain amount of regulation, we would be giving ISPs and businesses too much power over the consumers and also smaller businesses.

Chairman Ajit Pai argued that net neutrality is scaring smaller ISPs from innovating and providing better services. However, with net neutrality repealed, who's to say that larger ISPs would not use this opportunity to bring down these smaller businesses? Let's not forget that these larger ISPs, such as Comcast, hold access to the "last mile" in the US. With no open access to the last mile, smaller ISPs have no choice but to build up their infrastructure from the ground up, and without any protection given by net neutrality, it would be hard for these smaller ISPs to even build them. On a worst case, this would lead to internet services simply be concentrated among few companies – an oligopoly. This would thus lead to fewer ISPs to choose from, and less consumer choice and freedom.

Even though I advocate Singapore's net neutrality rules, we cannot expect US to adopt the same rules, which have worked pretty well so far, either. US do not have a robust bandwidth coverage like Singapore do, and it would be unfair to expect them to implement such coverage given the size of US compared to Singapore. And as mentioned before, the type of Internet infrastructure Singapore has is different compared to the US.

Ultimately, I believe that certain regulations should be placed to ensure that the Internet remain a fair, fast and open platform, and net neutrality rules provide a good starting point.

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