

# IMPACT OF NET NEUTRALITY REGULATIONS AND ITS FUTURE IMPLICATIONS: GLOBAL PERSPECTIVE

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## **Abstract**

*Framing telecommunication policies affects local countries and their implication impacts the global world. In the growing world of communication introduction of net neutrality regulation has been a matter of debate for quite a long time. Technological innovation, economic development, and information access are three important factors that have an influence on the development of policy for net neutrality. Together with these three factors, stakeholders like ISPs (Internet Service Providers), content providers, institutional community, policy makers, and especially the users are also tied to the net neutrality regulation. Moreover, issues like value in terms of pricing, service availability, and certain barriers to free speech should also be considered for setting of agenda and making of decision encompassing the concept of net neutrality. The research paper presents a simple understanding of net neutrality and further highlights the various discriminations done by market power ISPs in the of field of net neutrality with contributing factors like service quality, pricing, and technology. The research paper intends to identify and highlight arguments for and against the net neutrality regulations keeping in mind the factors and stakeholders role and objectives. It also focuses on the possible future implications of this regulation from social, cultural, and political viewpoint keeping in mind the interrelated issues of value, technology and policy.*

**Keywords:** Net Neutrality, Quality of Service, Pricing, Technology, ISPs.

## **Introduction**

A decade back, there used to be a common consensus about the use of Internet among its stakeholders be it politicians, business groups, technical world, consumer groups, etc. But when the idea of net neutrality came into being, some ISPs (Internet Service Providers) began using it to their advantage. According to the vicious

plan of their think tank, they have communicated to the world that the contents provided by the content providers like Google, etc. will be provided to the consumers via special Internet “Fast Lanes” and hence it needs to be chargeable.

Till now there is no precise definition of net neutrality. However, net neutrality implies that all data available on the internet be treated as same and equal. There should be no discrimination regarding the access and use of data and it should not be charged differently from the user based on its contents, the application through which it is provided, necessary infrastructure in terms of hardware and middle ware via which it is provided, and the mode of communication.

Due to the market power of ISPs (Internet Service Providers) they are trying to introduce a variety of discriminatory pricing schemes for the access and use of data over the internet. The end result of this discriminatory policy is that slowly the end to end principle of providing data to the consumer is departing from the concept of net neutrality and as such it is now known as controlled and directed Net Neutrality.

It is high time that the government should formulate a strong policy which can safeguard the interest of internet consumers. This policy should have a global perspective and presence and should be applicable irrespective of any country or region. Keeping this in mind, we present the research in this area. The rest of the paper is organized as follows: Section II showcase the idea of net neutrality, Section III highlight arguments for and against the net neutrality regulations, Section IV focuses on the possible future implications of this regulation from social, cultural, and political viewpoint keeping in mind the interrelated issues of value, technology and policy Section V showcases the proposed framework for the policy makers for net neutrality policy decision framing with factors like service quality, pricing, and technology, and Section VI provides the conclusion and future work.

### **Net Neutrality - A Definition**

In its most basic form Net Neutrality can be explained as a public information network which could prove to be most useful if and only if all its contents, websites, and platforms are treated equally i.e., operation of a service at a certain layer in not influenced by any data other than the data interpreted at that layer and in accordance with the protocol specification for that layer.

There are many services and data in internet which is chargeable and the consumers have been paying for it to the service providers. For example email services are both free and chargeable. But discrimination in access and use of data and services by the ISPs to the consumers by any means should be against the principles of net neutrality.

## Net Neutrality - Discrimination

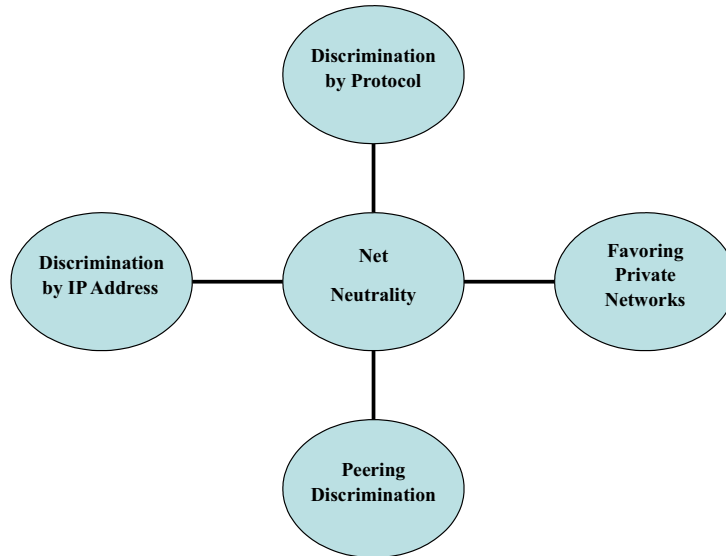


Figure 1.1 Showing Net Neutrality Discrimination

Discrimination could be by protocol which is termed as favoring and it implies blocking information based on factors of communication protocol. Comcast in 2008 prevented some subscribers from using the peer-to-peer sharing services for downloading large files.

Discrimination by IP address is another practice that ISPs adopted to end the concept of net neutrality. The internet security company NetScreen Technologies in 2003 released network firewalls which were capable of deep packet inspection thereby making real time discrimination between different kinds of data possible. It can be used for internet censorship. There are plenty of other examples available worldwide where there is such discrimination being adopted as a malpractice by many ISPs.

Private networks are being favored over others thereby encouraging the use of specific services by utilizing private networks to discriminate what data is counted against bandwidth caps. For example Comcast and Microsoft entered a deal where the users were able to stream television through Xfinity on their Xbox 360 without affecting their bandwidth limits. At the same time, the use of other television applications like Netflix, HBO Go, etc. were counted towards the limit. Comcast denied the allegation that it is against the principles of net neutrality and said that Xfinity for Xbox services runs on its private internet protocol network.

In another reported incident during 2014, Netflix had an agreement with Comcast regarding improvement of its service qualities which is to be provided to Netflix Clients. The result was that there was an increase of 66% in connection as compared to the slow connection speed during 2014. Now this is a case of peering and there has been disagreement in the community regarding that. Further Netflix also made similar deals with Verizon

in 2014 for increasing the Verizon DSL customer connection speed.

### **Pros of Net Neutrality Regulations**

We argue that mandating net neutrality would be likely to reduce economic welfare. Instead, the government should focus on creating competition in the broadband market by liberalizing more spectrum and reducing entry barriers created by certain local regulations. In cases where a broadband provider can exercise market power the government should use its antitrust enforcement authority to police anticompetitive behavior.

According to the community report following are some of the pros of net neutrality regulations:-

- Net neutrality regulations imposes ban on ISPs charging for online services like Xbox Live, Playstation Plus, Skype, Netflix for providing fast lanes to the elite customers. These charges make the services more expensive for the normal internet users. They also prevent small companies to compete with big companies.
- A net neutrality regulation ensures that people of different socio-economical status have similar access to information. There is a fear among the community that without net neutrality regulation, ISPs may charge premium fee from the normal internet users to have special access to public libraries thereby benefiting the rich people.
- The said regulation helps to promote freedom of choice and prevents the ISPs not to obstruct particular contents or website over the others.
- The regulation also stops the ISPs and reduces their capacity to decide to limit access or promote some type of contents. This is what anti-blocking and anti-discrimination rules is which is included in the net neutrality regulation and limits the role of ISPs to only act as a medium to facilitate data to the users that have paid for delivery. So this prevents the ISPs not to shape content consumption patterns.
- The regulation promotes a level playing field for competing companies.
- Net neutrality policies give the people the benefit of fast internet access
- Net neutrality is protecting the freedom of communication and the liberty of discourse. If any matter found on the site is not viewable by any person than that person is free to not look at that site.
- Net neutrality concept is opposed by the ISPs as this hinders technological development.

### **Cons of Net Neutrality Regulations**

According to the community report following are some of the cons of net neutrality regulations:-

- Imposing net neutrality policies is considered against free market rules and will not encourage the new and

innovative business idea.

- These policies may also regulate the pay-to pay schemes. Different customers may charge differently as per their requirements and usage.
- The extra money received by the ISPs can be used to increase the bandwidth of the internet users. These policies may reduce the user data consumption allotment resulting fast access to other users.
- A net neutrality regulation is used as a tool by the government and ISPs to stop online piracy. Net neutrality rules also makes more difficult to monitor and control controversial adult content.
- Service providers will claim that they cannot afford the extreme high costs of the newest technology if the companies are not allowed to charge more for service that an individual is free to opt for or free to decide not to use.
- Companies also claim that with the advancement of new technology new devices will be utilized to lower the data travel speed or vice versa which is also a type of theft.
- One of the challenging aspects of net neutrality is that the policies to neutralize the data speed will affect more to the government than individuals.
- Net neutrality principles can have a harmful effect on consumers, as they are forced to pay more for fewer features or services. From operator point of view it may be beneficial but it will be not appropriate investment from consumer point of view.
- Customers also have a strong point of argument to implication of net neutrality as they want to restrict the viewing of unhealthy and pornographic material which are exposed to the children very easily. Therefore on an average a majority of average people oppose net neutrality.
- Another point which is gaining pace in opposing net neutrality is the capacity for fixing of price for the availability of information control.
- We can simplify the idea of net neutrality as it will be very well said that my data is as important as yours. Therefore we can say at all individuals have the same access right to the data speed as specific groups or government agencies in time of emergencies.

### **Conclusion and Future Implications**

There has always been a tussle between the technology and regulatory laws. The technology moves at a much faster pace as compared to the regulatory laws that binds it in a boundary for proper and comprehensive use by the common mass. The key stakeholders like law makers, politicians, technology professionals, society, business groups needs to work together in a synchronized manner to frame law for net neutrality regulation.

Issue with law maker is that they rely heavily on the previous court decisions, politicians rely heavily on the rules written for existing technology leaving no room for the new technology specific rule formation. The role of new technology introduction is already being played by the technology professionals; society has no or less

says on the rule formation process, business group work for their own benefit and frame rules accordingly.

There is always a risk associated with a premature legislation and it could overly constrain or wrongly direct net development process. Hence the best approach as of now would be to formulate and incorporate standards rather than rules should be incorporated for proper formation of net neutrality regulation with a synchronized approach and active role by all the stakeholders. Because rules are appropriate where conditions are well defined and the optimal outcome is known. But when the conditions are uncertain and the optimal outcome is unknown, standards are more suitable. This holds same for net neutrality regulations so forming standards should be more applicable.

This research paper is an attempt to provide a comprehensive introduction as well as a survey of the academic state of the issue of net neutrality. The ISPs want Net Neutrality to be maintained at all costs. According to the ISPs and company regulating net the rules can easily be tampered and there won't be any kind of transparency. A large number of groups are of the view that the control of Internet should not be in the hands of Private ISPs and the Government should play an active role in its management and control as far as its usage is concerned. The costly resources used in providing internet services by the ISPs should be exchanged with municipal wireless.

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