

EXPLORING THE DIFFERENT REALMS OF NET NEUTRALITY

Debanik Bid and Sanjana Chatterjee¹

Abstract

The core principles of net neutrality advocate the transmission of data without any discrimination and additional consideration. It aids in a level playing ground for all the new entrants into the market. This paper provides a framework to evaluate and elucidate the effect it has on innovation and competition and eventually shifts its focus to illustrate legislations of various countries throwing light on renowned judicial precedents. The authors have also put forward certain recommendations as deemed fit to them. The recommendations strike a balance acting as a middle ground to which both diverging groups might comply with. The authors are in strong support of the principle of net neutrality and the notion that net non-neutrality will have a negative impact on the consumers and the economy as burden of extra cost will trickle down to be borne by them.

I. INTRODUCTION

“Allowing broadband carriers to control what people see and do online would fundamentally undermine the principles that have made the Internet such a success”.²

-Vint Cerf, founding father of the Internet

Internet or the World Wide Web has become almost indispensable in the 21st century because of its easy and non-discriminatory access. Internet is the abbreviation of the term inter network which describes the connection between computer networks all around the world on the basis of the same set communication protocols.³ It has become more of utility than luxury nowadays. Percentage of population with internet in India rose from 0.53% in 2000 to 19.19% in 2014.⁴

Owing to the expansion and speedy growth in the telecommunication sector, the government is trying to introduce the concepts of ‘Digital India’ and ‘Make in India’ whereby they are trying to

¹ New Law College, Bharati Vidyapeeth Deemed University.

² U.S. senate committee on Commerce, Science and Transportation Hearing on “Net Neutrality”, available at www.commerce.senate.gov/pdf/cerf-020706, last viewed on 20th August, 2015

³ Jan Krämera, Lukas Wiewiorraa & Christof Weinhardt, *Net Neutrality: A Progress Report*, Telecommunications Policy 37(9).794-813 (2013).

⁴ Internet Live Stats, *India Internet Users*, <http://www.internetlivestats.com/internet-users/india/> (last viewed on 16 August 2015).

establish broadband highways to reach out to the people not having access to internet with propaganda of uniting the nation. Back in 2001, India ranked 12th in the world in terms of internet users which has elevated to the 3rd position in 2015.⁵ This tremendous growth is gradually creating pressure for pouring more investment in the network infrastructure.⁶ The ever increasing demand and rise in the appetite for bandwidth is resulting in network congestion being followed by a requirement of investment and development in this capital incentive industry.⁷ These technological advancements are leading to prioritization of certain data packets and adoption of models by telecom service providers (TSPs) such as traffic shaping, over-provisioning, charging content application providers, zero rating plans, to name a few. This is giving rise to concerns pertaining to net neutrality.

II. UNDERSTANDING NET NEUTRALITY

The fundamental nature of internet is to provide unfettered access to the users. Owing to the expansion and speedy growth in the telecommunication sector, the ISPs are trying to intervene with this openness due to financial constraints by levying extra charges. This gave rise to the term net neutrality. “Net Neutrality” is not a familiar term to majority of the population as they lack understanding of functioning of internet. The concept of net neutrality is that the internet service providers (ISPs) should not discriminate against the information being sent and all websites, data packets should be allowed to co-exist without any hindrance. Few more terms have been connoted to this issue namely, Internet Equality, Net Equality or Internet Neutrality.

Professor Tim Wu, who coined the expression “Net Neutrality”, defined it saying: “*Network neutrality is best defined as a network design principle. The idea is that a maximally useful public information network aspires to treat all content, sites and platforms equally. This allows the network to carry every form of information and support every kind of application.*”⁸ In

⁵ *Id.*

⁶ Directorate of Telecommunications, *Net Neutrality: DoT Committee Report*, May 2015, available at http://www.dot.gov.in/sites/default/files/u10/Net_Neutrality_Committee_report%20%281%29.pdf.

⁷ CISCO, *Net Neutrality*, http://www.cisco.com/web/about/gov/issues/net_neutrality.html (last viewed on 15 August 2015).

⁸ ROBERT ZELNICK, EVA ZELNICK, *THE ILLUSION OF NET NEUTRALITY: POLITICAL ALARMS, REGULATORY CREEP AND THE REAL THREAT TO INTERNET FREEDOM* (2013)

simpler language, net neutrality means no blockage, transparency, no unreasonable restrictions and no discrimination of data usage.⁹

III. TRAFFIC MANAGEMENT POLICIES DEROGATORY TO NET NEUTRALITY

Gradually the term Net Neutrality has morphed and adopted a number of other meanings from content specific blocking to more service-based tiering. The following will demarcate the many different traffic management policies derogatory to the principle of net neutrality in respect of showing the scope of the argument rendering the term net neutrality.

- i. **Blocking:-** Enabling and protecting freedom of speech and expression is one of the fundamental nature of net-neutrality. This means that the ISPs should not block or discriminate the content or applications because they should not be concerned regarding the contents we watch or post online. This will also hamper open internet.
- ii. **Rerouting:-** When request is made to the server for getting a desired result, many networks are traversed¹⁰ to get the result to the server asked by the user. It is nearly impossible for the internet to work without cooperative agreements between the networks.¹¹ They get into such agreements so that they can use each other's network while traffic congestion. It can be elaborated by the motoring analogy which is mostly used by the game theorists.¹² Here the internet is assumed to be a highway and the data packets to be cars. When there is a gridlock, the telecom companies would pick up a car stuck there and put it in the first queue if the driver is ready to pay a premium.¹³ This is in conflict with the principle of net neutrality because the ones who have resources are given preference to transfer their data packets through a less congested network exploiting the rights of the non payers.
- iii. **Throttling:-** It basically causes bottlenecks. The ISPs intentionally slow down the internet service so as to reduce the bandwidth used by the users. This limits the speed of uploading photos, downloading movies and browsing videos causing problems to the

⁹ HONG GUO ET AL, EFFECTS OF COMPETITION AMONG INTERNET SERVICE PROVIDERS AND CONTENT PROVIDERS ON THE NET NEUTRALITY DEBATE (2014).

¹⁰ JOHN WILEY & SONS, NETWORK SECURITY BIBLE, (2ND ED. 2009).

¹¹ Rachelle B. Chong, *The 31 Flavors of the net Neutrality Debate: Beware the Trojan Horse*, ACLP Scholarship Series (December 2007)

¹² Niranjan Rajadhyaksha, *The ambiguous economics of Net neutrality*, Live Mint, April 18 2015, available at <http://www.livemint.com/Industry/hz8BtbDLFnLkV69HU2EWUP/The-ambiguous-economics-of-Net-neutrality.html>

¹³ *Ibid.*

users. The main intention behind this is to earn extra revenue and therefore compel the users to buy expensive data packets. This is an unfair method of regulating bandwidth because even after paying such expensive price, users are not getting the required bandwidth.

- iv. Data Discrimination:-** The ISPs by discriminatory filtering send the information to the user. It exploits the concept of open internet and freedom of the internet. This includes internet censorship and throttling of accessing or publishing information in the internet.¹⁴ Discrimination of illegal stuffs is justified but discrimination favouring particular networks comprises unjust trade practices and attracts anti-competitive practices. **Deep packet inspection** is a kind of data discrimination. It is a technology used to inspect the data packets travelling over an IP network by inspection of the source and destination of IP address, packet payload and port number of the packets. ISPs use this widely for traffic management at individual levels.¹⁵ Though this technology is used for managing internet since many years, proponents of net neutrality hold the view that this technology might reduce the openness of World Wide Web and also abuse the disciplines of anti-trust laws.¹⁶ Its use by ISPs to control bandwidth poses a threat to net neutrality.
- v. Quality of Services:-** It prioritizes the quality of service to different applications and different users guaranteeing an assured level of performance to the internet according to the request by the program.¹⁷ These are especially required for streaming multimedia applications like, VoIP and IP-TV.¹⁸ This too goes against the concept of net neutrality as priority service is provided only to the affiliated users.
- vi. Access Tiering:-** Tiered services allow users to select from a small set of tiers based on the number of voice minutes, text messages, and other features, at gradually increasing price to get the products best suited for their personal needs. The proponents are of the view that this tiered internet goes against the principle of net neutrality because it gives a

¹⁴ Eric Schmidt and Jared Cohen, The Future of Internet Freedom, The New York Times , March 11, 2014 available at http://www.nytimes.com/2014/03/12/opinion/the-future-of-internet-freedom.html?_r=0

¹⁵ GSR 12 Discussion Paper, *Net Neutrality: A Regulatory Perspective*, International Telecommunication Union, (2012) available at <http://www.ictregulationtoolkit.org/Documents/Document/Document/4029>.

¹⁶ Hal Abelson, Ken Ledeen, Chris Lewis (2009). "*Just Deliver the Packets, in: "Essays on Deep Packet Inspection", Ottawa*", Office of the Privacy Commissioner of Canada.

¹⁷ BLOOMSBURY USA, NET NEUTRALITY TOWARDS A CO-REGULATORY SOLUTION, CHRISTOPHER T. MARSHDEN (2010)

¹⁸ Babette E.L. Boliek, *Wireless Net Neutrality Regulation and the Problem with Pricing: An Empirical, Cautionary Tale*, 16 Michigan Telecommunications and Technology Law Review, (2009).

better service and quality to the end users who pay for the better service.¹⁹ ISPs could misuse this power and prioritize the resourced one more. Deliberately throttled traffic for creating a tiered internet is rendered useless whereas on contrary one fast lane for all is considered more efficient.

IV. ECONOMICS OF NET NEUTRALITY

The primary requirement before analyzing the effects of net neutrality on innovation and competition is to understand its correlation with economics. Innovation, competition and investment are the basic forces driving the economics of net neutrality.

In an article by Free Press, three types of discriminatory business models which are adopted by ISP was postulated. These models can or, by and large, are resorted to by ISPs which operate in violation to the principle of net neutrality.

First is “**pay for play**” model where the ISPs charge the content providers for preferential treatment of their data packets. This is however a model unlikely to be adopted since this would turn the tables on the ISPs themselves. It is the content and application for which the consumers pay money and not for the connection. It would lead to the Cable TV model. The content providers instead would ask the ISPs to pay for the privilege of carrying their contents to their customers.²⁰

Second is “**pay for priority**” model which is at present largely debated issue of net neutrality. Under this model the ISPs are compensated by the application and content providers for prioritizing their traffic above all other traffic flowing in the network. This means that ISPs will form paid prioritization relationships. This model works only when the congestion is widespread. The limitation to this model is that when the number of prioritized contents increases there increases a negative impact on all other left out contents which follow user defection and devaluation which might not be enough to offset the losses.²¹

Third model is “**Vertical Prioritization**”. Under this scheme when there is any application or service that competes with the private application or service of the ISP, it prioritizes its own

¹⁹ Nick Feamster, Lixin Gao, Jennifer Rexford, *How To Lease Internet In Your Spare Time*, 37 ACM SIGCOMM Computer Communication Review, (2007).

²⁰ Derek Turner, *Net Neutrality: Investment and Economics*, Free Press, (2010), available at http://www.savetheinternet.com/sites/default/files/resources/Net_Neutrality_Investment_and_Economics.pdf.

²¹ *Ibid.*

vertical service over all or degrades the other service or blocks that competing service. This scheme brings with it no newer incentive to income and investment but only provides insulation to their own services from network facilitated competition.²²

IV.1 TWO SIDED MARKET

Entire debate on net neutrality can be seen through the prism of the principle of two sided market. The principle of two sided market, also described as a platform market, is that an intermediary operates between two different sets of customers whose function is to create a connection between the two groups.²³ For example, Amazon connects the buyer and seller online. In a similar way the ISPs act as intermediaries connecting the application and content providers to the retail customers who have subscription to the ISP connection.²⁴ The intermediaries in a two sided market have an interest in attracting customers from both the sides wherein each side has a stake in the growth of other.²⁵

An intermediary will never have an interest in discouraging customer participation as this would directly affect its profit. ISPs charge internet access fees from both the end users and the content providers. In a two sided market they are allowed to differentiate between the pricing made upon the two sides. The company in middle will drop prices in that side of the market where demand is more responsive to price changes. The question then arises is which side is more price sensitive.²⁶ It is considered that the end users have an elastic demand thus being more price sensitive and CAPs (content and application providers) are less sensitive because of their higher willingness to pay.²⁷ The ISP sets a higher fee for the side which is less price sensitive and lesser fees for the side which is more price sensitive.²⁸ By this the ISP may lose revenue on the side of

²² *Ibid.*

²³ Niranjan Rajadhyaksha, *Ambiguous Economics of Net Neutrality*, Live Mint, April 18, 2015, available at <http://www.livemint.com/Industry/hz8BtbDLFnLkV69HU2EWUP/The-ambiguous-economics-of-Net-neutrality.html>.

²⁴ Gerald R. Faulhaber, *The Economics of Network Neutrality Are “prophylactic” remedies to non-problems needed?*, available at <http://object.cato.org/sites/cato.org/files/serials/files/regulation/2012/6/v34n4-4.pdf>,

²⁵ Economides, N. & Tag, J., *Network neutrality on the internet: A two-sided market analysis*, Information Economics and Policy (2012), 24, 91-104.

²⁶ Nurski, L., *Net Neutrality, Foreclosure and the Fast Lane: An empirical study of the UK Leuven*, (2012).

²⁷ *Ibid.*

²⁸ Musacchio, J., Schwartz, G. & Walrand, J., *A Two-Sided Market Analysis of Provider Investment Incentives with an application to the Net-Neutrality Issue*, Review of Network Economics.

end users but it would be compensated by charging a higher fee from CAPs.²⁹ This is known as the waterbed effect.³⁰ This provides the ISPs with an incentive to increase or develop prices for priority lanes instead of increasing broadband tariffs.

V. EFFECT ON INNOVATION AND COMPETITION

The opponents of net neutrality is majorly of the view that ISP sector is capital intensive which is undergoing a rapid technological advancement and when any market is developing at a pace a lot of investment is required. There is a boomerang view to this issue of net neutrality. The view holds that information disseminated by the ISPs and the content providers are not remunerated which gradually leads to systematic underinvestment in the internet.³¹ However, this argument by the ISPs and the opponents defies reality.as both the consumers and content providers are required to pay a certain fees to the ISPs and all this money go well down to them

V.1. EFFECT ON COMPETITION

The authors would like to elucidate the market phenomenon regarding net neutrality. In the field of industrial economics, anti-trust analysis suggests two sources of suspect behavior: Horizontal relationships and Vertical relationships. Horizontal relationships are those when there is a relationship created between two companies functioning in the same market or in the same level of the market and vertical relationships are those when there are mergers or agreements between firms at different levels of the market.

Horizontal relationship causes the competition to die resulting in monopolistic power. For instance, the Comcast takeover of Time Warner will lead to a single firm controlling more than 40% of the internet market.³² Anti-trust legislations seem to restrict such takeover but the companies argued that they were not competing and the markets in which they function do not overlap as they function in different jurisdiction. There are many such ISPs in India who have restricted coverage areas but that does not justify the argument that they are not competitors.

²⁹*Ibid*

³⁰*Ibid*

³¹Media Resource Kit- Free to Invest: The Economic Benefits of Preserving Net Neutrality.

³²Consumers Union, *The Comcast / Time Warner Cable Merger: A Bad Deal For Consumers*, (April, 2015), available at <http://consumersunion.org/research/the-comcast-time-warner-cable-merger-a-bad-deal-for-consumers/>, last viewed on 20th August, 2015

This argument advocated by the companies, is fallacious. The question is why are they not competing?

Though horizontal relationship is not a major concern to hamper competition in the Indian telecom market, it is the **Vertical relationship** between the ISPs and the content and application providers which is majorly crumbling the principle of net neutrality. Google, YouTube, Yahoo, etc do not compete in the same market as the ISPs. The former are rather dependent on the latter to act as a carriage to transport and deliver the data to their users; their relationship with the ISPs is hence vertical and not horizontal. ISPs are therefore gaining a dominant position in the market over the content providers. What happened in the Comcast and Netflix case is a perfect illustration of exercise of monopoly over Netflix.³³ Data packets of Netflix were moved along a completely separate lane and therefore never reached the congested global network.³⁴ This happens straightway in a monopolistic market only as the dominant players are left over to do anything they desire.

V.1.1. Principles of Net Neutrality and the Competition Act, 2002

It has been held by the Supreme Court of USA that telecommunication disputes are not immune from inspection of anti-trust laws.³⁵ The essence of internet is to provide an equal field to all and thereby giving rise to healthy competition.³⁶ Some of the Net neutrality principles are implicit in the Competition Act of India. Section 3(4) of the Competition Act, 2002 of India prohibits any such agreements (horizontal or vertical) as discussed above which endorse anti-competitive environment. For instance, Airtel and Reliance Communications have come up with plans like 'Zero Rating Plan',³⁷ and 'Internet.org',³⁸ with Flipkart (now has taken a step back)³⁹ and

³³ Cecilia Kang, *Netflix strikes deal to pay Comcast to ensure online videos are streamed smoothly*, February 23, 2014, available at http://www.washingtonpost.com/business/technology/netflix-strikes-deal-to-pay-comcast-to-ensure-online-videos-are-streamed-smoothly/2014/02/23/0e498d18-9cc2-11e3-975d-107dfef7b668_story.html

³⁴ *Ibid*

³⁵ Verizon Communications, Inc. v. Law Offices of Curtis V. Trinko, L.L.P., 540 U.S. 398, 415 (2004).

³⁶ See also 'From a Public Internet to the Internet Mall' available at http://www.itforchange.net/sites/default/files/ITfC/Internet_mall-EPW.pdf (Google and Facebook could get the better of Alta Vista and Orkut respectively, because they had the same and equal access to users).

³⁷ MTNL, *Airtel's zero rating plan and Reliance Communication's Internet.org goes against net neutrality*, May 18, 2015 available at <http://tech.firstpost.com/news-analysis/airtels-zero-rating-plan-and-reliance-communications-internet-org-goes-against-net-neutrality-says-mtnl-267471.html>.

³⁸ *Ibid*

³⁹ Tehelka Daily, *Net Neutrality Furore: Flipkart Dumps Airtel's Zero Rating Plan*, April 14, 2015, <http://www.tehelka.com/2015/04/net-neutrality-furoreflipkart-dumps-airtels-zero-rating-plan/>

Facebook as partners respectively, where the users will not be charged any data for their access. This was considered to be in violation with the principles of net neutrality because this privilege was given only to those companies who had resources to partner with them and there was a direct denial to the services which were to compete with the partners of Airtel and Reliance. Tata Docomo also began providing a boutique of email and social networking sites for just Rs 50, but the rest had to be subscribed for separately which was much more expensive.⁴⁰ Further, Section 4 of the Competition Act provides that an enterprise which is in dominant position cannot abuse its dominance to cause appreciable adverse effect on competition.⁴¹ Section 4(1)(b)(i) of the Act says that if a dominant player limits or restricts the production of goods and provision of services or the market for those products and services, he will be said to have abused his dominant position.⁴² Incorporating specific websites into the free internet package will amount to an act of restricting the services of the content providers who are excluded from the package. This denial of specific services and denial of market to said services are prohibited under this section.⁴³ In 2014, allegations were leveled against Google for prioritizing its own advertisements and allied services in search results and thus competition being throttled. The CCI (Competition Commission of India) too after examination found the alleged allegations to be similar to anti-competitive practices. It subsequently fined the search engine Rs. 1 crore for non-cooperation with the Commission's investigative arm.⁴⁴ On appeal, the Delhi High Court stayed the order imposing fine but did not stay the substantive matter before the Commission.⁴⁵ This reaffirms the CCI's jurisdiction over anti-competitive practices over the internet even without any explicit agreement.

V.2. EFFECT ON INNOVATION

A market where barriers to entry are reduced, buyers are facilitated by infinite choices and never ending information, sellers empowered to reach to the consumers directly cutting through the

⁴⁰ Parminder Jeet Singh, *From a Public Internet to the Internet Mall*, Economic & Political Weekly, (2010).

⁴¹ The Competition Act, 2002 (No 12 of 2003), available at <http://cci.gov.in/images/media/Advocacy/CompetitionAct2012.pdf>

⁴² The Gazette of India, New Delhi, (January 14, 2003).

⁴³ Bedavyasa Mohanty, *Net Neutrality and Antitrust: Options for India*, ORF Issue (August 2015).

⁴⁴ PTI, *Competition Commission imposes Rs 1 crore fine on Google*, Business Today, March 27, 2014, available at: <http://businesstoday.intoday.in/story/competition-commission-imposes-fine-on-google/1/204677.html> (last viewed on July 17, 2015).

⁴⁵ PTI, *Delhi High Court stays CCI order to impose Rs 1 crore fine on Google*, The Economic Times, October 15, 2014, available at http://articles.economictimes.indiatimes.com/2014-10-15/news/55059378_1_cci-order-google-news-google-maps (last viewed on 20 August 2015).

middlemen is a platform which best facilitates innovation, ingenuity and competition. Discrimination was never an option and it is reprehensible that now we are even involved in a debate over net neutrality. Neutrality is the very lifeblood of internet and is essential for fostering innovation and providing niche to healthy competition.⁴⁶ Given the increasing number of penetration into the world of internet, it is becoming a breeding ground for the start ups and net non-neutrality will be troublesome.⁴⁷ Currently internet provides an open platform to the innovators with high degree of predictability about any major segment of business, where they can present a new idea or application or service to the end users.⁴⁸ They are not required to go to the ISP every single time seeking permission for such with a fear of getting filtered out. The proponents are of the belief that discrimination will become an impediment for start-ups as their business hinge on the access to bandwidth. But such an idea is destroyed if the audience is required to pay extra for the higher bandwidth media and the marketing techniques would be rendered ineffective. The new entrepreneurs will face a hard blow if the ISPs start charging extra for certain types of usage or start treating the innovators competitors on a priority basis as result of a deal between the two. This results in deterring investor's confidence. Competing with established rivals will get difficult and thus, this will reduce innovation.⁴⁹

Innovation in the telecommunication sector can be categorized in two forms- innovation at the core and innovation at the edges.⁵⁰

V.2.1. Innovation at the core relates to the layer where the network providers function. It is the platform layer of the network where the network providers and the service providers get horizontally integrated, jointly defined as ISPs. Competition to a certain level is necessary between the ISPs to facilitate innovation at the core. Broadband network is a market of competing infrastructures. It is an intense market where they not only compete on prices but on

⁴⁶ DC Debate, *Can Net neutrality aid digital India?*, Deccan Chronicle, April 19, 2015, available at <http://www.deccanchronicle.com/150419/commentary-op-ed/article/dc-debate-can-net-neutrality-aid-digital-india> (last viewed on 29 August 2015).

⁴⁷ Start-ups cry foul over Airtel Zero, say it will destroy Net Neutrality <http://indianexpress.com/article/technology/social/net-neutrality-airtel-zero-is-not-a-win-win-platform-start-ups-cry-foul-over-such-plans/>,

⁴⁸ Brynjolfsson, E. The 4 Ways IT is Driving Innovation. CDB Research Brief, Vol. XIII, No.2, (2010)

⁴⁹ HONG GUO ET AL, EFFECTS OF COMPETITION AMONG INTERNET SERVICE PROVIDERS AND CONTENT PROVIDERS ON THE NET NEUTRALITY DEBATE (2014).

⁵⁰ Kocsis, V. & Bijl, P. de, Network neutrality and the nature of competition between network operators, *International Economics and Economic Policy*, (2007)

innovative ideas. They generally differentiate themselves from each other by portraying to the end users the services provided by them are superior thereby increasing their authority in market. Innovation here directly relates to competition, more the competition among ISPs more innovative will be the network provider with their services such as VoIP and online television. For an instance if an ISP blocks certain VoIP service which is in competition with the private service of the ISP, the other service providers have an incentive in not adopting such blocking as they can differentiate from the former by not doing so. Subsequently, the former ISP would be made to reconsider its blocking strategy.

V.2.2. Innovation at the edges relate to the layer where the content and application providers function. Innovation at the edges can take place due to the application blind nature of the internet⁵¹ which is the indispensable principle of net neutrality. This build up of the network facilitated innovators much more room to put forward their ideas either with no or less investment and then let the end users decide whether such application or service is beneficial to them or not.⁵² A large number of innovators at edges can be witnessed who were initially small and mostly individual and grew to be big market players (E.g. Google, Amazon, Flipkart, etc.)⁵³. In a market where the companies have significant market powers it becomes difficult for end users to switch between different ISPs. Such anti-competitive environment created encumbers competition between CAPs. These entry barriers in the market of content and application providers are detrimental to innovation. Further prioritization in the market is a serious threat to innovation.

VI. COMPARISON WITH LEGAL FRAMEWORK IN INTERNATIONAL JURISDICTIONS

The authors want to put forth a landscape that offers a anatomization of how the issue of net neutrality is dealt with in different countries. This is not only an issue arising in India but its embryonic growth can be seen in most of the developing as well as developed nations. Being such a complex issue different countries have different approaches to it depending upon the specific shades it has developed due to the social, political and economic conditions.

⁵¹ Van Schewick, *Network Neutrality and Quality of Service What a Non-Discrimination Rule Should Look Like*, available at <http://cyberlaw.stanford.edu/downloads/20120611-NetworkNeutrality.pdf>.

⁵² Brynjolfsson, E. & McAfee, A., *Race against the machine: How the digital revolution is accelerating innovation, driving productivity, and irreversibly transforming employment and the economy*, MIT Center for Digital Businesses (January 2012).

⁵³ Odlyzko, A., *Network Neutrality, Search Neutrality, and the Never-ending Conflict between Efficiency and Fairness in Markets*. Review of Network Economics, (2009).

Very few are the number of the countries which have incorporated the concept of net neutrality within their legislative structure and gave it a legal binding, e.g. Brazil, Chile, France, Netherland, Singapore, Canada, USA.⁵⁴ Some countries like European Commission, Japan, United Kingdom came up with light touch regulatory measures whereas some countries like Australia, Republic of Korea and New Zealand sustained this issue on the ground that the existing mechanism was enough to regulate the issue.⁵⁵ In this section the authors make an attempt to deal with the countries which have incorporated the law regarding net neutrality in their municipal laws.

VI.1 A Case Study of CHILE

Chile became the first country to implement laws on net neutrality which placed the country at forefront in the world internet polity.⁵⁶ Everything began when different ISPs started adopting policies which were derogatory to the concept of network neutrality such as data discrimination, blocking communication protocols, data ports, etc. There came a community named Neutralidad Si, a group of regular citizens which made a representation to the representatives of Congress which demonstrated to them the importance of Net Neutrality and brought to the notice importance of legislations regarding it in order to ensure the rights of the users.⁵⁷ This was further followed by a three year extensive analysis and discussion in the parliament which led to adoption of laws in the favor of the consumers on June 13, 2010.⁵⁸ This was brought by way of amendment to its General Law of Telecommunications which was approved by The Board of the Chamber of Deputies with an unanimous decision of one hundred votes to one abstention.⁵⁹

The Amendment to the General Law of Telecommunications under Article 24H read as follows:

“[ISPs] May not arbitrarily block, interfere with, discriminate against, hinder or restrict the right of any Internet user to use, send, receive or offer any content, application or legal services through the Internet, and any other legal activity or use conducted through the network. In this

⁵⁴ DoT Committee Report. 2015

⁵⁵ *Ibid*

⁵⁶ IT Pro Portal, *Chile first to enact net neutrality law*, available at <http://www.itproportal.com/2010/07/14/chile-first-enact-net-neutrality-law/>.

⁵⁷ *Chile: First Country to Legislate Net Neutrality*, September 4, 2010, available at <https://globalvoicesonline.org/2010/09/04/chile-first-country-to-legislate-net-neutrality/>.

⁵⁸ *Roetter, Chile's Approach to Net Neutrality*, available at <https://www.gplus.com/internet/insight/chiles-approach-to-net-neutrality-49592>

⁵⁹ *Chile: A Leader in Net Neutrality*, available at <https://openmedia.ca/plan/international-comparisons/chile>.

sense, each user must be provided with an Internet access or connectivity to the Internet service provider, as appropriate, without arbitrarily differentiating content, applications or services based on the source or ownership thereof, taking into account the different configurations of the Internet connection in accordance to its current contract with its users.”⁶⁰

The ISPs are however exempted from taking any steps which facilitates preserve user privacy and safety when surfing, security from viruses or any such threats by way of blocking access to certain specified contents or services and forbids them to restrict any liberty thereon unless it is detrimental to the network or the quality of services.⁶¹ Further provisions were made regarding parental controls and transparency which required the ISPs to provide users with the network management policies adopted, the average and maximum speed a user can achieve, distinguish between quality of international and national connections.⁶² Chile’s Minister of Transport and Telecommunication said in support of the laws that “users will be best served because they will know the type of service they are buying”⁶³.

Companies like Facebook, Wikipedia, Twitter struck deals with telecom providers to offer their apps and services for free. This was the beginning of zero rated access to users in Chile. The promotional plans gave the customers access to social media apps like Twitter, Facebook and VoIP services like Whatsapp for a much lower price than the traditional data plans. On April 14, 2014, zero rated social media apps were banned by Subtel⁶⁴ followed by issuance of a circular “Circular N. 40”⁶⁵ which was provided as explanation to the new law thereby mandating termination of such anticompetitive practice by June 1. As was stated by Subtel, the zero rating

⁶⁰ Jorge Molina Osorio, *The Principle of Net Neutrality Consumer and Internet Users*, Department of Telecommunications of Chile available at <http://www.leychile.cl/Navegar?idLey=20453>.

⁶¹ "Chile first to enact net neutrality law, July 14, 2010, available at <http://www.itproportal.com/2010/07/14/chile-first-enact-net-neutrality-law/>.

⁶² *Ibid*

⁶³ Rahul Gaitonde, *Chile Legally Mandate Network Neutrality and Increased Transparency for ISPs*, BroadbandandBreakfast.com., July 15, 2010, available at <http://broadbandbreakfast.com/2010/07/chile7legally7mandates7network7neutrality7and7increased7transparency7for7isps/>.

⁶⁴ Yana Welinder & Carolynne Schloeder, *Chilean Regulator Welcome Wikipedia Zero*, September 22, 2014 Available at <http://blog.wikimedia.org/2014/09/22/chilean7regulator7welcomes7wikipedia7zero/>.

⁶⁵ According to the Circular 40, Chilean regulators decided to ban zero-rating because the practice violated Articles 6 and 7 of Chile’s net neutrality laws.⁸⁵ In the Circular, Chile’s “Subsecretaria de Telecomunicaciones” decided that zero-rating is a promotional tool and mandated that all zero-rated-related marketing deals had to stop, Subsecreteria"de"Telecomunicaciones Circular 40(Chile). http://www.subtel.gob.cl/transparencia/Perfiles/Transparencia20285/Normativas/Oficios/14oc_0040.pdf

plans were in violation of Article 24H(a) of the telecommunication law. Subtel further explained that “by allowing consumers to access some websites but not others (or by exempting some but not all sites from a monthly data limit), the carrier is blocking or hindering access to all websites not included in the promotion”⁶⁶. Chile’s regulators supported such decision fearing that the practices would create an anti-competitive environment thus demotivating new services and startups. However, Chile allowed a zero rating arrangement in the form of Wikipedia Zero.⁶⁷ Wikipedia asserted that how the new ruling would apply on their service. It was held that the arrangements of Wikipedia zero and the arrangements prohibited by Subtel can be distinguished. Wikimedia Chile declared that, “the program fits within Chile’s legal framework and was in consistent with the Country’s commitment to improving access to education for its citizens”⁶⁸.

Currently Chile has banned such anticompetitive practices and the arrangements and services such as zero rating must end by June 1, 2014⁶⁹. However, the policy adopted by Chile in favour of Wikipedia zero depicts that Subtel may allow some exemption of arrangements based on particular criteria.

VI.2. A Case Study of NETHERLAND

Netherland became the first among the European nations and second in the world after Chile, to adopt laws regarding net neutrality.⁷⁰ The legislation was in pursuant to a timeline of events in the political, economic and social scenario of the country. Firstly, it was to be adopted as there was a need to ensure the consumers’ rights of freedom of expression, freedom to hold opinions and to receive and import information and ideas⁷¹. Secondly, due to economic instability and the discriminatory practices adopted by the ISPs formed a more relevant argument for net neutrality

⁶⁶ Daniel Lyons, "In Chile, Net Neutrality Widens the Digital Divide," Tech Policy Daily (June 6, 2014), <http://www.techpolicydaily.com/communications/chile7net7neutrality7widens7digital7divide/>

⁶⁷ Rahul Gaitonde, "Chile Legally Mandates Network Neutrality and Increased Transparency for ISPs," Broadband and Breakfast.com (July 15, 2010), <http://broadbandbreakfast.com/2010/07/chile7legally7mandates7network7neutrality7and7increased7transparency7for7isps/>

⁶⁸ Rahul Gaitonde, "Chile Legally Mandates Network Neutrality and Increased Transparency for ISPs," Broadband and Breakfast.com (July 15, 2010), <http://broadbandbreakfast.com/2010/07/chile7legally7mandates7network7neutrality7and7increased7transparency7for7isps/>

⁶⁹ Wally Swain, "Chile Bans Mobile Operators From Offering Zero Rated Apps," Yankee Group, <http://maps.yankeegroup.com/ygapp/content/efdb16fc55e04a4bbd643da4aaadc75a/68/DAILYINSIGHT/0>

⁷⁰ Net neutrality enshrined in Dutch law, available at <http://www.theguardian.com/technology/2011/jun/23/netherlands-enshrines-net-neutrality-law>

⁷¹ Convention for the Protection of Human Rights and Fundamental Freedoms as amended by Protocols No. 11 and No. 14, available at <http://conventions.coe.int/Treaty/en/Treaties/Html/005.htm>

regulations. The latter reason was pursuant to KPN, Dutch ISP, coming forward announcing that it would start blocking services such as VoIP and instant messaging followed by Vodafone stating that it has already blocked such services.⁷² These included Skype, video and voice recording by Microsoft and Whatsapp. KPN stated that the company has suffered a huge loss due to the upcoming of new messaging services and apps which was reason to the changing customer behavior.⁷³ It used DPI (deep packet investigation) to determine whether the mobile users are using these VoIP services or not.⁷⁴ It further stated that the average revenue per user of the company reduced to a large extent and hence to keep it up it will make users pay extra for using third party messaging or VoIP applications.⁷⁵ Vodafone Netherlands further blocked various VoIP like Viber using DPI by dumping a high percentage of data packets.⁷⁶⁷⁷

On June 22, 2011 the house voted for the amendment of the Telecommunications Act under Article 7.4a with net neutrality regulations which was further passed by the senate in 2012⁷⁸. Article 7.4a of the Netherlands Telecommunication Law defines ISP as “Providers of public electronic communications networks over which internet services are delivered and providers of Internet access services”⁷⁹. It provides that the ISPs are obliged not to hinder or slow down applications and services on the internet unless and to the extent that the measure in question with which applications or services are being hindered is necessary⁸⁰. Those exceptions are: (i) in order to minimize the effects of congestion, (ii) to preserve the integrity and security of network

⁷² <http://www.nu.nl/internet/2498071/kpn-gaat-mobiele-diensten-blokkeren.html> "KPN gaat mobiele diensten blokkeren" [KPN is going to block mobile services]; <http://www.nu.nl/internet/2498984/vodafone-blokkeert-diensten.htm>, "Ook Vodafone blokkeert diensten" [Vodafone is also blocking services].*NU.nl* (in Dutch)

⁷³ Paul Ramussen, KPN's plans for tiered data pricing provoke outcry, available at <http://www.fiercewireless.com/europe/story/kpns-plans-tiered-data-pricing-provoke-outcry/2011-04-29>,

⁷⁴ Ibid

⁷⁵ [Ijtsch van Beijnum](http://arstechnica.com/tech-policy/2012/05/netherlands-becomes-worlds-second-net-neutrality-country/), Netherlands becomes world's second “net neutrality country”, available at <http://arstechnica.com/tech-policy/2012/05/netherlands-becomes-worlds-second-net-neutrality-country/>

⁷⁶ Viber says blocked by Vodafone DPI, available at <http://www.telecompaper.com/news/viber-says-blocked-by-vodafone-dpi--804903>

⁷⁷ For an extensive list of mobile cases see: <http://bit.ly/13WN66c> ('VON Europe - Non-exhaustive Identification of Restrictions on Internet Access by Mobile Operators')

⁷⁸ "Historische dag voor internetvrijheid - de eindscore" [Historic day for Internet freedom - the final score] (in Dutch). Bits of Freedom, available at <https://www.bof.nl/2011/06/22/historische-dag-voor-internetvrijheid-de-eindscore-2/>

⁷⁹ See http://wetten.overheid.nl/BWBR0009950/Hoofdstuk7/Artikel74a/geldigheidsdatum_10-02-2014, wetten.nl - Wet- en regelgeving - Telecommunicatiewet - BWBR0009950" [wetten.nl - Laws and policies - Telecommunications Act - BWBR0009950] (in Dutch). Article 7.4a

⁸⁰ "Door"Ot"Van"Daalen,"Translations'of'Key'Dutch'Internet'Freedom'Provisions,"Bits"of"Freedom"(June"27,"2011), available at <https://www.bof.nl/2011/06/27/translations7of7key7dutch7internet7freedom7provisions/>

and service of the provider, (iii) to restrict the transmission to block unsolicited commercial communications such as spam with prior consent of the end user, (iv) to implement a legislative provision or court order.⁸¹ Further it states that ISPs shall not make any charges in accordance with the type of services and applications offered.⁸² A religious exception was added to these provisions against throttling when Dutch Labor Party voted for the amendment. This allows the end users to request ISPs to filter their traffic by blocking on religious grounds.⁸³

The Ministry of Economic Affairs issued guidelines on net neutrality for the Authority for Consumers and Markets (ACM)⁸⁴. On January 27, 2015 Vodafone launched a “HBO Go” app and provided it to customers with Vodafone subscribers free with a three months subscription.⁸⁵ On January 2015, KPN offered free Wi-Fi hotspots in different places like airport. These offered the users “Free Basic Internet” through iTV online app which actually blocked or excluded services like BitTorrent, FTP, SSH, Telnet, and VoIP.⁸⁶ However the implementation of Dutch Telecommunication Law prohibits the ISPs for differentiating tariffs for different services. The amendment rendered KPN and Vodafone unable to zero rate the internet usage.⁸⁷ Vodafone Netherland was imposed a fine of €200,000 while KPN was fined €250,000 by ACM for violating the laws.⁸⁸ This firm stance on the practices of KPN and Vodafone by ACM clarified its adherence to the laws and the scope of net neutrality law in Netherland.

VI.3. A Case Study of USA

The year of 2005 witnessed a series of judgements by the Supreme Court on the issues of net neutrality.

⁸¹ Ibid

⁸² Ibid

⁸³ The "Netherlands" Approves "Net" Neutrality Laws, "Gamepolitics.com" (May 9, 2012), available at <http://www.gamepolitics.com/2012/05/09/netherlands7approves7net7neutrality7law/>; Lee "Kaelin," *Netherlands' Becomes First in Europe to Pass Net Neutrality Law*, "Infowars.com" (May 12, 2012), <http://www.infowars.com/the7netherlands7becomes7first7in7europe7to7pass7net7neutrality7law/>

⁸⁴ Feyo "Sickinghe," *Net Neutrality Guidelines in the Netherlands Come Into Force*, "Bird" and "Bird" (May 27, 2015), available at <http://www.twobirds.com/en/news/articles/2015/netherlands/net-neutrality-guidelines-in-the-netherlands-come-into-force>

⁸⁵ Netherlands: two telcos fined for net neutrality violations, available at <https://edri.org/netherlands-two-telcos-fined-for-net-neutrality-violations/>

⁸⁶ Ibid

⁸⁷ Fines imposed on "Dutch" telecom companies "KPN" and "Vodafone" for "Violation" of "Net" Neutrality Regulations, "Auth." for "Consumers" and "Mkts." (Jan. 27, 2015), available at <https://www.acm.nl/en/publications/publication/13765/Fine7imposed7on7Dutch7telecom7companies7KPN7and7Vodafone7for7violation7of7net7neutrality7regulations/>.

⁸⁸ Ibid

The issue first came into picture in the *Madison River case*⁸⁹. It was a conflict between Madison River a digital subscriber lane (DSL) which was a major player as an ISP and Vonage, an early VoIP provider. Vonage's application allowed users to place calls over the internet. Vonage later on complained that Madison River blocked the application in order to promote its own VoIP application as a result of which there was a customer shift from Vonage to Madison River.⁹⁰ An investigation was carried out by FCC and later both parties were made to come into an agreement under which Madison River ceased the blocking and a fine was imposed by FCC for such blocking which was apparently derogatory to the principles of network neutrality.⁹¹

In *National Cable & Telecommunications Association v. Brand X Internet Services*⁹²: The Telecommunications Act of 1996 passed by Congress broke the AT&T's monopoly.⁹³ Cable and telephone operators started putting pressure on FCC to have themselves exempted from the competitive requirements of the telecommunications act and to declare that internet was not a telecommunications service. Supreme Court held that cable modem access is an interstate "information service" subject only to Title I⁹⁴.⁹⁵ The FCC then extended similar treatment to broadband access over telephone based digital subscriber or "DSL lines". After the Supreme Court's decision FCC decided to set forth a set of principles declining to adopt any rules enforcing the Internet Policy Statement. The four principles were (i) consumers are entitled to access the lawful internet connection of their choice; (ii) consumers are entitled to run applications and services of their choices; (iii) consumers are entitled to connect their choice of

⁸⁹ *Madison River Commc'ns LLC* 20 FCC Rcd. 4295 (2005)

⁹⁰ *Madison River Commc'ns LLC* 20 FCC Rcd. 4295 (2005); Ben Charny, "Vonage Says Broadband Provider Blocks Its Calls" (February 14, 2005), available at http://news.cnet.com/Vonage-says-broadband-providerblocks-its-calls/2100-7352_3-5576234.html

⁹¹ *Ibid*

⁹² NATIONAL CABLE & TELECOMMUNICATIONS ASSN. V. BRAND X INTERNET SERVICES (04-277) 545 U.S. 967 (2005) 345 F.3d 1120, reversed and remanded, available at <https://www.law.cornell.edu/supct/html/04-277.ZS.html>

⁹³ Hansell, S. (June 28, 2005). Cable Wins Internet-Access Ruling available at <http://www.nytimes.com/2005/06/28/technology/cable-wins-internetaccess-ruling.html>

⁹⁴ Title I of the 1934 Communications Act gives the FCC such authority if assertion of jurisdiction is "reasonably ancillary to the effective performance of [its] various responsibilities." The FCC in its order cites consumer protection,

network reliability, or national security obligations as examples of cases where such authority would apply

⁹⁵ NATIONAL CABLE & TELECOMMUNICATIONS ASSN. V. BRAND X INTERNET SERVICES (04-277) 545 U.S. 967 (2005) 345 F.3d 1120, reversed and remanded, available at <https://www.law.cornell.edu/supct/html/04-277.ZS.html>

legal devices that do not harm the network; (iv) consumers are entitled to competition among network providers, application and service providers, and content providers.⁹⁶

In December 2006, FCC investigated to find that AT&T and Bell South were in a merger agreement to facilitate internet access⁹⁷. FCC further imposing its net neutrality rules forcing AT&T to commit itself, “not to provide or to sell to internet content, application, or service providers any service that privileges degrades or prioritizes any packet transmitted over AT&T/BellSouth’s wireline broadband Internet access service based on its source, ownership or destination”⁹⁸.

The Comcast Case⁹⁹

In 2007, several customers of Comcast started facing problems in using Bit torrent however Comcast denied any such responsibility to the consumers’ problems¹⁰⁰. Associated Press and Electronic Frontier Foundation, two internet user watch dog groups, conducted tests and the results were clearly stating that Comcast discriminated against the customers using P2P protocols and P2P traffic interference.¹⁰¹ FCC assuming jurisdiction investigated into the matter and found Comcast’s action violative to the principle of net neutrality as they affected consumers using a disfavoured application even in a state when there was no network congestion. It was also found that Comcast allowed users high amount of bandwidth even when there network congestion provided disfavoured applications were not used.¹⁰² It was held by the commission that Comcast’s conduct posed a threat to open character and efficiency of internet.¹⁰³ However no penalty was imposed on Comcast but was asked to disclose the network management policies

⁹⁶ Federal Communications Commission (August 5, 2005). "New Principles Preserve and Promote the Open and Interconnected Nature of Public Internet", available at <https://www.fcc.gov/blog/modernizing-fcc-s-it>

⁹⁸ "Re : Notice of Ex Parte Communication in the Matter of Review of AT&T Inc . and BellSouth Corp Application For Consent to Transfer of Control, WC Docket No. 06-74" (PDF). Federal Communications Commissions, <https://www.fcc.gov/blog/modernizing-fcc-s-it>

⁹⁹ Comcast Corp. v. FCC,¹¹¹ 600 F.3d 642, available at [http://www.cadc.uscourts.gov/internet/opinions.nsf/EA10373FA9C20DEA85257807005BD63F/\\$file/08-1291-1238302.pdf](http://www.cadc.uscourts.gov/internet/opinions.nsf/EA10373FA9C20DEA85257807005BD63F/$file/08-1291-1238302.pdf)

¹⁰⁰ Theodore D. Frank & Maureen Jeffreys , Recent Developments in the U.S. on Network Neutrality, Arnold & Porter LLP

¹⁰¹ <http://www.washingtonpost.com/wp-dyn/content/article/2007/10/19/AR2007101900842.html>

¹⁰² Comcast Corp. v. FCC, 600 F.3d 642, available at [http://www.cadc.uscourts.gov/internet/opinions.nsf/EA10373FA9C20DEA85257807005BD63F/\\$file/08-1291-1238302.pdf](http://www.cadc.uscourts.gov/internet/opinions.nsf/EA10373FA9C20DEA85257807005BD63F/$file/08-1291-1238302.pdf)

¹⁰³ *Ibid*

within 30 days of the decision of the Commission and was further asked to remove the restrictions imposed. In April 6, 2010, the FCC's order was vacated on the ground that FCC didn't have authority to adjudicate on the matter¹⁰⁴. Even though Comcast stated that it will continue complying with the principles formulated by FCC in August, 2005 and in order to pursue that it has developed a new method of controlling network congestion.¹⁰⁵

FCC in December 21, 2010 passed an Open Internet Order which aimed at facilitating reasonable and transparent network management, right to level platform to consumers and innovators and establishment of Open Internet Advisory Committee for vigilance.¹⁰⁶

Verizon followed by MetroPCS filed a law suit against FCC questioning the broad authority of the commission. The court gave judgement in favour of Verizon vacating the FCC Open Internet Order of December 2010¹⁰⁷. On May 15, 2014 the FCC decided to adopt a policy in which, firstly, fast and slow broadband lanes were permitted and secondly, broadband was to be reclassified as a telecommunication service thereby both compromising and preserving net neutrality which was majorly criticized. On November 10, 2014, President Obama directed FCC to draft rules on net neutrality that would be reclassifying broadband service under Title II of the Communications Act.¹⁰⁸

FCC finally adopted new open internet rules which were then released on March 12, 2015.¹⁰⁹ Following provisions are included in the order: (i) reclassified Broadband Service as a Telecommunication Service under Title II; (ii) created general conduct standard so that ISPs cannot harm consumers or edge providers; (iii) enhances transparency rules for both end users and edge providers; (iv) to practice reasonable network management; (v) open internet rules are not applied to specialized services as defined by FCC that do not provide access to the Internet; (vi) bans blocking, throttling and paid prioritization; (vii) applies major provisions of Title II

¹⁰⁴Gerald R. Faulhaber, *The Economics of Network Neutrality Are "prophylactic" remedies to nonproblems needed?*

¹⁰⁵ *Ibid*

¹⁰⁶ Maureen Jeffreys & Theodore D. Frank, Recent Developments in the U.S. on Network Neutrality

¹⁰⁷ Verizon Communications Inc. v. FCC, 740 F.3d 623 (D.C. Cir. 2014), [http://www.cadc.uscourts.gov/internet/opinions.nsf/3AF8B4D938CDEEA685257C6000532062/\\$file/11-1355-1474943.pdf](http://www.cadc.uscourts.gov/internet/opinions.nsf/3AF8B4D938CDEEA685257C6000532062/$file/11-1355-1474943.pdf)

¹⁰⁸ Wyatt, Edward (November 10, 2014), *Obama Asks F.C.C. to Adopt Tough Net Neutrality Rules*, New York Times, available at http://www.nytimes.com/2014/11/11/technology/obama-net-neutrality-fcc.html?_r=0, last viewed on 20th August, 2015

¹⁰⁹ *FCC Releases Open Internet Order*, Federal Communications Commission, available at <http://www.fcc.gov/document/fccreleases-open-internet-order>, last viewed on 20th August, 2015

such as no discrimination, consumer privacy, etc.¹¹⁰ With limited exceptions the rule went into effect on June 12, 2015.¹¹¹

VII. NET NEUTRALITY IN INDIA

In the 66th Session of the UN General Assembly India for the first time took a stand on net neutrality. India stated that the Internet was “an unprecedented global medium” and it should be “inclusive, democratic, participatory, multilateral and transparent in nature”.¹¹² India recognized the growing nature of Internet and the requirement of Internet governance which should be a global solution and not conflicting and diversified national policies.¹¹³ India suggested setting up of a “multi lateral, democratic, participative and transparent global policy mechanism”- United Nations Committee for Internet-Related Policies “CIRP” comprising of 50 members.¹¹⁴ Internet governance by this multi-stake holder body would result in a more transparent decision making process relating to internet governance making sure that neither USA nor China would be able to exercise their dominance over regulating internet content.¹¹⁵

The issue of Net Neutrality in India acquired much attention in the year 2014 and 2015 when the telecom companies started adopting some tariffs derogatory to the principle of net neutrality. It attained a status of a complex debatable issue and the need of regulatory norms was in question. Till August 2015, there were no laws regarding Net neutrality in the regime and it can be said that still the telecom service providers are enjoying the freedom to control and prioritize the type or source of data. It was in 2006 when TRAI turned to various telecom industry bodies and

¹¹⁰ *FCC Releases Open Internet Order*, available at <https://www.fcc.gov/document/fcc-releases-open-internet-order>, last viewed on 20th August, 2015

¹¹¹ *Protecting and Promoting the Open Internet; Final Rule*, Federal Communications Commission, 80 *Federal Register*, 19738-19850, April 13, 2015

¹¹² *India's proposal for a United Nations Committee for Internet-Related Policies (CIRP)*, Statement by Digvijay Singh on Agenda 16, 66th Session of the UN General Assembly, 26th Oct. 2011, 1, available at http://www.itforchange.net/sites/default/files/ITfC/india_un_cirp_proposal_20111026.pdf, last viewed on 21st August, 2015

¹¹³ *India's proposal for a United Nations Committee for Internet-Related Policies (CIRP)*, Statement by Digvijay Singh on Agenda 16, 66th Session of the UN General Assembly, 26th Oct. 2011, 1, available at http://www.itforchange.net/sites/default/files/ITfC/india_un_cirp_proposal_20111026.pdf, last viewed on 21st August, 2015

¹¹⁴ *Ibid.*

¹¹⁵ Jeremy Malcolm, *India's proposal for a UN Committee for Internet-Related Policies (CIRP)*, INTERNET GOVERNANCE FORUM WATCH, available at <http://igfwatch.org/discussion-board/indias-proposal-for-a-un-committee-for-internet-related-policies-cirp>, last viewed on 21st August, 2015

stakeholders asking for opinions on the topic of net neutrality.¹¹⁶ TRAI in August 2014 rejected the telecom companies proposal of making the services like Youtube, Whatsapp, Viber share their revenues with the telecom companies.¹¹⁷ This whole debate gained public attention when Airtel in December, 2014 announced that the VoIP services will be charged additionally.¹¹⁸ Sites such as Youtube, Facebook, Twitter and Reddit were used as a platform to initiate a awareness campaign about the activities of the telecom companies. Again in April 2015 Airtel came up with the “Airtel Zero” scheme and Facebook in February, 2015 launched Internet.org.¹¹⁹ On 27th March, 2015 TRAI released its consultation paper on the OTT services seeking public opinion.¹²⁰ Now the Telecom Regulatory Authority of India's (TRAI) Consultation Paper on Regulatory Framework for Over-the-top (OTT) achieved the attention of this controversial debate. It was heavily criticized for being one sided and confusing and further more than 10 million people wrote to TRAI through the “Save The Internet” campaign voicing their support for net neutrality.¹²¹

VII.1. Principle of net neutrality implicit in India’s legislative framework

Theoretically it can be seen that the licensing norms, The Indian Telegraph Act, IT Act and The Competition Act, are in consonance with the principles of net neutrality. In India there is no distinction between telecommunications and internet services and both are subject to common carriage laws, unlike in US where FCC distinguished telecom and internet services and the internet service providers are exempted from common carriage laws. Law of common carriage is one of the principle on which the debate of net neutrality rests. According to law of common

¹¹⁶What is net neutrality and why it is important, The Times of India, available at <http://timesofindia.indiatimes.com/tech/tech-news/What-is-net-neutrality-and-why-it-is-important/articleshow/29083935.cms>, last viewed on 22nd August, 2015

¹¹⁷ Trai rejects telcos' proposal to charge fee on popular services like WhatsApp, Viber and Skype, The Economic Times. 19 August 2014, available at http://articles.economictimes.indiatimes.com/2014-08-19/news/52983474_1_data-revenue-whatsapp-voice-services, last viewed on 22nd August, 2015

¹¹⁸ What is Net Neutrality?, NDTV, available at <http://gadgets.ndtv.com/telecom/news/what-net-neutrality-voip-calls-such-as-skype-could-cost-extra-on-airtel-639283>, last viewed on 23rd August, 2015

¹¹⁹Facebook launches Internet.org in India, The Hindu, available at <http://www.thehindu.com/business/Industry/facebook-launches-internetorg-in-india/article6879310.ece>, last viewed on 23rd August, 2015

¹²⁰TRAI seeks views on net-neutrality, The Hindu, available at <http://www.thehindu.com/business/Industry/trai-seeks-views-to-regulate-netbased-calling-messaging-apps/article7039815.ece>, last viewed on 23rd August, 2015

¹²¹ Gandhi, Rajat (8 April 2015). "Net neutrality: Why Internet is in danger of being shackled". *The Economic Times*. Available at http://articles.economictimes.indiatimes.com/2015-04-08/news/60943272_1_net-neutrality-telecom-operators-viber, last viewed on 23rd August, 2015

carriage, once an entity has willfully made a public undertaking to transport persons or property for compensation, he cannot discriminate against any one individual.¹²²

ISPs in India are obliged to sign a license agreement before they are allowed to begin their operations in India. This license agreement is governed by Indian Telegraph Act, 1885.¹²³ The ISPs are under an obligation to comply fully with the terms and conditions of the license agreement and non compliance of which will lead to revocation of license.¹²⁴ Firstly, as per Clause 2.2, internet access is defined as “use of any device/technology/methodology to provide access to internet without any restrictions”¹²⁵ thus upholding the basic principle of net neutrality. Clause 10.7 says that it is the responsibility of the ISP to maintain Quality of Service (QoS) as the standards prescribed by TRAI and further they need to clearly define the scope of service to the customers at the time of contracting with them.¹²⁶ Under clause 32.1 the ISP is not allowed to employ bulk encryption equipment but is of responsibility to ensure protection of privacy of communication.¹²⁷ Additionally, under clause 8(iv) of the “guidelines and general information for grant of license” the ISPs under the license agreement are further obliged to take adequate and timely measures to ensure the security and protection of information transacted.¹²⁸ Under clause 8 (xvi) the TSPs must have proper hardware and software for doing the lawful interception and monitoring.¹²⁹

TRAI Act, 1997 empowers the TRAI under Section 12 (4) and 13 to issue directions to the service providers time to time for its proper functioning.¹³⁰ Clause 16.1 of the license agreement read with section 29 of the TRAI Act bounds the ISP legally to comply with TRAI’s tariff

¹²² Henry H. Perritt, *Law and the Information Superhighway* (New York: Aspen Law and Business, 2001)

¹²³ Indian Telegraph Act, 1885, available at <http://www.ijlt.in/pdf/files/Indian-Telegraph-Act-1885.pdf>, last viewed on 24th August, 2015

¹²⁴ THE INDIAN TELEGRAPH ACT, 1885, read with clause 10.2 of the License Agreement

¹²⁵ LICENCE AGREEMENT FOR PROVISION OF INTERNET SERVICES, MINISTRY OF COMMUNICATIONS & IT DEPARTMENT OF TELECOMMUNICATIONS, available at http://cca.ap.nic.in/i_agreement.pdf, last viewed on 24th August, 2015

¹²⁶ *Ibid*

¹²⁷ *Ibid*

¹²⁸ No.820-1/2006-LR , GUIDELINES AND GENERAL INFORMATION FOR GRANT OF LICENCE FOR OPERATING INTERNET SERVICES, Government of India, Ministry of Communications & IT, Department of Telecommunications

¹²⁹ *Ibid*

¹³⁰ TRAI Act, 1997, available at <http://www.ijlt.in/pdf/files/TRAI-Act-1997.pdf>, last viewed on 25th August, 2015

directions and non compliance of which shall be construed to be an offence imposing a penalty upon them.¹³¹

IT Act also enshrines in it some of the laws which promotes net neutrality and steers the functioning of the ISPs. ISPs are termed as the intermediate player in the two sided market. It falls under the domain of Intermediary as described under Section 2 (w) of the Information Technology Act, 2000. It is described as under:

*"Intermediary" with respect to any particular electronic records, means any person who on behalf of another person receives, stores or transmits that record or provides any service with respect to that record and includes telecom service providers, network service providers, internet service providers, web hosting service providers, search engines, online payment sites, online-auction sites, online market places and cyber cafes.*¹³²

The IT Act imposes certain liabilities on ISPs as they are thought to hold a dominant position in the interwebs so as to supervise the internet activities.¹³³ However the truth is that they are hardly in the best position to filter objectionable content and prevent commission of offences.¹³⁴ Thus Section 79 of the IT Act deals with situations where the ISPs are exempted from liabilities. Section 79 (1) states that an intermediary "shall not be liable for any third party information, data, or communication link hosted by him".¹³⁵ The section comes with some conditions- that is where the intermediary does not initiate the transmission, select the receiver of the transmission, and select or modify the information contained in the transmission.¹³⁶ Though under Section 79 (2) (c) the ISPs had reasons to actively monitor data under "due diligence" without aiding or

¹³¹ LICENCE AGREEMENT FOR PROVISION OF INTERNET SERVICES, MINISTRY OF COMMUNICATIONS & IT DEPARTMENT OF TELECOMMUNICATIONS, available at http://cca.ap.nic.in/i_agreement.pdf; TRAI Act, 1997 available at <http://www.ijlt.in/pdf/files/TRAI-Act-1997.pdf>, last viewed on 26th August, 2015

¹³² IT Act, 2008, available at [http://police.pondicherry.gov.in/Information%20Technology%20Act%202000%20-%202008%20\(amendment\).pdf](http://police.pondicherry.gov.in/Information%20Technology%20Act%202000%20-%202008%20(amendment).pdf), last viewed on 26th August, 2015

¹³³ Kahandawaarachchi Thilini, *Liability of Internet Service Providers for Third Party Online Copyright Infringement: A Study of US and Indian Laws*, 12 (6) JOURNAL OF INTELLECTUAL PROPERTY RIGHTS (2007) 553-561

¹³⁴ Mark A. Lemley, *Rationalizing Internet Safe Harbours*, 6 J. ON TELECOMM. & HIGH TECH L. 101, 102, available at http://jthtl.org/content/articles/V6I1/JTHTLv6i1_Lemley.PDF, last viewed on 26th August, 2015

¹³⁵ IT Act, 2008, Available at [http://police.pondicherry.gov.in/Information%20Technology%20Act%202000%20-%202008%20\(amendment\).pdf](http://police.pondicherry.gov.in/Information%20Technology%20Act%202000%20-%202008%20(amendment).pdf), Last viewed on 25th August, 2015

¹³⁶ *Ibid*

abetting any unlawful activity.¹³⁷ On 11th of April, 2011 when the Government formulated Information Technology (Intermediary Guidelines) Rules, 2011, it clarified the scope of the term “due diligence” in clause 3 of the Rule stating that “intermediary shall not knowingly host or publish any information or shall not initiate the transmission, select the receiver of transmission, and select or modify the information”.¹³⁸ Thus it is quite evident that the ISPs only in certain situations may interfere with the activities in the internet and only those ISPs are exempted from the liabilities which do not monitor or interfere with internet content.

Though no such effective laws regarding net neutrality is available underpinnings of the principle can be found in these Acts. However it is quite apparent and ironical that no ISPs have ever been sanctioned for non obligation of the norms provided under the Acts. Thus a more comprehensive and direct regulation is required in order to regulate and facilitate net neutrality.

VIII. DEVELOPING A REGULATORY FRAMEWORK FOR INDIA

In this rapidly developing technological industry it is almost impossible to say what is best for the future. After doing a case study analysis of different countries approach towards the regime of net neutrality the question remains that whether it is desirable or indispensable to codify the internet neutrality as national laws for India. The author is of the view that the legislation should not build up as a step in hurry although India is no far from the position when a legislation mandating net neutrality would be obligatory as the instances disparaging net neutrality noted above are rising with an alarming regularity.

So as to build an appropriate regulatory model several considerations must be kept in mind and taking inklings from the different national approach. *Firstly*, the legislation should focus in banning any blocking or filtration of data packets; prohibiting preferential and discriminatory treatments to users and enumerate certain exceptions such as national security and others to the rule taking clues from the Dutch legislation. *Secondly*, it may tread on the path taken by Oftel in UK by making it obligatory for the ISPs to disclose their peering and transit agreements bringing a certain degree of transparency. The legislation should aim at making it obligatory on the part of the ISPs to make the traffic management policies public. *Thirdly*, it must adopt a clear, direct

¹³⁷ *Ibid*

¹³⁸ Information Technology (Intermediaries guidelines) Rules, 2011, available at [http://deity.gov.in/sites/upload_files/dit/files/GSR314E_10511\(1\).pdf](http://deity.gov.in/sites/upload_files/dit/files/GSR314E_10511(1).pdf), Last viewed on 25th August, 2015

and unambiguous rule defining the terms “reasonable network management” and “non-discriminatory practices”. The narrowly defined definitions fail to capture the unpaid degradation and prioritization like the “application bias”. Thus the laws must ensure that any discrimination no matter how trivial or potentially beneficial must pass through a regulatory check and weighed up through a framework of reasonable network management and not undergo an automated process to pass. **Fourthly**, it must assess the existing telecommunication and anti-trust laws and see to it that they are adequately placed and implemented as in many cases anti discrimination and anti competitive laws are already available to restrict ISP activities and if not so take measures to increase the effectiveness of such laws. **Fifthly**, legislations must ensure that switching costs of consumers are low and they can quickly and efficiently end the agreement disagreeing with the terms and quality of service of the ISPs. This would ensure competition in the industry. **Sixthly**, the regulators must be ensured with the power to determine a minimum QoS over the internet services where prioritization and discrimination degrades the internet. **Seventhly**, a self regulated approach may be adopted as is constantly advocated by the FCC in which the market drives itself towards a self regulation. For example, the ability to generate demanded content will bestow them greater bargaining power. It is the golden rule of internet that 90 percent of all requests are for just 10 percent of the available content and hence those who command over that 10 percent will have the entire negotiating cuff.¹³⁹ **Lastly**, even despite the above recommendations, discriminatory and preferential behavior continues the legislative body should focus in specifically targeted net neutrality regulation and a regulatory body with expertise apart from TRAI presiding it.

Further there exists a conflict over the approach to be adopted in case of violation of net neutrality laws and principles. Under TRAI there will be ex-ante regulation of net neutrality principle which means any form of activity that may be in contravention of the adopted rules will be barred beforehand.¹⁴⁰ On the other hand, competition law follows ex-post regulation which require the act to take place and then call for the CCI to investigate and take action over that violation. The Department of Telecommunication (DoT) committee report suggested

¹³⁹ Rohan Kariyawasam, *Internet Connection: where are we going?*, Computer and Telecommunications Law Review, 2000

¹⁴⁰ See Licence Agreement for Internet Services, Department of Telecommunications, Ministry of Communications and Information Technology, January 25, 2010 available at <http://dot.gov.in/data-services/ds-cell>

consideration of ex-post regulation.¹⁴¹ This will firstly, reduce the regulatory costs as they would not be incurred unless the violation takes place and secondly, will help in determining the real world effects of the anti net neutrality ways. The author is of the view that the approach must be a combination of ex post and ex ante regulation whereby every tariff plan should be filed before TRAI or such regulatory body and will be observed on ex ante basis and any complaints regarding the plans must be dealt on an ex post basis.

IX. CONCLUSION

In India, given the number of people using telecommunication services, traffic congestion has amplified and is likely to increase even more in the upcoming years. The theory follows a twofold effect which is given by the proponents and opponents of this issue. The opponents of the concept are of the view that an increased bandwidth on a priority basis is required to be sent to the ones using youtube, skype, etc. as slow net would hamper the service whereas the proponents are in favour of the blanket ban meaning “one size fits all”. They are not in demand of any extra privilege other than access to all the websites and data packets on equal basis. Net neutrality is an assurance that the websites will not be required to pay an extra sum for faster access to their sites, their content will not be blocked unless illegal and all the data packs should be given equal treatment. The concept of fast or slow lanes should be eliminated. The access to internet is our right and preferential treatment would obliterate the open internet as well as our right. The extra cost would ultimately trickle down to the customers in the long run. There cannot be a simple and one way solution to this issue and framing legislation requires a lot of deep thought and consideration. A balance between discrimination and considerably changing the present scenario is needed but coming to this point of balance is itself conflicting. Owing to the vastness of the subject, views put forward by the authors pertaining to this concept is not conclusive rather only suggestive and selective. At the end of the day it is a battle between the proponents and opponents the ISPs and the content providers and the consumers and the winner is decided on the basis of whether the principle of net neutrality has been appointed and enshrined in the legislative framework or not.

¹⁴¹ Department of Telecommunications, Government of India, “Net Neutrality, Dot Committee Report”, *Department of Telecommunications* accessed July 17, 2015, http://www.dot.gov.in/sites/default/files/u68/Net_Neutrality_Committee_report.pdf.

Network neutrality, or simply net neutrality, is the principle that Internet service providers (ISPs) treat all data on the Internet equally, and do not discriminate or charge differently by user, content, website, platform, application, type of attached equipment, or method of communication [1], [2]. Net neutrality advocates claim that such discrimination weakens content providers' (CP) investment incentives since ISPs can expropriate. An objective of network neutrality is that the design of regulations for the Internet will ensure that it remains a public, open platform where innovations can thrive. While there is broad agreement that preserving the content quality of service falls under the purview... If net neutrality wasn't a factor in the development of the internet, what would its absence mean? One outcome is the arrival of fast lanes on the internet. ISPs could give customers a choice of different types of access. In marketing, this is a form of segmentation, said Yildirim. That means a company would provide different products and services to cater to the needs of different users. But fast lanes would benefit websites that can afford to pay at the expense of smaller e-commerce or content sites without deep pockets. That, I think, the concern here. Explore the latest strategic trends, research and analysis. Subscribe for updates. A weekly update of what's on the Global Agenda. Net neutrality is new, but regulating the service providers is not. Laws limiting competition amongst telecom providers are nothing new they date back to 1931 with the Federal Communications Act. And more recently, the Telecommunications Act of 1996. These laws that regulate how infrastructure can be built and who controls it, are what created an opportunistic market in the first place that led to only a few major players. Why would anything be different now, if net neutrality was repealed? Great question! Two major things. This is an argument frequently referenced by the supporters of net neutrality why do the big guys all advertise as committing to Net Neutrality? Isn't it blatantly obvious? The big cable companies WIN when we retain Net Neutrality! Net neutrality is the concept that Internet users should be the ones who control what they see on the net, not internet service providers (ISPs) or the government. Among the specific rights lobbied for under net neutrality are: The deregulation of content (other than that which is criminal, such as child pornography); Open access to all sites and platforms; The prevention of ISPs from charging extra for access to "premium" sites.