Network Neutrality:

Seeking the Best approach to Regulating the Broadband Internet Access Market

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**Abstract:**

Network neutrality is a widely debated policy issue that has the potential to alter the dynamics of accessing online content. The main focus of the debate revolves around analyzing whether broadband internet access market should be regulated under strict net neutrality rules that impose a total ban upon the contested practices of blocking, throttling and paid prioritization, or if a light-touch regulatory approach will better foster its dynamics.

The increased regulation that the market is currently undergoing is controversial, given that the challenges that are threatening to disrupt the market are largely theoretical, thereby challenging its implementation. Although ISPs use traffic management techniques that leave them with ample margin to engage in potential abusive practices at different levels of their infrastructure, this seems unlikely to occur and in any case is mitigated by their countervailing interest. Therefore, it is argued in this research paper that according to the policy goals sought by policymakers and regulators, the recently implemented net neutrality rules both in Europe and America will have a pervasive effect that will unwittingly bring about unwanted consequences; such as being a deterrent to broadband investment or innovation.

Light-touch regulation is thus proposed as a more suitable approach, given that net neutrality appears to be an investment and competition problem, not a regulatory issue. Minimal regulation will provide greater incentives for the further development of the market, leading to a trade-off that will be determined by the market and not by interventionist policies, maximizing total welfare.

After analyzing the main issues surrounding net neutrality, an innovative conceptualization of the broadband internet market will be suggested; namely high-income fee to funding infrastructure. In this approach is stressed the two-folded nature of the market, seeking to procure a cost-efficient allocation of broadband investment, whereby the different competing interests are reconciled.
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Chapter 1: Introduction

1.1 Overview

The internet has drastically reshaped the way we communicate, behave and interact with each other, opening a space of countless wide-ranging opportunities. This trend is irreversible and in 10 years from now the internet will be even a more indispensable motor for socio-economic behavior worldwide. Internet was much simpler a decade ago; as it was based on a simple architecture, in which computers could transmit information, or the so-called ‘packets’, which were not inspected by the providers. Yet, recent technological advances, such as Data Packet Inspection (DPI) have enabled Internet Service Providers (ISPs) to examine these data packages and learning about the content being transmitted; bringing about new challenges as a result of the implications that the different internet traffic management techniques being used by ISPs may have at different levels of their infrastructure.

As the internet is evolving into a commodity and new services are emerging, mainly television over the internet, devising a suitable regulatory framework became arguably essential to accommodate the existing competing interests among the businesses and the public. Network Neutrality (Net Neutrality) was first coined by Columbia Law school professor Tim Wu in 2003, meaning that the internet is simply a carrier of content, which does not distinguish from one website to another. ²Net neutrality was and remains being the cornerstone of this sweeping phenomenon, as it ensures that the net is an open space in which every individual can get equal access to all the online content without any discrimination as to the type of content.

This research paper will analyze net neutrality by scrutinizing the function its plays toward safeguarding the interest of major contend providers, small and medium-sized businesses (SMBs) and consumers, stressing the challenges that they would be facing if ISPs succeeded in their goal of becoming internet gatekeepers. Indeed, it can be argued that lack of regulation will hamper net neutrality to materialize, as it can lead to discriminatory practices such as

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¹ Chad Dickerson, 'Etsy CEO: How Net Neutrality Shaped My Life' (Backchannel, 20 February
² Patrick Kingsley, 'Open Internet' (The Guardian, The Wu master: The internet as a model of free speech and access is coming to an end, says web expert Tim Wu)
blocking, throttling or traffic prioritization.\(^3\) For instance, it may pave the way for ISPs to impose a new pricing structure, whereby they could charge major content providers with a fee in return for preferential access, analogous to faster lines.\(^4\)

ISPs may be potentially driven to do this because of their long sought goal of reducing network operational expenditure, whilst providing an enhanced user experience in line with today’s rapid development and consumer expectations. Against this backdrop, competition is likely to be severally undermined, as SMB that cannot afford the cost of this premium service will be automatically placed in the slow lane. This will limit their scope, blurring some of the underlying principles in which the internet was based on toward becoming the overarching tool that is today. Accordingly, innovation and economic growth may be fettered, ushering in a new period in which the internet will move away from being an open, fair, and free space to becoming commercial tool, akin to television bundled services.

Although the recent regulations implemented both in Europe and America intend to keep the network neutral, as further evidenced by the public statement held by Obama\(^5\) in which he emphasized that treating internet traffic equally was the reason why the internet experienced such an unprecedented growth and innovation during the last decade, the debate is still ongoing. ISPs such as Comcast or Verizon do not seem to be willing to desist in their attempt of retaining commercial freedom, being substantially a battle for power, given that internet became today’s most coveted asset. Moreover, the potential implications that regulating a capital-intensive dynamic market through comprehensive rules may entail and the ulterior functioning of some aspects thereof, render the recent implemented net neutrality rules contestable.

On the one hand, we have advocates of net neutrality, including popular content providers such as Google, Yahoo or Netflix who advocate maintaining the status quo, as they do not embrace ISP’s ambition of having an unregulated or slightly regulated market because of the potential adverse effect it may have upon their business.\(^6\) Other supporters of this line of

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\(^5\) Robert Faris and others, ‘The Berkman Center for Internet & Society at Harvard University’ [2015] 1(1) Score Another One for the Internet? The Role of the Networked Public Sphere in the US Net Neutrality Policy Debate 3.

\(^6\) Supra at 4.
thought can be found in start-ups, SMBs and consumers, given that they fear abuses on their part as a result their weaker bargaining position.

On the other hand, ISPs oppose to this increased regulation of the market. They are not willing to invest to maintain and upgrade their services, whilst content providers do not carry any cost, free-riding their infrastructure. This is arguably an unbearable cost for ISPs, given that they are required to continuously streamline their infrastructure to keep pace with this fast-paced evolving technology. Therefore, proponents of this stance content inter alia that investment will be undermined if they are required to comply with stringent rules; as otherwise the cost will be passed into the consumers. Also, the threats of abuse by ISPs seem to be largely theoretical rather than empirical as a result of their countervailing interest, making ex-ante regulation to be a potential deterrent to a market that is inherently dynamic.

As stated by Tim Berners-Lee, the founder of the World Wide Web, internet is the basis of a fair competitive market economy, stressing the need for a neutral net. Yet, it will be analyzed as to whether the recent net neutrality rules are adequate to achieve the sought policy goals. It will be weighted whether they are the most efficient way to regulate the market in light of the given threats, or if some other less intrusive alternative will be more suitable by its greater flexibility to adapt to changed circumstances and to embrace novel business models.

The drastic increase in demand for online service during the last decade is the main reason why this fierce struggles to become prevalent has been sparked. Considering the essence of having a neutral net is to further the development of the internet and its valuable features toward maximizing welfare, it seems overriding to overcome the hurdles posed by this phenomenon. Thus, it will be concluded in this paper that in order to settle this controversial issue is essential to devise an adequate economical scheme that complement the legal framework. A theoretical approach will be presented in this paper, seeking to reconcile some of the shortcomings found in the solutions proposed to date, as they have hitherto proved arguably inadequate.

Mozilla approach will be used as a yardstick for this proposal, as it contends that the market is two-folded; including edge providers.

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The new approach suggests that successful content providers getting revenue above a certain threshold should contribute with a fee toward funding infrastructure, similar to the high-income tax approach seen in some jurisdictions. Although it could be based upon the same legal principles, this is an innovative manner to allocate the costs of building new infrastructure and ensuring further investment in new technologies among the different whole-market players, considering they have the shared interest of benefiting by providing enhanced services that will continuously increase demand and thereby profit. The economic implications of this proposal is outside the scope of the paper, yet its succinct the main challenges presented throughout this research, seeking to draw the most efficient trade-off among the competing interests.

1.2 Purpose and Structure of the thesis

This research paper will focus on analyzing the legal framework regulating net neutrality as a result of its polemic scope and potential implications. It will be reviewed the rationale behind the decision that prompted the European Parliament and the FCC (Federal Communication Commission) to regulate the broadband interment market under the recently implemented net neutrality rules both in Europe and America. Subsequently, it will be analyzed whether or not in light of the threats that the market is facing this approach can be considered as the best way to regulate it.

First, this paper aims to seek the best regulatory approach for regulating this market by looking at the policy goals being sought. It will thus be weighted whether these rules are reasonable and proportional in view of the existing challenges and purposes pursued.

Second, a large array of legal, political and market-based arguments for and against the current rules will be presented in order to get a better insight as to the potential implications of passing a comprehensive set of rules. The main analysis of the paper is thus directed at seeking a trade-off that reconciles the interest of the different market players toward maximizing total welfare. Thereby, a light-touch regulatory approach will be suggested as an alternative to the current rules, as its less interventionist role will arguably better adapt to the inherent dynamics of the market. Also, it will be analyzed whether this approach would be self-sufficient to deal with potential market failures and abuses, or if it is dependent on some sort of preemptive measures.

The last part of the essay will put forward the symbiotic relationship between law and economics that characterize this market. It will be presented the aforesaid theoretical approach to regulating the market, which attempts to suggest an innovative conceptualization of the
market toward spurring on investment in broadband networks through an arguably innovative cost-efficient allocation of resources.

### 1.3 Legal Questions

The subject matter of this paper revolves around two central legal issues. First, it analyzes whether or not European and American legislators sufficiently grounded upon law and consistent factual data their legislative authority for regulating the broadband internet access market. It must be noted that the discussion as to whether legislators were granted an adequate source of power toward enacting the recent net neutrality rules is mainly discussed with regard to America, given its greater legal precedent. Second, it reviews whether this robust regulation that totally bans the contested practices of blocking, throttling and paid prioritization is needed in order to safeguard the rights of the different market players involved, or if a light-touch regulatory approach will better foster the dynamics of the market. Therefore, the main focus of the research paper lies on analyzing a number of competing arguments about the potential harms threatening the market and thus weighting them with regard to the implications that the current net neutrality rules may entail, seeking to find the best regulatory approach to regulating the given market.

Regarding the first legal question, European legislators recently implemented rules on net neutrality and apply as of 30 April 2016, following the adoption of Regulation (EU) 2015/2120. This regulation seems to have a solid legal basis, as it was established through the European democratic law-making process. Yet, these mainstream rules are contested, considering *inter alia* that the market is arguably sufficiently competitive, thereby not meeting the competition policy test required for the implementation of sector-specific rules. The main focus in Europe will thus revolve around discussing the potential effect and scope of the rules.

In America, Section 706 of the Telecommunications Act 1996 is especially relevant, as the previously overridden Open Internet Rules in America were based upon them. They were overturned in Verizon v FCC\(^ {11}\) by the D.C Circuit, as it was held that the FCC exceeded their authority when treating ISPs as common carrier. Thus, it will be analyzed whether the FCC has successfully grounded the Open Internet rules 2015 under this section.

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11 740 F.3d 623 (D.C. Cir. 2014); 11-1355 (2014).
Subsequently, it will be discussed whether American legislators were legally entitled to reclassify this market as a public utility under title II of the Communications Act 1934. The ruling given in the Brand X\textsuperscript{12} will be used as a starting point, given that the court held that the FCC had leeway to decide as to how different categories of services should be classified. Yet, other arguments opposing this classification will be put forward in order to reach a better understanding as to the purview of this legal instrument; for instance it is argued that this change need to be supported by sufficient evidence and that cannot thus be done on a whim of the FCC.

Regarding the second question, it will be analyzed the suitability of pre-emptive sector-specific regulations when compared to \textit{ex-post} remedies both in Europe and America. The latter has been the preferred approach for governing the market from the onset, allowing the market to develop as a result of its minimalist approach and making the internet to become the important socio-economic tool that is today. Thus, it will be scrutinized as to whether \textit{ex-ante} and \textit{ex-post} regulations have a symbiotic relation that strengthens their best attribute, or if the former is just a transient measure. The rationale of this analysis is aimed at assessing the suitability of the current rules from a different standpoint, in particular by deeper looking into the implications that preemptive measures may entail.

The core of the thesis will be devoted toward presenting a number of competing arguments about the need of regulating net neutrality through robust rules. Pro net neutrality advocates \textit{inter alia} the need to prevent a tiered internet or ISPs acting as internet gatekeepers. Yet, this view will be contrasted with arguments contending otherwise; such as less incentive to innovate or invest; allowing me to analyze which set of arguments are overriding in light of the sought goals. Thus, it will be concluded whether this increased regulation is justified and needed, or if some other alternative regulatory approach will be more suitable in the given market.

\textsuperscript{12} NCTA v. Brand X, 545 U.S. 967 (2005).
1.4 Methodology

The study is methodologically designed to be based on a legal analysis of the regulatory framework currently governing net neutrality. American and European current net neutrality rules have been used as primary source materials. Secondary sources consisting of books, journal articles and an array of online available content have also been employed in order to present a critical analysis as to the adequacy of the current legal framework governing the broadband internet market. In addition, theories, public statements, and critical comments are used to put into perspective the wide-ranging connotations surrounding this phenomenon.

Considering there is not much literature analyzing the recent changes that the market has undergone during the past few years, the study is mainly carried out by looking at some critical views and proposed alternatives in order assess the implications of regulating such a dynamic market through heavy-handed rules and analyzing the suitability of any potential alternative approach.

A light-touch regulatory approach will be proposed as an alternative toward governing net neutrality, consisting in a more de-regulated market with arguably higher incentives to further investment and innovation, in which any potential failure or abuse will be redressed by ex-post regulation. This has been developed throughout this paper by relying on several proposals suggested by a number of scholars and using as bedrock the thriving effect of the preceding light-touch legal framework governing the broadband internet market in the given jurisdictions. In each section of this essay is concluded the support for this approach, given that after analyzing competing arguments, my view is that is paramount to leave this market ‘unfettered’.

Ultimately, a theoretical approach will be put forward in the last section, highlighting the importance of seeking an effective interplay between law and economics toward ensuring the implementation of an efficient regulatory framework. This has been carried on by analyzing the different given arguments and finding a middle point among the competing interests. It must be noted that this proposal is not intended to be comprehensive, but it aims to highlight an alternative viewpoint; aiming to reconcile it main implications.
Chapter 2 – Analysis of Net Neutrality Legal Framework

In the first section of the chapter it will be presented some background discussion as to the regulatory mechanisms governing the market prior to the implementation of the recent net neutrality rules. Thereon, this chapter will analyze the legal foundations that European and American legislators have resorted to for grounding the increased regulation of the market and the blanket ban imposed upon the contested practices of blocking, throttling and paid prioritization.

Subsequently, it will be presented some of the arguments employed for justifying the implementation of these robust rules; thus they will be contrasted with arguments challenging this departure from the preceding light-touch regulatory approach. This will help to illustrate some of the potential implications that a comprehensive framework may bring about and question its suitability.

2.1 Legal Basis for Regulating Net Neutrality in Europe

The 2009 EU telecoms reform introduced new safeguards for ensuring a more open and neutral net, at the same time as it sought to protect consumer rights to internet access. Although not express reference to net neutrality were enshrined within the different directives, apart from an annex in 2009/140/EC which included a commission declaration on net neutrality, it could be implied a clear will from EU legislators to include net neutrality as a policy objective to be promoted by national regulatory authorities. This can be evidenced by recital 28 of the directive 2009/136/EC, stating that end-users should decide what content they want to send and receive. The European commitment to preserve the inherent functionalities of the internet can be further illustrated by article 8.4 of the Framework Directive (amended by Directive 2009/140/EC), where it was first conceptualized consumer protection toward ensuring ‘user’s ability to access and distribute information and to run applications and services of their own choice’.

Similarly, the transparency requirements contained in the Universal Service Directive (amended by Directive 2009/136/EC) and the requirement of a minimum quality of services enshrined in article 22.3 of the same directive seem to have a bearing on net neutrality. They set limits with regard to ISP’s practices, limiting restrictive traffic management and imposing reporting requirement upon them; when changes on any conditions limiting access and use of
services and applications have occurred. Also, the European Regulators of Electronic Communications (BEREC) was created in 2009 to ensure coherence and harmonization when transposing EU directive into national law, whereby seeking to promote uniform actions by the National regulatory authorities (NRA).\textsuperscript{13}

Although some scholars have argued that broadband internet is not included in the universal service obligation and its provisions thus should not be applicable to net neutrality issues, this argument is vulnerable in at least two ways. First; it can be contended that a connection to the public telephone network allows the supply of both telephony and broadband services and given that the physical last-mile connectivity is the same, the obligations should be the same. Second, in accordance with the EU Framework Directive, NRAs must ensure that, in the context of their day-to-day work, they take all reasonable measures to achieve certain policy objectives listed therein. These include ensuring that end-users derive maximum benefit in terms of choice, price and quality and that there is no distortion or restriction of competition in the electronic communications sector, including in the transmission of content. Therefore, the provisions of the Universal Service Directive can be useful in ensuring that consumers are not affected by certain practices of ISPs, and, as mentioned, derive maximum benefit when accessing electronic communication services (telephony or broadband through which online content is provided).\textsuperscript{14}

However, this fast-evolving market brought about new challenges, giving rise to news inconsistencies and potential threats. For instance, the relationships between ISPs and content providers are evolving and commercial actors are addressing scalability issues and taking advantage of new technologies and business opportunities. Similarly, new forms of interconnection, new market solutions for content delivery or the contested “sponsored data plans” seemed to give persuasive grounds for regulatory intervention.

It is starkly evident that in the recent decade the EU has striven toward regulating the broadband market aiming to strike a balance between the interest of consumers and ISPS, envisioning greater consumer choice and higher standard of services at a lower price by strengthening competition and consumer’s protection through a sound regulatory framework.

Consequently, the EU commission contrived a forward-looking review of Internet development and governance, giving rise to a new set of rules. EU TSM regulation (telecommunication single market) applies as of 30 April 2016, following the adoption of

\textsuperscript{13} Cristina Cuellell March, “Faculty of Social Sciences and Human Sciences” (2011) Net Neutrality Freedoms under the European Union Telecoms Reform 2-8.

One of the two main parts of this regulation is made out of rules on Net Neutrality (Open Internet).

2.2 Legal Basis for Regulating Net Neutrality in America

During a relative long time, Net Neutrality, or the equal treatment of all websites by ISPs, has been one of the most technological policies issues in America. The congress expressed its preference of leaving advanced services like broadband ‘unfettered’ by both state and federal regulation, resulting in a minimalist approach that prevailed for more than a decade, being incredibly successful when measured by a range of metrics. Yet, federal regulators recently elected to drastically alter this approach to broadband by seeking to regulate the market. This decision has raised numerous questions about the reach of FCC authority over broadband and the implications of regulating a once thought immune market.

Internet access was previously classified as a ‘information service’ under title I, conferring upon the FCC ‘ancillary’ regulatory authority. Yet, during the past many years the Commission developed an alternative theory to regulate under Title I. They thus relied on section 706 of the telecommunication act of 1996 for grounding the Open Internet rules passed in 2010, seeking to prevent large corporations like Verizon and Comcast from stifling competition and innovation in the online market. Section 706 aims to promote competition whilst reducing regulation, in order to secure lower prices and higher quality of services and to encourage the rapid development of new technology. Thereby, before the article is invoked, the FCC is required to conduct a prior study providing evidence that the telecommunications services are not being deployed at all Americans in a reasonable and timely basis.

Assuming that is the case, the congress can ask the commission to undertake measures, provided they identify a barrier combined with evidence, showing that it impinges on infrastructure investment or there is existing sufficient evidence indicating that competition is at risk of being disrupted at the local telecommunication market. Although Section 706 arguably gives the FCC the authority to regulate ISPs to pursue the aforementioned policy

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15 Supra at 10.
17 Ibid
goals, it is not clear how that would allow the commission to safeguard net neutrality due to its rather limited scope.

Thus, the regulation was struck down in 2014 after Verizon appeal. The D.C circuit deemed it to be based on a flawed legal foundation.  They regarded the actions taken by the FCC as tantamount to common carriage obligations falling under title II, thereby, exceeding their authority, by obliging carriers to furnish services to all comers at reasonable and nondiscriminatory rates. Without net neutralities rules, the online market faced a large array of challenges, widely feared by the overriding majority of market players that were not dominant ISPs.

The FCC was left with two paths, either reversing the presumption that paying for services would violate FCC rules and place the initial burden of proof on the complaining content provider, thus continuing to ground the rules under 706 or leaving the presumption in place and ground the rules under the tougher regulatory system envisioned by title II of the Telecommunication Act. The FCC sought to proceed with the first option, yet president Obama ordered the independent commission to change the course, opting for a third path; namely new rules under section II. These rules eliminated the case-by-case process and established a full prohibition on paid prioritization, blocking and throttling.

Consequently, the recent Open Internet rules are grounded in the strongest possible legal foundation by relying on multiple sources of authority, including: The aforementioned Section 706 and title II of the Communication Act 1934, which reclassifies broadband as common carriers with all the rights and responsibilities that it implies. The rationale behind this decision was voiced by Tom Wheeler, the commission chairman, who asserted that the FCC strive toward devising the most expedient way to warrant innovation and consumers rights, as without these set of rules the internet’s core role of being a space for free expression and realization of democratic rights will be at stake. The main purpose sought by the legislators was to ensure an open internet, in which the internet is not blocked or divided into lines at ISP discretion.

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19 The Court did so because the rules imposed per se common carrier requirements on Broadband providers, being in contrast with FCC decision to reclassify broadband internet access as purely an information service under title I.
21 Ibid.
The FCC yearlong path to issuing rules to ensure an open internet precipitated an extraordinary level of political involvement, from grass-route populism to the white house. Indeed, the record-breaking 4 million commenters who partook in the FCC’s open internet calling for title II reclassification evidenced practically public consensus about the impending need to regulate the online market according the recent reclassification in order to ensure that America’s broadband network is fast, fair and open. Interestingly, it is worth noting that the vast majority of these comments were driven by advocacy groups, arguably advocating positions that could not reasonably be attributed to those submitting them.22

2.3 Legal Scope of European Net Neutrality Regulation

The rules have been followed by BEREC guideline on 30 August 2016 in Net Neutrality in order to contribute to its consistent application. These guidelines are hailed as a victory for the free and open internet, as they clarify vaguely worded that experts said that were under the risk of being exploited by telecoms. The regulation enshrine the principle of Net Neutrality into EU law: it prohibits ISPs from blocking, discriminating or slowing down the internet traffic except when necessary. These exceptions were clarified by BEREC, limiting them to the following cases: traffic management to comply with a legal order, to ensure network integrity and security, and to manage congestion, provided that equivalent categories of traffic are treated equally. It must be noted that ex-ante sector-specific regulation can only be imposed if it is considered that there is insufficient competition in the telecommunication market, being supposed to roll back as soon as the market becomes competitive again. Hence, it makes the European Network debate about neutrality to be largely grounded in law and economics.

NRA further complement the application of the TMS, as they are empowered to monitor market developments, assessing traffic management, commercial practices and agreements toward effectively enforcing the regulation. Furthermore, they are also assigned the task of reflecting advances in technology, being empowered to take appropriate measures to that end, ensuring end-users enjoy an open internet service of good quality. Thus, when considered appropriate they can set minimum quality of services requirement on ISPs in order to prevent the degradation of services.23 This policy can be understood as a light-touch regulatory

22 Supra at 16.
23 Supra at 5.
approach that attempts to strike a balance between ensuring investment from ISP’s and safeguarding consumer’s rights.

Despite attempts of the broadband providers to thwart this regulation of the market, it has been passed even more stringent rules that the one adopted in 2015 in America. As stated by Wilhelm Eschweiler, the vice president of Germany’s telecom regulator Bundesnetzagentur and current chair of BEREC, the regulations are a more robust and more legal-based approach.\(^{24}\) Also, it must be noted that public awareness seem to have played an important role, as the fear of users regarding the risks associated with having a not neutral net seem to have become mainstream, lobbying the implementation of these rules by bombarding the internet with statements as to the need of having an open internet toward ensuring a thriving internet. Save the internet.eu has been a remarkably lobby group, as it contains over 5000 million statements therein.

This regulation seem as a victory for the future of broadband internet services, as it seeks the most efficient trade-off among the competing interests toward ensuring the further development of the internet, focusing on safeguarding its inherent characteristic as an open and neutral space. Yet, given the fact that various articles of the TMS do not provide clear guidelines, there is a risk that broadly drafted provisions are subjected to a restrictive interpretation, resulting in over-regulation of ISPs. Thereby, it is feared by those advocating this argument that if that was the case, the benefits of consumer welfare will be unwittingly scarified on the otherwise laudable attempt of ensuring an open internet.

Notwithstanding the guidelines passed by the BEREC, the policy scope of the regulation covers wide-ranging business practices, hindering its effective application. A risk of under- and over-enforcement may harm the market, being particularly worrying the latter. Over-enforcement can give rise to the called ‘type I’ error,\(^{25}\) in antitrust parlance. This can occur through the implementation of rigid, doctrinaire net neutrality policy that prevents commercial practices that are not per se anti-competitive.\(^{26}\)

In any case, it can be argued that the symbiotic relationship between ex ante and ex post regulation seem to be fundamental given the challenges that this rapid-evolving phenomenon

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\(^{24}\) Catherine Stupp, 'Europe will have stronger net neutrality rules than the US, regulators say' (Euractiv, 8 June 2016) <https://www.euractiv.com/section/innovation-industry/news/europe-will-have-stronger-net-neutrality-rules-than-the-us-regulators-say/> accessed 18 October 2016.

\(^{25}\) Type II error represents situations where the legislators do not take regulatory intervention when the intervention would have increased social welfare.

\(^{26}\) Peter Alexiadis, 'Antitrustlaw' [12/06/2016] EU net neutrality policy and the mobile sector: the need for competition law standards 2-4.
faces and the current degree of maturity of EU law. Moreover, considering the re-thinking that the EU electronic communications Regulatory Framework has undergone over the course of 2016, and the wide-ranging commercial relationships evolving across the internet, it appears that the sole analytical basis upon which the TSM regulation can be best interpreted and applied is one that is in accordance with competition law principles. Many of the recitals contained within the regulation evidence this, by specifying that they have to be interpreted in light of ex post principles.

For instance, Recitals 7 or 8 revolving around non-discrimination principle exemplify that net neutrality is based on the logic and flexibility of competition policy, as consumer welfare implications are particularly complex to be construed in commercial contexts; thereby calling for case-by-case judgments of merits. This Ex post application will arguably diminish the potential risk of over-regulation, as they apply realistic market-based approach in each case, conducting consumer welfare test in order to determine whether the essence of the consumers rights affected have been violated. 27

Therefore, it can be argued that TMS regulation must at the very least be aligned with EU competition law because of its greater suitability for dealing with this multi-sided market; given that the interplay of many complex factors and many diverse market players hampers its application. Indeed, if a type I error does occur, this will unwittingly be counter-productive as the market will consequently suffer a downturn.

Chapter 3 will further elaborate upon the arguments opposing this comprehensive regulatory approach. A more flexible and less interventionist regulatory framework will be argued as a more suitable approach in light of the actual functioning of the market, its inherent driving force and the actual challenges they are facing.

2.4 Legal Scope of American Net Neutrality Regulation

The adequacy of the legal foundation will be analyzed in order to determine whether these rules grant sufficient authority to the commission to act. The FCC relied upon section 706 for justifying the no-blocking, non-discrimination and neutral rules proposed in its 2010 Open Internet Order. The FCC explained that these rules were promoting the policies outlined in

27 Supra at 11 p. 9-10.
section 706 because they supported the ‘virtuous circle of innovation’.28 Yet, it must be noted that this virtuous circle can turn both ways: Many innovators may be better enabled or even require net neutrality; and neutrality may foreclose some forms of innovation. Thus, whether or not Net Neutrality better promotes innovation appears to be an empirical question.29

In any case, The D.C circuit held in Verizon v FCC its support for this expansive theory regarding FCC general authority to regulate broadband internet access service, explaining that edge providers innovation leads to the expansion and improvement of broadband infrastructure. The D.C circuit further determined that section 706(a) constitutes a reasonable grant of regulatory authority. Indeed, the court held that both section 706(a) and 706(b) gave FCC actual legislative authority to regulate companies toward promoting the development of advanced technologies; namely ISP’s. However, federal statutes, FCC precedent, federal case law and an array of other factors make clear that regulatory authority over broadband accruing states under this section is very low, if it exists at all, and subject to a number of limitations, including federal preemption.

Also, as stated by Daniel Deacon, the communication act section gives the FCC a potentially broad power to regulate services that fall outside their core jurisdiction over common carrier. He further argues that this empowerment gives the FCC malleable and potentially broad jurisdiction over Internet-based networks and services, as it does not seem to be any limit as to the reach of the section to those particular providers.30 Yet, as outlined above, FCC power under this section is not limitless considering the verdict given by the courts in the Verizon case, where it was held that their authority is constrained to using the regulatory tools identified in the law toward encouraging development of advanced technologies.

Regarding title II reclassification, it seems to fit under the definition of a telecommunication service as evidenced in the Brand X case, where the Supreme Court ruled that is at FCC’s discretion to decide as to what category of services best fits into telecommunication or information,31 offering them a much more robust source of authority. Yet, it can be argued

28 The Internet's openness enables a virtuous circle of innovation in which new uses of the network--including new content, applications, services, and devices--lead to increased end-user demand for broadband, which drives network improvements, which in turn lead to further innovative network uses.


31 Supra at 11. All the Supreme Court did in Brand X say that the FCC has the discretion to interpret the Communications Act, and — even though it's not the best interpretation — as long as it's not wacky, we have to uphold it.”
that even though the FCC may be allowed to change its decision as to how to classify internet broadband services, it cannot do it on a whim. Legal precedent requires the commission to acknowledge the change with substantial supportive arguments, as otherwise their decision will be rendered vulnerable when challenged in court. Thus, the future of these rules is still uncertain and its resilience will be tested in court.

Net neutrality proponents assume that the impact of common-carrier regulation will be minimal and that the U.S will maintain its technological lead forever, yet imposing regulations crafted for last century’s monopoly telephone service will potentially have a crippling and chilling effect on broadband investment. This can be evidenced by the study undertaken by Internet Innovation Alliance, where it was demonstrated that Europe has fallen behind America with regard to the number of available ISPS to consumers as a result of their overridden ‘whole-access’ regulatory regime, which was ironically designed to promote competition.  

In any case, it must be noted that this reclassification is akin to a middle group between light regulation under title I and heavy regulation under title II, as the commission has committed to refrain from enforcing the majority of the provisions contained within that are not relevant, as enshrined in section 10 of the Telecommunication Act. The commission forbore from thirty sections of title II; thereby limiting their regulatory control. However, it raised controversy as a result of the arguments given for and against forbearance of nearly every provision. Moreover, there is a reasonable concern that the ‘core’ provisions of title II; namely section 201 and 202 from which the commission did not refrain, confers upon the commission pervasive authority over ISP’s business practices.

Gus Hurwitiz argues that a lighter regulatory approach would keep further litigation from occurring, being in the public’s best interest. However, Weinberg, who watched the round table argued otherwise; contending that nobody should craft regulations to shun litigation altogether, as that is just simply not feasible. He supports title II as being an expedient manner to create strong net neutrality rules.

Mignon Clyburn who is one of the longest-tenured commissioners and advocate of drawing upon to title II, assert that neutrality does not only address theoretical harms. Indeed, he argues that factual evidence such as the blocking of applications in telephone devices or


Comcast throttling Netflix data, which significantly lowered the quality of their product in order to extract rent from them, gives compelling grounds for justifying such a reclassification.\(^{34}\) The new regulation is thus contrived toward precluding these types of practices to occur, by banning blocking, throttling and paid prioritization toward ensuring that ISP’S do not interfere with total welfare.

Hence, it may be argued that this grant of regulatory authority certainly renders the FCC with ample leeway toward devising appropriate measures that fosters the dynamics of the market and protect consumer’s rights.

Although the D.C Courts of Appeal upheld the FCC rules in 2016, major ISPs are still reluctant to be subject to title II, not desisting in their attempt to overturn the recent finding, as they are unwilling to comply with the onerous provisions contained therein. Hence, in the case United States Telecom Association v FCC and United states of America, the National Cable and Telecommunications Association together with AT&T and others brought proceedings in 2015 against the FCC guidelines,\(^{35}\) advocating that it contravened administrative law and that it violated the right of the claimant to determine what content they want to distribute and how quickly. They deem the decision to be capricious, arbitrary and unfair, as they consider it as an abuse of discretion by the FCC.\(^{36}\) Furthermore, they are claiming that the order will result into new fees on consumers and burdensome procedurals requirements for providers. Yet, in the majority opinion by the D.C circuit, written by Tatel and Srinivasen, it was stated that the argument was underpinned by today´s people perception of the internet.

However, William who was the lone dissenter argued that even though they have the authority to change the way they regulate broadband, FCC fell short of providing enough compelling reasons to adopt such a finding. Although it can be argued that effective monopoly is a reason for determining that an industry is to be reclassified as a public utility or a common carrier, today’s communication networks fail to meet this requirement.\(^{37}\) Also, the Federal Trade Commission (FTC) and Justice Department have each issued extensive reports concluding that there is no evidence of concentration of abuse or abuses of market power in the broadband market that could possibly justify FCC interference.


\(^{36}\) Supra at 26.

\(^{37}\) Supra at 35.
Ostensibly, it can be argued that the FCC has bumbled its oversight of some of the most important industries that it has sought to oversee, hindering their growth with short-sighted, over-reaching and confusing policies of political appeasement. The outrageous mistakes of the FCC in the realms of telephone, cable and broadcast make us wary about self-perpetuating factors that usually drive FCC intervention: lack of a clear congressional mandate, hunger of power and political susceptibility. Yet, the FCC argue that they believe they will be able to foster sufficient investment and achieve the policy goals, citing as an example the wireless industry, which has been under title II and with healthy levels of investment.

Nevertheless, in light of the discussion outlined above it seems not to be solid evidence justifying the qualification of these networks as a special infrastructure. Indeed, the FCC concluded that not only the broadband market is competitive, but that is moving in the direction of increased competition. Hence, considering the multiple wide-ranging implications recurrent changes in technology and demand will bring about and the feeble arguments vindicating these rules, it can be concluded that this regulation is redundant and unnecessary.

Moreover, it can be argued that the commission should not adopt comprehensive Open Internet rules; rather should promulgate clear general guidelines to provide notice to industry participants about the general classes of conduct of concern to the Commission. Any subsequent behavior contravening these guidelines will allow the Commission to take swift enforcement actions on a case-by-case basis under its 706 authority. This approach has been presented in the ‘‘commercially reasonable’’ standard proposed in the Commission’s 2014 NPRM(Noticed of proposed rulemaking). It is based on modern principles of administrative law and procedure, arguably being sufficient to protect consumers and problematic behavior, whilst it encourages the continued development of new pro-consumer business and business models in the internet. This seems as a more satisfactory approach, considering there is not any other available alternative that allows developing these sort of business models in the interest of preventing hypothetical (and often irrational) consumer harm. Also, its flexibility is essential to forestall manipulation, capture and arbitrage by firms that will use the commission’s rule to profit, possibility at the expense of consumers.

40 Supra at 29.
41 Supra at 39.
As contended by the National Cable and Telecommunication Association, an industry group challenging FCC’s rules decision, is unlikely that this will be the final pronouncement settling this decade-long debate over internet regulation.\footnote{Rt, ’Net neutrality rules upheld by US appeals court’ (RT, 14 June) <https://www.rt.com/usa/346676-fcc-net-neutrality-upheld/> accessed 2 October 2016.} The issue is thus still far from being settled, as opponents are still certain to be able to overturn the regulation.\footnote{Supra at 22.}

### 2.5 Concluding Remarks

Although it seems that the legislators both in Europe and America were conferred legislative authority to implement the recent net neutrality rules, their rigidity attracts criticism over potential conflicts of interest and deterrent effects. Thus, these rules are expected to be challenged in court given that major ISP’s are not contend with the reached outcome and they seem to have ample grounds for rebutting their adequacy. Indeed, increased regulation entails many potential threats, being particularly worrisome in the given market, as recurrent changes in technology, drastically changes its nature and functioning. Therefore, in light of the challenges that the market is currently facing, it seems that a less interventionist approach will better foster its dynamics.

### Chapter 3 challenging the Adequacy of Net Neutrality Rules: Light-Touch regulatory Approach

This chapter will start off by balancing competing arguments about net neutrality in order to determine as to whether or not the imposition of the recently implemented rules are based upon consistent factual evidence. The first section of the chapter will be devoted to analyzing the main arguments given by the proponents of Net Neutrality rules, whereas the second part will be contrasting these arguments by looking to dissenting stances and deeper assessing today’s functioning of the internet broadband access market.

Section 3.4 will put net neutrality into perspective by analyzing a relative novel contested practice known as zero-rating. In this section it will delve into its implications toward determining whether they adhere to net neutrality principles, whereupon it is balanced the main policy goals sought by policymakers in having a neutral net.
After considering these set of arguments, section 3.5 will suggest a light-touch regulatory approach as a more flexible and suitable alternative for governing the broadband market.

3.1 Arguments in Favor of Net Neutrality Regulation

Proponents of Net Neutrality contend that is paramount to have a sound framework governing the internet, as this phenomenon has overtaken the socio-economic day-to-day life of millions of people by its wide-ranging far-reaching effect. They see the ability of Network operators to exercise discretion among sources of content and applications as a threat to the democratic, open and accessible quality of internet, which they consider as a constitutive element of the internet and it multiple benefits.

As evidenced by the research from Google and others, delays of milliseconds have long-term negative impacts on revenue. For instance, if consumers are clicking in a seller’s webpage and the images are buffering slowly, there is a high chance that they will click away, consequently losing the sale. Thereby, the risks associated with conferring ISPs negotiating leeway with edge providers is deemed rather high, since it is likely that will lead to access fees that will eventually give rise to limited platform, in which users will be only be able to see the content previously chosen by the ISPs at their discretion. Accordingly, major content providers may have to pay the fee in return for preferential access, undermining competition by setting barriers to the market. Similarly, ISPs that are vertically integrated will be in a position in which they could decide to promote their own services, hindering competition from other edge providers offering a similar service. For instance, ISPs may forestall users from visiting certain websites, slow down the services of content providers such as Netflix or Hulu, or even redirect users from one website to another competing website. Also, there is a potential risk that they will be acting as guardian of public morality or community values.

For startups trying to market their services or products, the Internet levels the playing field, by allowing low-cost access to a large audience. Also, they often resort to Internet-based services, such as Skype and Vonage, to keep operating costs down. Thus, their functioning will be severely disrupted if they were to be subjected to these proposed fees, as their limited economic capacity will preclude them from affording the cost of the premium service, relegating them to the slower-lane, undermining their business prospects. However, this

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discriminatory pricing has not yet occurred, and indeed it appears difficult to explain why ISPs would want to impede the ongoing explosion of innovative content and applications that make their services valuable.\footnote{Subhajyoti Bandyopadhyay and others, 'Net Neutrality, Broadband Market Coverage and Innovation at the Edge' [2009] 1(1) Net Neutrality Article 5-20.}

Also, it must be noted that the incentives to invest by ISP’s under a discriminatory regime in the slow lane may be even lower, as the value of priority service diminishes according with the available capacity.\footnote{Gerald Faulhaber and Gary Madden, Regulation and the Performance for Communication and Information Netoworks (1 edn, Edward Elgar Publishing Limited 2012) 213.} Similarly, there is a potential risk that ISP’s will engage in quality degradation or sabotage. For instance, they may have an incentive to engage into these types of practices against the non-priority lane toward increasing the value of the premium one, whereupon they can get higher revenues from the content providers that opt to deliver prioritized service. This can be complemented by Choi and Kim theoretical analysis of net neutrality, as they showed that the discriminatory regime may not yield higher investment incentives in the long-run because less congestion may lead to content providers to have less willingness to pay for the prioritized delivery service. Cheng and Kramer gave complementary results both in the short and in the long run.\footnote{Edmond Baranes, ‘The interplay between network investment and content quality: implications to net neutrality on the internet’[2014] 28(1) Information Economics and Policy 57-69.}

There is even a possibility that without these policies, consumers will end up buying internet website bundles in the same way you buy channels on cable TV—a practice that already exists in some African countries without net neutrality provisions.\footnote{Ben Popper, 'The great unbundling: cable TV as we know it is dying: Internet upstarts are pushing incumbents to offer more a la carte options ' (The Verge, 22-April 2015) <http://www.theverge.com/2015/4/22/8466845/cable-tv-unbundling-verizon-espn-apple> accessed 20 October 2016.} This will affect SMB as well as democracy and freedom of speech. It will restrict access to today’s free available content and to a large spectrum of critical views about varied subjects to those who do not have the economic resources or inner-drive to seek information by purchasing access to the full bundle, limiting their understanding and development, arguably aligning internet users with the interests of large corporations. We will lose the freedom to choose as consumers and communicate as citizens by imposing access barriers upon content and services provided by smaller edge providers that cannot afford to be part of the premium bundle. Therefore, it can be argued that internet is an essential tool in today’s society, bolstering the need for ensuring a neutral net toward safeguarding fundamental human rights.\footnote{Agusti Carrillo-i-martinez and Agusti Peguera, Net Neutrality and other challenges for the future of the Internet (1 edn, Huygens Editorial 2011) 79-92.}
Yet, contrasting views argue that paid prioritization will not necessarily disrupt the market. Indeed, according to Bourreau, it will maximize total welfare by allowing this practice within a duopoly, as it will further network performance and lead to innovation by content providers. Similarly, in Economides and Hermalin’s model, it is stated that if the model is enhanced to account for the fact that ISPS regularly invest to increase the capacity of the network, allowing them to charge different prices, will lead to further investment. Furthermore, Sidak’s and Teece’s observations in the outlined market threats are important given that they seek to conclude how they may or may not align with reality. In fact, they argue that until empirical evidence is presented showing that ISP’s incentives to disrupt competition are prevailing, imposing this non-discrimination rule seem rather feeble and overstated, as they lack a strong legal basis.

In brief, balancing competing interests it can be argued that a free and open internet is the greatest technology of our time, and that its control should not be at the mercy of large corporations. Thus, stimulating ISP’s competition seems paramount for reducing their supremacy, as evidenced in other areas of law, where antitrust regulations were implemented for its furtherance. A neutral and open internet promotes the spread of ideas and protects freedom of speech, whilst helps to prevent abusive behavior by spurring on entrepreneurship and innovation, stressing the imperative need for adopting a suitable framework that reconcile the existing competing arguments toward safeguarding this precious asset.

The table below is worth noting, as it provides a summary of how different individuals and groups lined up for and against net neutrality. It does not include individuals and groups who took an in-between or third position.

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Table: Who Favored and Who Opposed Net Neutrality?

<table>
<thead>
<tr>
<th>In favor of net neutrality</th>
<th>Opposed to net neutrality</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Large, internet-base-companies:</strong></td>
<td><strong>Large, broadband service providers:</strong></td>
</tr>
<tr>
<td>Amazon.com, eBay, Google, Microsoft...</td>
<td>AT&amp;T, Bellsouth, Comcast, Verizon...</td>
</tr>
<tr>
<td><strong>Consumer/Civil Liberties:</strong></td>
<td><strong>Network Equipment providers:</strong></td>
</tr>
<tr>
<td>American Civil Liberties Union, Consumer Union, Free Press, Public Knowledge…</td>
<td>Alcatel, Cisco, Corning, Qualcomm 3M…</td>
</tr>
<tr>
<td><strong>Interest groups:</strong></td>
<td><strong>Interest groups:</strong></td>
</tr>
</tbody>
</table>

3.2 Actual Functioning of the Internet and Arguments against Net Neutrality

Although one of the main arguments by pro net neutrality toward passing stringent rules is based on thwarting the apparent attempt of ISPS of dividing the internet into fast and slow lanes, in order to ensure the future of the internet as an open and neutral space to the benefit of all, this argument seems to be relying on an old conceptualization of the functioning of the internet. As it can be illustrated by the graphic below, today’s net is not neutral and will arguably never be, as large content providers are already bypassing internet backbones due to the large amount of traffic they move on their own. Google was the first company to expand its operation to a network of private data centers all over the world, setting routers inside some of the ISPS in order to send their data more directly to internet users (peering).

51 Tooley(2016) with modifications by Jeffrey A. Ha.
Similarly, they also resort to a practice widely known as content delivery network (CDN) by which servers are set up inside the ISPs. Thereby, content providers such as Netflix or Google running their CDNs are delivering their content faster and more efficiently, by minimizing their load in their backbone infrastructure.

Similarly, as published in 2014 by the Economist, Google has been reported to have implemented a technique to preload YouTube video clips on a user’s device before that user has pressed the play button, based on information it has about this user, increasing traffic whilst prioritizing their service.\(^{52}\) Therefore, these practices are another manner in which the network is voluntarily configured by content and application providers, being only an option to the successful minority.

The rationale behind Net neutrality rules is to prevent prioritization of services by requiring ISPs to connect users to all lawful content on the internet equally, without giving preferential treatment to certain sites or services toward avoiding discrimination. Yet, in light of the arguments outlined above, this regulation will arguably fall short of their expectations, as major edge providers are currently providing enhanced delivery services, being at odds with the classic principles of Network Neutrality. It can be argued that Network Neutrality are based on a mythical arcadia, as the end-to-end principle has been always been honored in the breach.\(^{53}\)

Also, it can be argued that these rules are not arguably a satisfying outcome for ISPs who are incurring all the investment, whilst edge providers are free-riding their service. They claim that exploiting demand is straining infrastructure and requiring very large network investment in response. Against this backdrop, major content providers such as Google or Facebook are arguably being the greatest beneficiary of the recently implemented regulatory framework, as they do not directly contribute for the further development of the internet, yet they reap the benefit of the infrastructure financed by ISPs.\(^{54}\) Hence, Consumer welfare is likely to be at stake, as investment by ISPS is arguably going to undergo a decline as a result of the overbearing effect of these regulations, given that it will be difficult to efficiently accommodate the relationship between revenue and capital investment.


It can be further argued that the unpredictable growth of demand and cyclical variations therein make it inevitable that there will be lags in investment, leading to moments in which congested networks threaten levels of services. Thus, it seems paramount that they are able to manage demand and its effect through traffic shaping toward ensuring a minimum service level for the majority of users.\textsuperscript{55}

Content providers are also prone to suffer an investment setback. Given that the line between investing in networks and content has blurred over time, neutrality rules will bring about new challenges and uncertainties. Bandwidth-intensive content providers today draw upon CDNs such as Akamai and Limelight that allow them to improve quality of service, and accordingly demand. Yet, these burdensome rules will potentially preclude them from resorting to better or more suitable mechanisms that will allow them to fully monetize their services, discouraging investment. In other words, restrictions that limit content providers to realize the full value of the investment, also curtail the willingness to invest.\textsuperscript{56}

Indeed, it does not seem reasonable or beneficial to forbid content providers from paying priority treatment for their content, as the alternative will be to charge consumers for faster internet if they want to get more bandwidth to avoid services as Netflix to halt. In reality, not all services are dependent on fast delivery, as consumers will not be concerned with slight milliseconds reduction in the speed of services such as emails or Facebook.\textsuperscript{57} This was further illustrated by Robert Atkinson, the president of the Information Technology Innovation foundation, who noted that services like Skype needs its bits to arrive at their destination in a tight, encouraging allowing paid prioritization.\textsuperscript{58} Thereby, these rules appears to be to the detriment of consumers, as they only way a consumer can ensure faster delivery of their priority content is to pay more for all their content.

Also, it can be argued that there are not enough compelling reasons to assert that non-neutral business models will threaten the development of the market. Indeed, as stated by Paul MacAvoy, the current trend to regulate is an overly cautious step driven by the inadequacy of the utility and common carrier models to deal with partially competitive markets, which is inevitable as a result of technological changes. Others, such as Harry Trebing or

\textsuperscript{55} Ibid
Edythe Miller have viewed this as an imposition of neo-classical economics, based on government control of industries and markets. Also, in light of the works done by authors such as Edwin Goddard and Horace Grace, it can be argued that this regulation and struggles may not be a result of changes in technologies, but a result of paternalistic state.

Furthermore, new technologies are fast-evolving challenging the adequacy of the legislation. For instance ‘networks cookies’ developed by Stanford University engineers will certainly make it redundant, as it profess to be able to allow internet users to request preferential delivery from any network or content provider, thus preserving open internet. In this way consumer welfare will be maximized, as they will have the choice to decide what traffic should get favored delivery, whereas being consistent with the policy goal of ensuring that consumers have equal access to all content. As stated by the associated Stanford professor Sachi Katti, treating all traffic equally is not necessarily the best way to protect users. Indeed, they claim that the best way to ensure that ISPs do not make decisions that conflict with the interest of users is to allow users to configure their own traffic.\textsuperscript{59}

According to Mark Cooper, it can be argued that the key issue is having a resilient and robust strategy. Although drafting a regulatory framework that changes according to the public’s use of the internet as he proposed could be regarded as a more suitable solution because of its flexibility, this seems unlikely to occur, given the number of blanket prohibitions recently issued.\textsuperscript{60} Therefore, in light of the discussion above, a light-touch approach is proposed as an arguably more efficient way of regulating the market; as it creates the conditions under which cross-sector partnerships can thrive instead of focusing on preserving a narrow set of market conditions that will potentially deter any potential collaboration.

The dynamic of the market leads to an increasing interconnected ecosystem, fundamentally changing the nature of competition and innovation, as evidenced by the rise of Smartphone and its inherent multi-sided features. Considering this dynamic is the result of the conditions created and fostered by the previous minimalistic approach, I am wary as to the implications of regulating the Broadband Internet Access market under the net neutrality rules recently implemented both in Europe and America.\textsuperscript{61}


\textsuperscript{60} Suprat at 10.

\textsuperscript{61} Supra at 4
3.3 Controversy with *Ex-ante* Regulation

*Ex ante* rules establish a regulatory framework for anticipating and resolving actual disputes and problems. Typically, national legislation provides the law providing the basic structure under which the NRA creates policy, rules and regulations. The rationale for justifying this regulatory approach lies in the determination that an unfettered market would fail to achieve certain goals.  

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Yet, *ex-ante* regulation entails a wide-ranging spectrum of concerns. For instance, the capture theory argues that sector-regulation can lead to abuse by certain actors since they may seek to favor their interest. Government sometimes holds a share in an incumbent undertaking, putting their interest to be at stake when pre-emptive regulations are implemented. Similarly, incumbent companies will strive to hamper the entrance of efficient competitors in the market in order to maintain their market share. Depending on the country, they may find themselves in a position which allows them to influence the independent regulators. Additionally, it can be argued that sector regulations are just transitory measures that complement competition European law, whilst markets are being liberalized, due to its greater flexibility and *ex-ante* effect. This transitory trend of sector regulations has been repeatedly stressed by the Parliament, commission and council, as it function and scope is aimed toward regulating specific markets, in which competition seem implausible to be achieved by *ex-post* legislation.

As asserted by Mario Monti, regulation remains to be the exception rather than the norm, as evidenced by the progressive reduction in the number of directives in the telecommunication market throughout the years. Thus, according to this line of though, sector regulations are deemed to phase out as competition evolves, as at this instance competition law will be sufficient to control the market, as arguably broadband internet access market is not different with other sectors where primary legislation suffices.\(^63\)

In contrast, it can be argued that sector-specific regulation are expected to be an indispensable tool within the market as a result of its greater expertise and adequacy when dealing with the controversies that this fast-evolving phenomenon will potentially bring about, as it takes a broader approach which encompasses miscellaneous factors when regulating. Furthermore, the intrinsic complexity of broadband market challenges the idealized and envisioned application of the existing *ex-post* provisions. On the contrary, *ex-ante* regulation better adapts to these types of markets in which enduring dominant market players will potentially undermine competition by resorting to discriminatory practices. Thus, it can be argued that as it happened with the unexpected permanent duration the Federal Communication Commission in the US, in which sector-regulations seems to be primordial after 15 years, these net neutrality rules will most likely be an essential deal of the regulatory framework governing this area of law.\(^64\)

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\(^{63}\) Daniel Berhin and others,'Sector-specific regulation in European electronic communications – meant to disappear?' [2005] 7(1) 7-8.

However, *ex-post* regulatory response focus on evaluating specific instances of anticompetitive conduct, arguably being a better solution than *ex-ante* regulations that preempts a wide range of potentially welfare enhancing conducts, leading to the aforementioned type I error. Also, there is also not clear evidence of ISPS that have been vertically integrated and exercise monopoly power in any content market.\(^\text{65}\)

Additionally, NRAs cannot be certain that the rules they adopt will be viable and effective in light of technological changes as well as the convergence and robust changes in the market. Although they will attempt to fashion rules that are flexible and adapt to changed circumstances, they might not be able to keep up with technological and marketplace changes or they make generate too much ambiguity in rules ostensibly designed to promote flexibility.\(^\text{66}\)

The same seems to be applicable to America. Indeed, it appears that the risks of type II error are very low, \(^\text{67}\) and in any case are mitigated by the fact that they are already potentially actionable under antitrust law. Thus, advocate for less intrusive government oversight of broadband service market support either immediate or gradual replacement of expert agency oversight with adjudication and enforcement remedies applied if and when conflicts arise. Yet, advocates of retaining *ex-ante* regulation argue that despite technological innovations, the broadband market cannot self-regulate and prevent anticompetitive practices that would distort the marketplace and harm consumers. They further argue that if ISPs engage in an abusive practice, *ex-post* remedies would apply well after the onset of harm to competitors and the public. Moreover, in United States, some courts have reduced consumer’s opportunities to seek judicial *ex-post* remedies by limiting their rights to form classes of similarly harmed parties.\(^\text{68}\)

However, all in all, is difficult to see the policy justification for *ex-ante* regulation. One would have to regard ISPs so socially and culturally important as to require competition policy remedies to protect their interest, even though the relevant market does not appear to meet the competition policy tests for the application of those remedies.

\(^{65}\) Ibid.

\(^{66}\) Ibid.

\(^{67}\) Type II error represents situations where the legislators do not take regulatory intervenation when the intervenation would have increased social welfare.

\(^{68}\) Supra at 45.
3.4 Zero-Rating Implications

Zero-rating is the practice according to which data consumption of specific applications or services such as Facebook, Wikipedia or local job-sites is not counted against user’s data allowance. In some cases, this implies that the use of certain websites or service does not count against subscriber’s monthly data caps. In other arrangements, users can access the service even if they do not have a data plan. Despite zero rating’s apparent benefits, many advocates seek to ban the practice as a violation of net neutrality.

They regard zero-rating as an ingenious ruse for circumventing the current net neutrality framework, threatening to disrupt the functioning of the market because of its many implications. This practice allows ISPs to orientate the choices of the users, as it positively discriminate those services that are being zero-rated. Also, it can lead to a distortion of content, leading to the ‘walled garden effect’ where a user’s experience of the internet is limited to these prioritized services due to their low or no cost. Also, some commentators have publicly condemned this practice. For instance, Barbara Van Schevick argues that zero-rating is the next threat to innovation and free speech online. Susan Crawford regarded it as pernicious, dangerous and malignant, whereas advocacy group and many others in the popular press call it at best a ‘dangerous compromise’.

Yet, it can be argued that internet access is prohibitively expensive for over 4 billion people across the globe. Zero-rate mitigates this by allowing hundreds of people to use services like Facebook free basics, that allow access to sites like Facebook, Google, and Wikipedia alongside localized resources ranging from health advisory website to job-sites. Thus, this connectivity benefits arguably justify the apparent departure from net neutrality, as it allows people to communicate and improve their lives by using tools that would otherwise remain out of reach. However, opposing views argue that ‘Free basics’ is a broader and more exploitative form of zero-rating. Indeed, this was poorly received in India where it was banned by the media regulator TRAI, as they argued that it was a violation of Net Neutrality principles. Nevertheless, after industry efforts it was announced a new consultation about the legality of free data pricing. Also, Open Web advocates have contended that this is just another example of the walled garden online, as individuals experience the internet through Facebook-colored glasses.

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Additionally, it can be argued that net neutrality is not about achieving neutrality *per se*, but about advancing consumer choice and welfare, seeking innovation in the development of new services and guaranteeing participation in the public sphere. Zero-rating have real potential to attain these objectives, as it can *inter alia* spurs innovation by creating apps targeting poorer users, increase network accessibility or facilitate democratic participation, both by delivering users with the tools to engage in free speech online and increasing user’s educational and economic prospects so as to give them a greater voice. As a corollary, the apparent limitation of net neutrality toward achieving distributive justice encourages policymakers and scholars to find a balance between communication laws and net neutrality’s nondiscrimination principle.

In any case, this is a relatively novel practice and predictions are thus largely speculative, hindering the task of regulators that in lieu of indulging in speculations ought to engage in designing policy experiments that will generate the necessary information to test the competing hypothesis toward devising appropriate regulations.

Thus, FCC opted for a light-touch approach to zero-rating, which will be judged on a case-by-case basis. A similar outcome was reached in Europe, where the BEREC said that European legislators should assess such practices on the same basis, taking account for factors such as the market share of an ISP, effects on app choice, and the scale of the practice. Yet, these guidelines prohibit zero-rating in circumstances where the data cap is reached and all applications are blocked or slowed down.

### 3. 5 Promoting a Light-Touch Regulatory Approach as the Best Way to Deal with Net Neutrality

FCC Commissioner Ajit Pai, a Republican, believes that the government’s move to ensure an open Internet actually had the opposite effect, by deterring investment from small broadband providers struggling to comply with the regulations, and undermining innovation. Pai argues that the regulations will ultimately harm consumers by raising the cost of Internet service. He stresses that outside the tech bubble in 2001 and the Great recession of 2008, it is the first.

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72 Ibid.
time the investment in broadband has been reduced. ISPs argue that their incentives to innovate will be reduced with blanket net neutrality provisions that will hamper the monetization of their investment.\footnote{Loubet Marta, 'Unpacking US Net Neutrality and Competition Law' (Comp Law Blog, 22 Jun 2016) <http://www.complawblog.com/us-net-neutrality-comp-law-2016/>accessed 24 October 2016.} AT&T has further highlighted that this reclassification will mire the industry in years of uncertainty and litigation, thereby stalling the \textit{virtuous circle} of investment an innovation.\footnote{Kate Cox, 'Did Net Neutrality Kill Broadband Investment Like Comcast, AT&T, Verizon Said It Would?' (Consumerist, 9 February 2016)<https://consumerist.com/2016/02/09/did-net-neutrality-kill-broadband-investment-like-comcast-att-verizon-said-it-would/> accessed 28 October 2016.}

Yet, it can be argued that this is unlikely to occur in a competitive market, as if an ISP does not deliver good quality services at a competitive price, or there is blocking or elimination of relevant contents, customers will change to another ISPs, prompting further investment.

The FCT’s 2007 report underpins this view, as it states that absent coordination or collusion among providers is improbable to occur, provided consumers have competitive alternatives available. Furthermore, broadband content providers face disincentives to restrict access to content since that usually leads to a reduction in their number of customers. Available data shows that switching among broadband customers is substantial; indeed, it is akin to the rates observed in other telecommunication services. This can be evidenced by looking into the monthly churn of some providers such as Cablevisions or Verizon. For instance, in 2008 Verizon’s rate for video and internet access was 2.0 percent, whereas the churn among wireless telephone subscribers was 1.3 percent. Also, as it happened when 4G technology was deployed, competition is expected to become even more significant as new technologies are being deployed such as the looming 5G technology, since new broadband service providers will be entering the market in response and in anticipation of the large and ongoing increase in Internet demand that will be prompted by the increased throughput to subscribers.\footnote{Supra at 20.}

Given that the market is envisioned to drastically change in the upcoming years as a result of changes in technology and demand, net neutrality rules do not seem as the best manner to govern this area of law, as they would artificially restrict the ability of ISPs to keep pace with advances. They argue that the capital investment required to accommodate the rapid growth of the internet requires the commercial freedom to recover such investment. Also, other aforementioned arguments such as the lack of examples of abuses strengthen this view.\footnote{Pai, Ajit The story of the FCC’s net neutrality decision and why it won't stand up in Court Federal Communications Law Journal, [2015] 67(2), 173.}

Thus, other more flexible alternatives, as Setting a minimum quality standards or disclosure
commitments, in lieu of a blanket ban to the contested practices is suggested for foreclosing regulation, as they will reduce abuses and will not disrupt the development of efficient business models and products.

Additionally, the European Commission stated the significance of the types of problems arising in net neutrality is correlated to the degree of competition existing in the market. Indeed, considering the lack of widespread competitive problems of the type specified by the FCC or BEREC to date, it seems sufficient and arguably more appropriate to address these potential threats by general market competition, and if the industry, in turn, evolve into a state of overly centralized control, antitrust oversight will serve as an adequate regulation in a ‘case-by-case basis’, as explained by professor Christopher Yoo of Pennsylvania Law School.

Yet, opposing views argue that relying on exclusively antitrust mechanisms to solve any potential abuse would ignore the size of the internet and the spectrum of the players involved; antitrust may scrutinize the big players but it may not work to promote the small actors. Furthermore, net neutrality proponents argue that antitrust and competitions are not sufficient for internet regulation because of the traditional triggers of this regulation; such as price, usually are absent on the internet. Furthermore, they contend that this regulation would not adequately protect against the non-economic goals of net neutrality; such as the protection of free speech and political debate. However, experience shows that in order to preserve private-sector incentives to invest, especially in capital-intensive industry like telecom, policymakers should only intervene to correct a market failure. Even then, policymakers should consider the benefits and costs of new regulations on consumers (short-run) and on investment incentives (a long-run concern).

In any case, it may be concluded that ISP’s just want to be free to manage without any regulatory constraint, seeking a trade-off between expanding capacities to meet peak demand and shaping traffic to optimize service at current capacity. Indeed, provided is a sufficiently competitive market, this trade-off will be determined by the market and not by policy. ISP’s further argue that consumer will not tolerate being dictated to as which content or application provider will have priority on their internet access service. Moreover, they contend that

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79 Litan, Robert ; Singer, Hal J' Net Neutrality is Bad Broadband Regulation'[2010] 7(3) the Economists' Voice.
80 Supra at 24.
content or application providers enjoy substantial countervailing power to negotiate with
them, making this regulation unnecessary. It can be argued that net neutrality is a competition
and investment problem, not a regulatory issue.\textsuperscript{81} Therefore, in view of the dynamics of the
market and that the problem remains more theoretical than practical; a minimal regulation will
be endorsed as a better way to deal with the implications of the Broadband Internet access
service market.

3.5 Concluding Remarks
It can be argued that in light of the analysis presented above, these new rules amount to
unprecedented regulation and a government takeover of the internet, and is likely to bring
about even more threats than those that the market is currently facing. As stated by the U.S
Internet industry association, net neutrality can be regarded as a solution in a search
problem.\textsuperscript{82} Indeed, regulations based on speculative harms will potentially discourage
investment in the upgrades needed to accommodate ever-increasing demand for faster and
higher capacity broadband network; reducing consumer’s welfare.
Thus, it can be argued that light-touch regulation approach will be a more suitable approach
for governing this market.

Chapter 4 analyzing the Underlying Reasons for justifying this Increased Regulation

In this chapter are given two different set of arguments challenging the rationale for imposing
the current net neutrality rules. The first section critically analyze whether the increased
regulation that the online market has undergone during the last few years is grounded upon
consistent data. A number of arguments will be presented in order to determine whether
adequate legal and economic arguments have been adequately justified.

The second section will suggest that net neutrality regulation is just an ingenious charade for
crony capitalism. Thus, the aim of this chapter is to illustrate potential underlying reasons for
imposing these heavy-handed rules.

\textsuperscript{81} Andrea Renda, I own the pipes, you call the tune: The Net Neutrality Debate and Its Relevance in Europe (1st
\textsuperscript{82} Jeffrey A. Hart (2011) The Net Neutrality Debate in the
United States, Journal of Information Technology & Politics, 8:4, 418-443, DOI:
4.1 Is the Increased Regulation of the Broadband Internet Market Grounded upon Consistent Data?

It must be noted that the publicly available data sources used by the FCC showing the number of competitive alternatives is not consistent. For instance, the data used in 2014 in FCC chairman Tom Wheler’s 1776 speech about fixed broadband availability, was again used in 2015 broadband report, as illustrated in the diagram below. However, this data is in stark contrast with the data released by the FCC itself just three months before the speech, which showed much higher levels of availability when measured at the census tract level, as evidenced in figure 2. Yet, and probably more importantly, when the available graphics of the last few years are compared, it can be observed a clear trend showing growth in both broadband demand and competitive alternatives. Although Tom Wheler rebutted this by displaying data illustrating that the majority of Americans only have a choice to chose between two providers, giving rise to what is known in economy as a ‘duopoly’; a market in which competition leave a lot to be desired toward achieving a competitive market, this seem again to differ from the data provided by the FCC self.

Also, data illustrating broadband internet access between 2010 and 2015 showed at the beginning of the period that fewer than 30 per cent of households were in census tract, drastically changing to over 86 per cent with three or more providers only four years after. Similar data can be observed with regard to speed or other quality of services, raising a number of questions: (1) what was the economic basis for imposing more regulation of the internet; (2) to what extent the predictions about the development of the market are based upon a sound theory supported by evidence; and (3) how well these predictions performed in the intervening year in the previous regulation and as to whether the reason to impose the regulation is based on the same ‘virtuous circle’. 83

In light of the available data and the argument provided above, it seems that this decision to substantially increase regulation is unsound, considering the lack of both empirical and economic evidence underpinning the FCC’s framework and the market developments in recent years. In the justification given by the FCC it was argued that although some form of paid prioritization could be beneficial, the risk was too overwhelming to be allowed. Yet, this seems to be based on potential outcomes rather than harm that have actually occurred. They drew upon to only two examples from last decade, as most of the recent complaints did not

83 Supra at 21.
result in an enforcement action. (1) a 2005 enforcement order against an incumbent telephone company known as Madison River Communication that blocked voice over internet protocol (Voip) and (2) a 2008 order against Comcast suppressing its customers from using torrent.\(^{84}\)

The underlying rationale for implementing these rules is that the FCC concluded that broadband has not been deployed in a reasonable and timely manner; however, they acknowledged that large amounts of investments have been forthcoming. Thus, it does not seem to be reasonable this significant departure from the regulatory approach that was articulated in the 1996 Telecommunication Act, where it was stressed the importance of minimum governmental regulation; as according to the FCC, they sought to remove the regulatory uncertainty that in it may discourage investment and innovation. Professor Alfred Kahn has laid out the conditions under which it makes policy-sense to impose regulation on particular sectors of the economy. They are presented as follows; (1) the service (or industry) in question is large, both in its own right and as a supplier of essential inputs into other sectors of the economy and (2) competition does not work well.

Although chairman Wheeler’s concern mainly revolves around the number of available competitive choices providing high speed services, which became increasingly essential within the market, the observations seem to be just taking a narrow approach, as it only take into consideration static efficiency. He focuses on analyzing the situation at a given time, by looking at the number of available competitors for a particular level of broadband access. However, he glosses over dynamic efficiency that is extremely significant in industries in which infrastructure are the genuine driving force of economic growth, as it concerns optimal investment over time in capital formation, cost-reducing innovation and product innovation. Hence, a transient underperformance in static efficiency does not justify the imposition of the strongest net neutrality rules ever, considering that if the pattern characterizing this market remains, ISP’s will provide higher speed broadband at a more accessible price, downplaying any shortfall in static efficiency.

From the perspective of dynamic efficiency, there are two well-established competing economic frameworks that assess how society can achieve the optimal level of innovation. Professor Joseph Schumpeter, suggests that companies with market power will have greatest incentives to innovate because of their large relative size and dominant position in the market. In contrast, Laurate Kenneth Arrow suggests that companies engaged in competition will have the greater incentives to innovate because the increased business generated by innovation will

\(^{84}\) Ibis.
come mostly from sales that formerly would have gone to competitors. Hence, in both frameworks innovation is driven by the desire to appropriate the surplus associated with innovation.

Thus, it can be argued that in accordance with the historical growth pattern of the provisions of broadband to date, this new reclassification of broadband services will at best be unnecessary.

Europe seems to have even greater competition between telecoms, urging for the flexibility that allows bringing changes when they are needed.

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*These data reflect speeds of 3 Mbps up / 756 kbps down, which the FCC uses as the best proxy for 4 Mbps / 1 Mbps. See, e.g., FCC, Eighth Broadband Progress Report, FCC 12-90, §29 (2010).

Source: NTIA State Broadband Initiative (Dec. 2013); FCC

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85 Ibid
86 Supra at 16
4.2 To What Extent is Government Regulation a Form of Crony Capitalism?

Although a large deal of mid-range companies and customers are pushing for the market to be regulated by the Government toward being protected from telecoms giants, this seems as a capitalist arrangement that can lead to unexpected consequences. As asserted by Mark Cuban who is a longtime critic of the Net Neutrality push, all in all, the net has worked. Also, considering we are in a market in which technology has not become stagnant, with new advances being expected, this government regulation seem unnecessary, given that it entails enormous uncertainty and legal challenges.

It can be argued that advocates of Net Neutrality schemes to be imposed, are just being deluded in the idealized idea and somewhat naïve faith that selfless ‘mommy’ government will make everything cheaper than greedy big telecoms tycoons who are only concerned about realizing their investment. Yet, as Heritage Foundation President Jim DeMInt and Heritage Action President Mike Needham have explained, well-connected business use lobbying and
inside influence to benefit themselves; by having government to enact special subsidies, bailouts and complex regulations.

These practices of preferential treatment undermine competition on the merits companies that are lacking this insider status, harming the public.\textsuperscript{88} Hence, net neutrality regulation encourages cronyism. For instance, considering the inherently vague and malleable language used for determining whether an internet business practice is acceptable, large undertakings are likely to be favored by the FCC, by their privileged position at the Washington Game and their engagement in administration-approved activist or expenditures in politically correct schemes such as green projects or right campaign contributions. Furthermore, this fear is even more accentuated by the FCC dubious long-lasting behavior of shielding powerful incumbents from competition, as it maintained AT&T’s telecom monopoly for decades, by preventing other competing companies from providing video services.\textsuperscript{89}

Thus, it can be argued that government regulations are often written according to large corporation’s interests; in the given case content providers. Net neutrality is the product of crony capitalism designed to prevent small entrepreneurs from becoming real threats to large corporations. Indeed, if telecoms were forced to compete in a truly free market, major ISP’s will be replaced by options that give us better services at a lower price. Yet, some of these new options will depend on being able to take advantage of the very freedom to charge more for certain type of Internet traffic that net neutrality is seeking to prevent. Therefore, it seems paramount to eliminate regulations that act as a barrier to entering the market toward promoting increased competition.

On the global front, a decision by the U.S to embrace economic and political control of the internet would legitimize the efforts of tyrants everywhere to impose far more restrictive forms of statist intervention.\textsuperscript{90} Thereon, it is likely that government will use its power to create crisis that can be exploited to accumulate more power.


Therefore, even though regulation of net neutrality could be justified for the furtherance of the internet broad market, the dubious drive upon which governments decide to regulate markets, make me skeptical as to whether the actions are taken toward maximizing total welfare or are part of a more elaborated ulterior plan aimed at vesting major companies and government self with a greater control of this valuable market.

Chapter 5 what is the Future of the Broadband Internet Access Market

This chapter first seeks to anticipate as to whether the internet regulation is prone to undergo changes in America during the next few years, mainly considering the election of Donald Trump as president of the United States. Thereon, it will be analyzed the future of the European net neutrality rules, given their novelty and still uncertain applicability.

This last section of the chapter will be devoted to elaborating a cost-effective allocation of resources, seeking to further investment in the broadband internet market. After analyzing the main issues concerning Net Neutrality, I concluded that this dynamic phenomenon is based on legal and economic terms, making me aware as to the need of reconciling both fields toward achieving a thriving market.

This proposal suggests an alternative approach as to the understanding of allocation of infrastructures costs, yet it is not intended to present a comprehensive economic theory; rather it seeks to find a trade-off among all competing interests toward maximizing total welfare.

5.1 The Future of Net Neutrality Rules

On January 20th 2017, Donald trump will be sworn in as president of the United States, leading to uncertainty as to the future prospects of the rules implemented by the FCC in 2015. In 2014 he described the concept as a ‘top down power grab ‘that will target to the conservative media, regarding it as akin to the Fairness Doctrine. Although these declarations could be considered as simply Twitter bluster, it seems unlikely he will drift away from his stance of fighting against industry regulation.

Trump´s fellow republicans in congress have also heavily criticized the rules. In 2014, Ted Cruz defined Net Neutrality as ‘Obamacare for the internet’ and ‘the biggest threat for the

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91 It refers to the FCC rule eliminated in 1987 that required broadcasters to present contrasting views on topics of public interest.
internet”, contending that it will stymie private sector innovation. The republican Marco Rubio claims that the regulation is illogical, as creating faster lanes will benefit consumers by allowing highly tracked sites to accommodate their visitors. He also stresses that this reclassification as a public utility is not adequate, as it will confer great power upon an unelected, unaccountable board. Thereby, he argues that it will lead to a potential manipulation from all the lobbyist, lawyers and crony capitalist with a vested interest in the internet.\textsuperscript{92}

Indeed, who is the president’s party is crucial to the future of the internet. As asserted by Ammori, three out of the five FCC commissioners as well as the solicitor general who would stand or not for the regulation in front of the courts are appointed by them. Given that net neutrality rules were passed by a 3-2 vote, having a republican government will be a determining factor when deciding how the internet is to be regulated, and considering the public statements presented but its members, it seems likely that it will lead to a rollback of the recently implemented regulations.\textsuperscript{93}

It must be noted that US net neutrality are now US policies and even though they cannot be dismantled that easily at the whim of an authoritarian president, he could render them toothless if he simply stop enforcing them, thereby allowing large telephone and cable companies to expand controversial practices as zero rating toward circumventing the rules.

However, it is still early to anticipate the actions that the republicans will be taking regarding the current legal framework governing the internet broadband market, yet it is raising a strain among the different market players by their latter aforementioned stance. Thus, key times are coming, as this set of affairs will test whether the legislation is sufficiently solid to overcome the inevitable backlash inspired by the new government. Also, in all likelihood the next Supreme Court justice will have a political perspective similar to the appointing president; and this could make a significant difference on the outcome of the aforementioned appeal to the FCC rules, rendering the future of Net Neutrality even more uncertain.\textsuperscript{94}

Regarding European Net Neutrality, its future is still difficult to predict considering its novelty and the uncertainty surrounding the guidelines issued by the BEREC, as it is not clear


\textsuperscript{94} Supra at 16.
as to whether they will effectively close potential loopholes in the law. Also, lobby by the affected parties will challenge the resilience of these set of rules, as evidenced by the veiled threats of a consortium which includes BT, Nokia, Vodafone and many others that co-signed a manifesto whereby they warned that the deployment of high speed 5G could be delayed as a result of the recently implemented guidelines. They highlighted the dangers that restrictive net neutrality rules will *inter alia* play upon 5G technologies and business, considering they create uncertainty as to return of investments.\(^\text{95}\)

Finally, a few remarks need to be pointed regarding traffic management measures. There is an imperative need to preserve the integrity and security of the network, services and end-users terminals. Although much of the policy debate has focused on the commercial aspects of net neutrality, the danger of surveillance is relevant in this context. In the wake of Edward Snowden disclosures, the relationship between governments and ISPs, and its cooperation to ensure cyber security and state security interest is at stake.\(^\text{96}\) In response to consumer’s loss of trust, alternatives such as ‘‘Shengen area routing’’ are being proposed in Europe as a better way to safeguard their rights, yet its viability is contested. However, if the government involved fail to keep online barriers between the continents low, the internet’s potential to be an engine of global economic growth will be constrained.

### 5.2 Proposal of a New Economic Approach.

The Mozilla proposal shed light as to today’s actual functioning of the internet market. It contended that the internet is two-folded, as there is whole-sale and retail market. The one formed by the ISP and the user is the so-called retail market, whereas the relation between the ISP and the content providers is the whole-sale market, coined as ‘‘remote delivery service’’. In two-side pricing, the ISP can charge a subscription fee to users and a termination fee to content providers for delivery of content.\(^\text{97}\)


\(^{96}\) Supra at 13.

This new conceptualization of the broadband services should be used as a benchmark toward devising a suitable approach for promoting the development of the broadband internet market. Innovation and investment in new technologies and infrastructures are regarded as paramount for this market to further evolve. Therefore, a system in which cost are allocated efficiently; rather than their cost being only born by ISPs and consumers is essential for keeping pace with this rapid-developing market. The economics of two-sided market are such that prohibiting ISPs from calibrating an optimal price structure by charging both sides of the market is likely to perpetuate additional economic harm without any countervailing effect.\textsuperscript{98}

Given that net neutrality can be thought about the requirement that the ISP provide the same service to all content providers and users, charging a fee only to users does not seem appropriate. Therefore, it seems a better outcome to have content providers and users “on board”. This is the preferred approach in this market, considering there is large network externalities and low marginal cost. Any situation which restricts participation either on the user side or on the content provider side will be inefficient, because of the decline in the size of network externalities.\textsuperscript{99}

Certainly, a switch from the net neutrality regime to the discriminatory regime would be beneficial in terms of investment, innovation and total welfare. Regarding investment, ISP’s will have an extra channel for extraction of revenues from content providers, whereas innovation of services will be also increased, as some congestion-sensitive CP’s that would be left out if subjected to net neutrality rules, will enter the market if priority lanes are established. Yet, considering the skepticism and general backlash surrounding this practice, the proposed alternative seeks to reconcile the interests of the different parties involved toward maximizing total welfare, and mitigate thus the fear stimuli to the inevitable development of new business models in the given capital-intensive market.\textsuperscript{100}

Assuming ISPS are regulated by net neutrality rules; thereby limiting unfair practices that limit access to the whole internet, an analogous system as to the called high-income taxes seen in some countries for collection of funds for public services come to the forefront. Access barriers to the markets, will certainly stifle competition, as start-ups and SMB will be deterred from using this platform because of their weak economy. However, this proposal suggests that content providers will be only required to pay a carrier lien when and if their revenue reaches a minimum threshold. This will arguably lead to unprecedented investment in infrastructure deployment.

\textsuperscript{98} Supra at 40.
\textsuperscript{99} Supra at 72.
\textsuperscript{100} Ibid.
In any case, this proposal will need appendixes or guidelines within the regulatory framework, specifying the basis upon which investment is conducted and as to how they take precedent. This will be the result of a market analysis, being a trade-off among all the different factors involved in the market. Therefore, this cost-efficient allocation will maximize total welfare, as they main risks potentially threatening to disrupt the market will continued to be diminished by being subject to regulation; yet the interplay between economics and law will be all-encompassing, stressing the fact that a joint effort among whole-market players to finance infrastructure, will eventually be to the benefit of all.

This approach will allow creating a fast lane for all content providers without any type of discrimination, given that ISPs will extract investment funds in a regular basis, exclusively to be used in improving infrastructure. Therefore, it seeks to balance the competing interest, toward furthering the development of the market. Consumers will benefit from an open net with enhanced services and at a lower subscription fee, whereas ISP’s and content providers will have higher revenues, tantamount to the increased demand that will follow. This proposal will be thus in line with “virtuous circle” theory repeatedly used by the FCC to ground their net neutrality rules. In addition, they will certainly have enough resources to expand their infrastructures to remote areas with very limited access, supporting the policy goals sought and, in turn, limiting dubious practices as zero-rating, which threatens to disrupt net neutrality.

However, as aforementioned it can be argued that regulating this fast-evolving market with robust wide-ranging rules is risky, as it is difficult to foresee how regulations will adapt to advances in technology that may potentially completely alter today’s functioning of the market. Thus, a proposal of this kind would have to be carefully developed as otherwise it may befall that this restructuring will unwittingly bring about unwanted consequences by its inherent interventionist feature. It is worth to notice that I do not aim to provide a comprehensive theory; rather I put forward an alternative perspective as to how to accommodate the interest of the different market players in a way that could potentially increases overall welfare. However, the economic implications of the given proposal are out of the scope this paper.
Chapter 6: Conclusion

The internet is today’s most important socio-economic tool and an important guarantee of human rights. It removes barriers and leads to an international integration of knowledge and services, leading to an increasingly global society. Thereby, its ubiquity, ease of access and cost to consumers are all of great concern to public policy and regulation. In particular, regulators and legislators have expressed concern that operators may be tempted to discriminate in favor of their own services or those of third party partners to the detriment of competitive offerings. Therefore, in the last century it has been an ongoing debate as to the best way to regulate it.

The analysis conducted throughout this paper aimed at examining the different implications associated with the recently implemented net neutrality rules. It has been presented a large number of wide-ranging arguments in favor and against the increased regulatory trend that the broadband internet access service market is currently undergoing. Although it could be argued that state intervention is needed to appease the challenges and threats that the market is facing by the overbearing power of ISPs, this seem to be based on feeble assumptions that lack appropriate evidence.

Indeed, the recently implemented heavy-handed regulations are at odds with the initial intent of regulatory bodies to keep enhanced services unfettered, when they sought to avoid unexpected consequences from disrupting the market. This resulted in a thriving light-tough regulatory approach that made the Internet to be the important socio-economic tool that is today. The reasons for justifying today’s increased regulation is thus difficult to be explained, given that they mainly stress the common fallacies surrounding this phenomenon, emphasizing the speculative negative implications that minimal regulation may bring about and often distorting facts and drawing upon populist remarks; simplifying the debate and encouraging lobby by the general public. Hence, advocates of net neutrality seem to believe that robust regulation is overriding, whereas it seems to be at best unnecessary, considering its many shortcomings and low benefits.

Therefore, understanding the underlying reasons for such an increased regulation is a vexed question, as even though maximizing welfare both by protecting consumer’s rights and internet inherent functionalities as an open and neutral space appears persuasive, it does not seem to be grounded in solid data nor actual harms. Arguments suggesting some sort of ulterior drive such as state control or crony capitalism make me wary as to what sort of stimulus triggered this dogmatic set of actions, as the myriad benefits derived of controlling the internet are far-reaching, yielding arguments for skepticism.
Thus, it can be concluded that in light of the threats that the market is actually facing, a light-touch regulatory approach will be more suitable, provided a minimum level of competition is achieved. They will have a less interventionist approach with regard to the development of new business models and any potential market failure or abuse would be dealt through *ex-post* regulations on a case-by-case basis. Also, given its flexibility, this approach better adapts to changed circumstances ensuing form advances in technology and demand, and arguably provides higher incentives to invest, something that can be regarded as essential in this particular capital-intensive dynamic market.

Ultimately, after analyzing the given arguments and assessing its main implications it can be argued that net neutrality is a legal and economics based phenomenon and that their symbiotic relationship is paramount toward devising a solution that further foster the market and maximize welfare. Thereby, its multiple wide-ranging benefits could be maximized if all market players involved were willing to seek a more efficient allocation of resources that, in turn, will be beneficial to all parties. Cooperating to strengthening the ‘virtuous circle’ through the proposed high-income approach rather than battling and indulging in costly lobby and litigation toward safeguarding their own interests appears as a catalyst to ensure the future of this precious asset.
Bibliography:

Cases:


Verizon v FCC 740 F.3d 623 (D.C. Cir. 2014); 11-1355 (2014)

Book and Journals:


Faris R and others, 'The Berkman Center for Internet & Society at Harvard University' [2015] 1(1) Score another One for the Internet? The Role of the Networked Public Sphere in the US Net Neutrality Policy Debate 3.


Robert L; Singer, Hal J’ Net Neutrality is Bad Broadband Regulation’[2010] 7(3) the Economists' Voice.

Tooley(2016) with modifications by Jeffrey A. Ha.


**Websites:**

Catherine Stupp, 'Europe will have stronger net neutrality rules than the US, regulators say' (Euractiv, 8 June 2016) https://www.euractiv.com/section/innovation-industry/news/europe-will-have-stronger-net-neutrality-rules-than-the-us-regulators-say/.


