

CIS Counter- Comments to TRAI Consultation on Differential Pricing^I



Democratic Potential of the Internet

We wish to thank you for this opportunity to study the many submissions. The Internet is truly revolutionary in the ways that it allows citizens to interact with the government, indeed by making a consultation like this possible where people from across India, and indeed the world, can participate in a policy consultation and help the government with the inputs necessary to take an informed decision on the issue.

TRAI and the government should keep this in mind, and not take any action that may harm the Internet as an open platform that empowers all its users, and which enables a number of important rights such as the right to freedom of expression, the freedom of opinion, the freedom of association, and the like.

In particular, TRAI and the government should keep the weakest sections of our population in mind while coming up with appropriate regulations, and ensure that their rights to freedom of expression, opinion, association, etc., are not harmed by regulations.²

To summarize the core tenets of stand from our previous submission:

- I. The main focus of the regulator should be that of ensuring universal and affordable access to the Internet, ensuring effective competition in both wired and wireless Internet access through a wide variety of measures — some of which we have tackled in our submission, and empowering customers. Most of the harms associated with violations Net neutrality stem from lack of effective competition.

¹ Kritika Vohra, 5th year law student at NUJS, prepared the appendices submitted alongside this counter-comment.

² As Layton & Elaluf-Calderwood, *infra*, point out, “There is no doubt that zero rating offers an opportunity for poor people to access the Internet, become politically aware, and hold leaders more accountable. Such empowerment could be destabilizing for the status quo.” Though, I would qualify that by adding that some forms of zero-rating offer such opportunities, and not all.

2. ISPs may not engage in negative discrimination against any particular content, service, or application.³
3. ISPs may generally not engage in positive discrimination, with limited exceptions intended to ensure that the ISP's business interests do not harm competition, innovation at the Internet service layer including non-commercial innovations, consumer protections and user choice, or affordable access.
4. Net neutrality should be seen as the principle that gatekeepers should not use their gatekeeping powers to unjustly discriminate between similarly situated persons, content or traffic.

Based on the above principles, we formulated a detailed set of rules that would lead to minimal costs of regulation, while being clear and reducing uncertainty amongst ISPs and Internet services (OTTs). It would still require TRAI or DoT to set up a mechanism to hear complaints relating to the violations of those rules.

Evaluating the Submissions

We have gone through many of the submissions that have been sent to TRAI. First, there is little agreement amongst the submissions that TRAI has received as to the harms or negative effects of differential pricing of Internet traffic on the basis of content, service, or application. There are those that argue for an absolute ban on all such differential pricing via Net neutrality regulations: the Save the Internet coalition, the Lok Sabha MP Tathagata Satpathy, SFLC.in, Vishal Misra of Columbia University, the Centre for Communications Governance at the National Law University Delhi, CUTS, Centre for Media Studies, and others.

There are others who believe that some but not all differential pricing need to be banned, and that effective Net neutrality regulations and monitoring by the telecom regulator is necessary. The submission by the Rajya Sabha MP Rajeev Chandrasekhar, the Centre for Democracy and Technology, the Law & Technology Society at NLS Bangalore, Arturo Carrillo of George Washington University, Mahesh Uppal, R Street Institute, Progressive Policy Institute, ACT Fibernet, and others roughly advocate for such a position.

Then there are those who believe that there is no evidence of the harms of differential pricing, that over-regulation killing innovation and competition is a greater harm than under-regulation, or wish for competition law and policy to take care of the potential harms as they arise, rather than a specific non-discrimination regulation. Christopher Yoo of the University of Pennsylvania, NERA, Roslyn Layton of the Center for Communication, Media and Information Technologies at Aalborg University — who with Silvia Monica Elaluf-Calderwood of the London School of Economics has studied zero-rating schemes in multiple countries and

³ This wouldn't apply to some forms of what may be regarded 'reasonable network management' (e.g., an ISP guarding against a denial-of-service attack).

submitted that there is little evidence of harm so far, Broadband Forum of India, Reliance, and others.

Why TRAI Should Not Forbear from Regulating Price Discrimination

Of these, we most closely align ourselves with the middle position, and would like to highlight the submission made by the Centre for Democracy and Technology, since we share their articulation of the potential harms of differential pricing and service-specific zero-rating, and the ways that those harms could be reduced and access and user choice increased.

If ISPs are allowed to engage in price discrimination without charging the content providers, there are some real risks:

- They might make it cheaper to access content from a sister concern, or a service in which they have purchased shares, thus giving that content or service an undue advantage.
- They might enter into exclusive deals, or mutual cross-subsidies with an Internet service (OTT).

If ISPs are free to charge content providers as they wish, there are three sets of concerns:

- They might end up charging content providers for *access* to their customer base, and this would be harmful.⁴
- They might enter into agreements that prefer one content provider over its competitors, or even preferring a service that the ISP or its sister concern is offering.
- They might see the content provider side of the double-sided market as more valuable, and thus losing part of their incentive to focus on the bottom of the pyramid. If the bottom of the pyramid is not part of the target audience of the content providers with whom they have cut deals, this becomes an even more real threat.

We believe that leaving it completely up to case-by-case analysis, as is the situation in the U.S. (as part of the ‘general conduct’ provisions) and as has been proposed by Facebook in its submission, would increase regulatory costs and is thus inadvisable.

⁴ Papers by Economides & Tåg and by Lee & Wu both point to the economic justification for why allowing eyeball ISPs to charge content providers (as opposed to networks that deliver content, like CDNs, etc.) for access to their customers will be harmful, even in situations with some amount of competition (Economides & Tag consider both a monopolistic as well as a duopolistic situation). Nicholas Economides & Joacim Tåg, *Network Neutrality on the Internet: A Two-Sided Market Analysis*, 24 *Info. Econ. & Policy* 91 (2012), <http://www.stern.nyu.edu/networks/Economides.Tag.Net.Neutrality.pdf> & Robin S. Lee & Tim Wu, *Subsidizing Creativity through Network Design: Zero-Pricing and Net Neutrality*, 23 *J. Econ. Perspectives* 61 (2009), <http://pubs.aeaweb.org/doi/pdfplus/10.1257/jep.23.3.61>

We believe that *ex-ante* regulation to create a level-playing field (with rules relating to non-exclusion, non-discrimination, standardized pricing, and transparency) and creating bright lines would be more helpful in reducing regulatory uncertainty than relying solely on *ex-post* case-by-case analysis.

Further, because the harms that Net neutrality violations cause aren't only related to competition between ISPs and competition between content providers — they include non-commercial innovations that the Internet makes possible, as we have previously submitted — it would be unwise for the TRAI or the DoT to leave the issue up to the Competition Commission of India alone.

We believe that the rules that we have proposed in our submission effectively take care of all of the above concerns with minimal distortion of the market and low regulatory costs.

Other Issues to Consider

Metered Connections Are Inherently Discriminatory Between Applications

Applications and services are not neutral to pricing model. Low data caps / FUPs, or per-MB metering, would naturally tend to lead to lower consumption of video since video content is far more data intensive than text or audio content. Video content is more accessible for illiterate persons. Further, software security updates, which are crucial for a secure Digital India, cost customers data units and that is one amongst reasons that customers don't always apply security updates.⁵

But conversely, having high data caps or unmetered connections often ends up harming the poor,⁶ and thus while some ISPs may wish to engage in unmetered connections, that is not a strategy that all ISPs would wish to take, especially if they are targeting the bottom of the pyramid. Thus there could potentially be a trade-off between price of connectivity and how discriminatory it is with respect to different applications (and thus, different services).

⁵ Danielle Kehl & Patrick Lucey, *Artificial Scarcity: How Data Caps Harm Consumers and Innovation* 10, <https://static.newamerica.org/attachments/3556-artificial-scarcity/DataCaps.Layout.Final.a7ef6b9029da4dd29324757e5710b903.pdf>

⁶ Roslyn Layton & Silvia Monica Elaluf-Calderwood, *Zero Rating: Do Hard Rules Protect or Harm Consumers and Competition? Evidence from Chile, Netherlands and Slovenia*, http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2587542, where they note: “While such offers have appeal, they necessarily mean low volume users, whether by choice or budget constraint, are forced to pay more for internet access. Meanwhile high volume users, those who want to stream movies or play video games, pay proportionately less for their service.”

Low Bandwidth Connections are Inherently Discriminatory Between Applications

Applications and services are not neutral to bandwidth constraints. A service like Netflix cannot reasonably work in the absence of broadband and with low data caps. That means a service like Netflix — regardless of the price they charge — has a potential audience of far less than 15 million in India, given the low rates of fixed line broadband connections with high data caps (and given that almost all broadband mobile connections have low data caps), despite the vastly higher number of Internet users in India.

So, there are forms of discrimination based on content, service, and application that are inherent in *all* Internet connections that are not high-speed and unmetered. If security updates, which sometimes consume hundreds of megabytes, are provided in an unmetered manner, would that harm consumers or competition? (It is also curious how a first-in-first-out queuing mechanism is thought of as ‘neutral’, even though at times of congestion it can be seen as being discriminatory against a low-latency dependent application like VoIP by giving it the same status as one that is not as dependent on low latency.)

This should also make it clear that **the aim of Net neutrality regulation should not be to prevent *all* discrimination, but *unjust* discrimination.**

Differential Pricing of Specialized Services

Most countries that we looked at either explicitly allow specialized services in their regulations / law, or implicitly allow it as such services are available in that jurisdiction (see Appendix 2). If even in countries with lesser levels of competition in the telecom market than India such exceptions are allowed, it makes little sense not to allow specialized services as an exception to the general rule of not allowing differential pricing. However, there must be additional conditions to ensure user choice, and to ensure that specialized services don’t harm the general Internet or that not all Internet services get reclassified as specialized services to escape the general rule.

Some Forms of Differential Pricing Don’t Obviously Harm Consumers or Competition

Whom would it harm if all licensed banking services were to be made available for free to end customers of ISPs, while the banks pay ISPs for such price discrimination? (See the submission by the Centre for Democracy and Technology, section 4.1.2 (pg. 15), for more details of research on this.)

And who would be harmed if the e-filing of RTIs is made available for free without charge by all ISPs?

Given this, it would be wrong to ban all instances of differential pricing without any exceptions, and without any regard to the harms they cause or may foreseeably cause.

Price Discrimination Between Classes of Subscribers

One form of price discrimination between classes of subscribers that may have an impact on Net neutrality is charging extra for either the ability to run servers as part of the terms of service, or the related technical practice of providing globally-reachable IP addresses (whether static IP addresses or not) only to enterprise-level connections and not on consumer-level connections. This practice interferes with the ability of people on consumer-level connections to use their connection unhindered for legal purposes without regard to content, application, or service, since they can't run any application that depends on being reachable from the Internet. This is often the result of the network deploying CGNAT instead of providing IPv6 addresses.

Arguably, in many instances the distinction between the classes is 'arbitrary', such as the inability to run many 'virtual help'/desktop sharing applications (based on protocols like VNC/RDP), peer-to-peer protocols, VoIP protocols, etc. — since in many cases they are unable to traverse the CGNAT, or would be prohibited by the terms of service — without those applications actually being 'enterprise'-level applications. So there is no rational nexus between the classes that some ISPs have created and the restrictions applied upon those classes.

Thus, TRAI may wish to investigate this as a potential violation of the 1999 TTO's provision on non-discrimination.

Differences Between Wired and Wireless Access in Regulation

Spectrum is naturally a scarce resource, though technological advances⁷ and more efficient management of spectrum make it less so. However, we have seen that fixed-line broadband has more or less stagnated for the past many years, while mobile access has increased. So the market distortionary power of fixed-line providers is far less than that of mobile providers. However, competition is far less in fixed-line Internet access services, while it is far higher in mobile Internet access. Switching costs in fixed-line Internet access services are also far higher than in mobile services. Given these differences, the regulation with regard to price discrimination might justifiably be different.

⁷ Cooper's Law of Spectral Efficiency states that the maximum number of voice conversations or equivalent data transactions that can be conducted in all of the useful radio spectrum over a given area doubles every 30 months: [https://en.wikipedia.org/w/index.php?title=Martin_Cooper_\(inventor\)&oldid=697996111#Cooper.27s.law](https://en.wikipedia.org/w/index.php?title=Martin_Cooper_(inventor)&oldid=697996111#Cooper.27s.law)

Zero-Rating is Not a Magic Pill for Increasing Internet Connectivity

It is important to keep in mind that even the submissions that support allowing price discrimination — such as those by Facebook — don't support the idea that zero-rated services are the only way, or even that they are necessary, to bring people online. 100 million new subscribers came online over the last year, most of whom did so without the aid of a zero-rating platform. Further, zero-rating platforms won't be of any use to people living in areas where Internet connectivity isn't available at all. It is about having a diversity of approaches and options on the market as long as those options don't end up harming consumers, competition, or innovation. In this regard, we would like to highlight the submission made by Roslyn Layton and the section titled "Preliminary Research on Free Basics" (pages 22-25).

Incorrect Information on Regulations Banning Zero-Rating

There are multiple submissions which provide incorrect information on the regulatory strictures on zero-rating around the world. In Appendix 1 we provide further details about the regulations on zero-rating around the world.

Lack of Publicly-Available Evidence on Harm and Benefits

One of the main conclusions at the 2015 Internet Governance Forum — where there were multiple sessions on Net neutrality and zero-rating, including a main session that was dedicated to this topic — was that there was a lack of good quality evidence about the effects of zero-rating — one of the forms of price discrimination — including the benefits and the harms. TRAI can require Facebook and Reliance to provide it the raw data behind their claim that a sizeable number of people have left Internet.org/Free Basics within the first 30 days of usage. Further, a useful set of research areas are proposed by the Centre for Democracy and Technology right at the end of their submission. It would be valuable to commission research on some of those.

But apart from this, TRAI must be willing to re-open the issue of price discrimination as more theoretical and empirical evidence emerges, whether to support greater regulation or to remove otiose regulation that is dampening market innovations.

REGULATORY INTERVENTIONS/INTERPRETATIONS: ZERO-RATING OF SERVICES

S. No.	Country	Rule/Guidelines/Legislation	Stand on Zero-Rating	Medium and Particular Instances	Classification
1.	Canada	S. 27(2), Telecommunications Act, 1993: “No Canadian carrier shall, in relation to the provision of a telecommunications service or the charging of a rate for it, unjustly discriminate or give an undue or unreasonable preference toward any person, including itself, or subject any person to an undue or unreasonable disadvantage.” ⁱ	Zero-rating of carriers’ own services prohibited.	Interpretation by Regulatory Authority (The Canadian Radio-television and Telecommunications Commission, in its decision against Bell Mobility and Videotron Ltd, held as illegal to charge relatively lower data usage rates and exempting from the of data caps services of the carriers. It held that doing so amounted to giving unjust preference to these services and simultaneously unduly disadvantaging other services due to the possible harms on future audiovisual content as well as possible harms relating to resultant network congestion, neither of which were disproven by the companies.) ⁱⁱ	Bell Mobility and Videotron Ltd.: <ul style="list-style-type: none"> • Deal based- favouring one’s own • Content type based • Source and Destination based. • Charged • ISP imposed • Non-transparent • Not available automatically across all ISPs
2.	Netherlands	Article 7.4a, Telecommunications Act, 2012:	Zero-rating violates net neutrality for	Interpretation by Dutch regulatory body	KPN: <ul style="list-style-type: none"> • Criteria based • Content type based

		<p>“1. Providers of public electronic communications networks via which Internet access services are delivered and providers of Internet access services shall not hinder or slow down applications or services on the Internet, unless and to the extent that the measure in question with which applications or services are being hindered or slowed down is necessary...</p> <p>3. Providers of Internet access services shall not make their charges for Internet access services dependent on the services and applications which are offered or used via said services.”</p> <p>In its statement to the Draft Regulation of the European Parliament and of the Council laying down measures concerning the European single market for electronic communications and to achieve a Connected Continent on 29.05.2015, Netherlands stated that</p>	<p>amounting to “blockade” of the non zero-rated content as well as charging based on content.</p>	<p>(In January 2015, the Dutch regulatory body, Authority for Consumers and Markets, fined KPN and Vodafone for discriminatory practices.</p> <p>KPN provided “Free Basic Internet” which excluded certain traffic like BitTorrent which had to be paid for. This was interpreted as “blockade”, which is part of “hindering or slowing down of service”.^{iv}</p> <p>Vodafone had launched a campaign that allowed customers with a Vodafone subscription three months access to the “HBO go” app for free. This app allowed users to watch programs broadcast by the HBO cable and satellite television network. This was held to be contrary to paragraph 3 of Article 7.4a. Moreover, a similar guidance was given to Vodafone with respect to Sizz music application, which had been Vodafone imposed, and data used for the said app would</p>	<ul style="list-style-type: none"> • Source and destination based • Zero priced • ISP imposed • Transparent • Not available automatically across all ISPs <p>Vodafone- HBO:</p> <ul style="list-style-type: none"> • Deal based • Content type based • Source and destination based • Zero priced • ISP offered • Non-transparent • Not available automatically across all ISPs
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		<p>“... effective net neutrality rules also require discriminatory pricing practices to be clearly prohibited... The lack of a clear ban on price discrimination has been a fundamental concern for the Netherlands throughout the negotiations. This fundamental concern is expressed by a vote against the Regulation”ⁱⁱⁱ</p>		<p>not be counted towards data caps of consumers).^v</p>	
3.	Chile	<p>The Neutrality Act (Law no. 20453:</p> <p>"They may not arbitrarily block, interfere, discriminate, hinder or restrict the right of any Internet user to use, send, receive or offer any content, application or legal service through Internet and any other activity or legal use made through the network. In this regard, they must offer each user an access service or Internet connectivity provider of Internet access, as appropriate, not arbitrarily distinguish content, applications or services based on the source or</p>	<p>Zero- rating of certain services prohibited as it amounts to prioritizing of these services and excluding other services.</p> <p>Wikipedia Zero has been permitted.</p>	<p>Interpretation by the Regulatory Body Subsecretaria de Telecomunicaciones on promotions titled “Free Social Network”.^{vii}</p> <p>Wikipedia Zero, however, has been permitted by the regulator and has been excluded from the order that has banned “Free Social Network”.^{viii}</p>	<p>“Free Social Network”:</p> <ul style="list-style-type: none"> • Criteria based • Content type based • Source and destination based • Zero priced • ISP imposed • Non-transparent • Not available automatically across all ISPs (assumed) <p>Wikipedia Zero (no regulation):</p> <ul style="list-style-type: none"> • Deal based • Content type based • Source and destination

		ownership thereof, having account of the different configurations of the Internet as the current contract with users ". ^{vi}			<ul style="list-style-type: none"> based • Zero priced • ISP imposed • Non-transparent • Not available automatically across all ISPs (assumed)
4.	Slovenia	<p>Electronic Communications Act:</p> <p>“Article 197 (supporting the interests of citizens) - The Agency shall support the interests of citizens, in particular by: 8. promoting the preservation of the open and neutral character of the internet.</p> <p>Article 198 (regulatory principles) In realising the objectives referred to in Article 194 to 197 of this Act, the Agency shall apply objective, transparent, non-discriminatory and proportionate regulatory principles by, inter alia: 3. protecting competition to the benefit of users,</p>	Zero-rating is banned.	<p>Interpretation in a decision by the Agency for Communication Networks and Services of the Republic of Slovenia (AKOS).</p> <p>(The decision held two mobile operators to be in violation of the net neutrality provisions in the legislation for zero-rating of services. The content included music streaming service Deezer in the case of Telekom Slovenije, and cloud storage service Hanger Mapa in the case of Si.mobil. The decisions cited prohibition of unequal treatment of internet traffic to companies that are offering zero-rated services under the legal provisions as the basis. The</p>	<p>Telekom Slovenije:</p> <ul style="list-style-type: none"> • Deal based • Content type based • Source and Destination based. • Zero priced • ISP imposed • Transparent/Non-transparent- not known • Not available automatically across all ISPs^{xii} <p>Si.mobil:</p> <ul style="list-style-type: none"> • Deal based • Content type based • Source and Destination based.

	<p>including promoting the preservation of the open and neutral character of the internet and, where necessary, promoting competition in the area of infrastructure;</p> <p>...</p> <p>Art. 203, Electronic Communications Act-</p> <p>(1).The Agency shall promote the preservation of the open and neutral character of the internet and the possibility of end-users making their own choices with regard to access, the dissemination of information or the use of applications and services.</p> <p>(3). Network operators and internet service providers shall make every effort to preserve the open and neutral character of the internet such that they do not hinder, withhold or slow down internet traffic at the level of individual services or applications, or take measures to degrade these services or applications, except in the event of...</p>		<p>decisions did not take into account the non-binding opinion of the Slovenian Competition Authority, who, based on the request for an opinion from the same complainant (The National Council for Electronic Communications), considered that per se prohibition of zero- rated services might be detrimental rather than beneficial for consumers and that the assessment of the legality of the mobile operators' offers should be based on the effects of provision of such services.^{xi)}</p>	<ul style="list-style-type: none"> • Zero priced • ISP imposed • Transparent/Non-transparent- not known • Not available automatically across all ISPs
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		<p>(5) Services provided by network operators and internet service providers may not be based on services or applications offered or used via internet access services.”^{ix}</p> <p>AKOS document dated 30.9.2015 states that zero-rating is prohibited in Slovenia, unless the court (wherein the position has been challenged) decides otherwise.^x</p>			
5.	Norway	<p>There is no legislation <i>per se</i>. However, Norway brought out its ‘Guidelines for Internet Neutrality’ which have enshrined various principles, one of which is "Internet users are entitled to an Internet connection that is free of discrimination with regard to type of application, service or content or based on sender or receiver address."^{xiii} These guidelines do not have formal legal status.</p>	<p>Zero-rating would violate the Guidelines.</p>	<p>Advisory opinion of a Senior Advisor at the Norwegian Communications Authority.</p> <p>(Zero-rating would be violative of the said Guidelines as “once you have used your quota, the traffic that is exempted will be allowed to continue, while all other traffic will be throttled or blocked. This is clearly a case of discrimination between different types of traffic.”^{xiv})</p>	
6.	Denmark	<p>Denmark established a net neutrality forum in May 2011 and a Code of Practice in September 2011, the formulation of which was</p>	<p>No clear position on zero-rating.</p>	<p>The practice of zero-rating, however, is widely in use.^{xvi} Partnerships between wireless providers and edge providers have</p>	

		attended by the National Regulatory Authority as an observer. ^{xv}		helped streaming music providers disrupt older music business models such as physical CD sales and iTunes. ^{xvii} Bundled content has become a significant plane of competition among wireless providers. ^{xviii} Each major wireless provider offers at least one data package that includes a music bundle—and each provider has bundled with a different content provider. ^{xix} In Denmark the assumption is that issues on net neutrality can primarily be addressed by market competition supported by transparency and the ability for end-users to easily switch providers. ^{xx}	
7.	Brazil	Art. 9 of LAW No. 12.965: “The party responsible for the transmission, switching or routing has the duty to process, on an isonomic basis, any data packages, regardless of content, origin and destination, service, terminal or application.” Article 10	Zero-rating would not fit within statutorily provided exemptions.	Opinion of Congressman Alessandro Molon. Although the Net Neutrality law in Brazil does not specifically comment on the practice of zero-rating, it was the opinion of Congressman Alessandro Molon Rapporteur at the FGV, in Rio de Janeiro, in his capacity as the rapporteur of the Civil Marco	Opera for TIM (no regulation): <ul style="list-style-type: none"> • Deal based • Content type agnostic • Source and Destination agnostic • Zero priced • ISP offered • Transparent/Non-transparent- not known • Not available

		<p>“The discrimination or degradation of traffic shall be regulated in accordance with the private attributions granted to the President by means of Item IV of art. 84 of the Federal Constitution, aimed at the full application of this Law, upon consultation with the Internet Steering Committee and the National Telecommunications Agency, and can only result from: I – technical requirements essential to the adequate provision of services and applications; and II – prioritization of emergency services.”^{xxi}</p>		<p>Internet, that the practice of zero-rating of certain services would not fit within the exemptions provided for in the law.^{xxii})</p> <p>However, certain instances of zero-rating exist, like:</p> <ul style="list-style-type: none"> • free internet for TIM subscribers through Opera for TIM users^{xxiii} • free WhatsApp, Facebook and Twitter for Claro Brasil users who opt to sign up for the Promoção Internet Turbinada^{xxiv} • free access to Twitter and Facebook for TIM users.^{xxv} • free Twitter for Oi users.^{xxvi} 	<p>automatically across all ISPs</p> <p>Claro Brasil (no regulation):</p> <ul style="list-style-type: none"> • Deal based • Content type based • Source and Destination based • Zero priced • ISP offered • Transparent/Non-transparent- not known • Not available automatically across all ISPs <p>Free Facebook and Twitter for Tim users and free Twitter for Oi users (no regulation):</p> <ul style="list-style-type: none"> • Deal based • Content type based • Source and Destination based • Zero priced • ISP offered • Transparent/Non-transparent- not known
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					<ul style="list-style-type: none"> • Not available automatically across all ISPs
8.	Finland	<p>Section 110 of the Information Society Code:</p> <p>“An Internet access service provider may not restrict a subscriber’s or user’s opportunity to use an Internet access service, except:</p> <ol style="list-style-type: none"> 1) in a way necessary for implementing the main features of Internet access service quality, data transfer rate variation or other services that are clearly and extensively defined in the communications service agreement; 2) on the basis of a decision issued by an authority or court; 3) for the purpose of information security or to remedy an interruption in a way provided in sections 243, 272 and 273 or in some other similar way provided in law; 4) for the purpose of meeting quality requirements referred to in sections 243 and 244. 	No clear position on zero-rating.	<p>Finland is free of zero-rating.^{xxviii}</p> <p>It has a competitive three player mobile market, with affordable data prices and practically unlimited volume.^{xxix}</p>	

		<p>The restrictions referred to in paragraphs 1 and 4 of subsection 1 above shall be implemented in a non-discriminatory manner and they may not:</p> <ol style="list-style-type: none"> 1) restrict the intended use of an Internet access service; 2) prevent or restrict a subscriber's or user's ability to use the applications and services they wish; 3) unreasonably slow down the Internet access service. An Internet access service provider must ensure in service marketing and by other means that the subscriber and user have access to adequate information about the essential effects that the restrictions referred to in subsection 1 above possibly have on the use of the service. <p>Ficora may issue further regulations on the assessment of restrictions and procedures and their use in safeguarding the availability and quality of an Internet access service.</p> <p>Ficora may issue a decision obliging the Internet access service provider to:</p> <ol style="list-style-type: none"> 1) undertake measures necessary to prevent the interruption referred to 			
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		<p>in subsection 2; or</p> <p>2) refrain from measures and restrictions that will cause an interruption referred to in subsection 2.</p> <p>When issuing regulations and decisions in accordance with subsections 4 and 5, Ficora shall take into account the general quality, prices and properties of Internet access services available to users.^{xxxvii}</p>			
9.	Peru	<p>Article 6 of the “Ley de promoción de la banda ancha y construcción de la red dorsal nacional de fibra óptica” (unofficial translation):</p> <p>“Freedom of use of applications or protocols Broadband</p> <p>The Internet access providers respect the neutrality of network which can not be arbitrarily block, interfere with, discriminate or restrict the right of any user use an application or protocol, regardless of their origin, destination, nature or property.</p> <p>The Supervisory Agency for Private Investment in Telecommunications - OSIPTEL</p>	No clear position on zero-rating.	<p>Several instances of zero-rating exist.^{xxxix}</p> <ul style="list-style-type: none"> • Olo offers contract plans with zero-rated access to Facebook, Twitter, Gmail, Hotmail and Wave.^{xxxix} • Movistar offers 4 months of zero-rated access to WhatsApp for new subscribers of contract plans like Superchip 29.90.^{xxxix} • Claro offers special plans for Blackberry devices, allowing pre-paid customers to choose plans with unlimited access to certain applications or classes of applications.^{xxxix} 	<p>Olo (no regulation):</p> <ul style="list-style-type: none"> • Deal based • Content type based • Source and Destination based. • Zero priced • ISP imposed • Transparent/Non-transparent- not known • Not available automatically across all ISPs <p>Movistar (no regulation):</p> <ul style="list-style-type: none"> • Deal based • Content type based

		determined behaviors that will not be considered arbitrary, on network neutrality ^{xxx}			<ul style="list-style-type: none"> • Source and Destination based. • Zero priced • ISP imposed • Transparent/Non-transparent- not known • Not available automatically across all ISPs <p>Claro (no regulation):</p> <ul style="list-style-type: none"> • Deal based • Content type based • Source and Destination based. • Zero priced • ISP imposed • Transparent/Non-transparent- not known • Not available automatically across all ISPs
10.	Japan	On network neutrality- Japan has chosen to use a “co-regulatory” approach to focus on congestion management with minimum standards for quality of service. ^{xxxv} “The Association for Consideration of Guidelines for Operational	No clear position on zero-rating.	No instances of zero-rating exist. ^{xxxviii}	

		Standards on Bandwidth Control, which is made up of four groups... ^{xxxvi} announced the “Guidelines for Operational Standards on Bandwidth Control” in May 2008 after which the Ministry of Internal Affairs and Communications approved bandwidth control based on these guidelines...The association announced revised versions of the above guidelines in June 2010 and then in March 2012 (the current version).” ^{xxxvii}			
11.	Estonia	In Estonia, net neutrality is not considered an issue at the moment. ^{xxxix} “The official position is that traffic management should be exceptional, that transparency alone is insufficient and that the open internet should be protected; additionally, a minimum Quality of Service for best-effort, global public Internet should be imposed.” ^{xl} However, net neutrality has not been legislated upon in specific. ^{xli}	No clear position on zero-rating.	No instances of zero-rating exist. ^{xlii}	
12.	Iceland	Iceland has passed a resolution guaranteeing the principle of net neutrality. ^{xliii}	No clear position on zero-rating.	No instances of zero-rating exist. ^{xliv}	
13.	Latvia	“There is neither a neutrality law in place in Latvia, nor specific	No clear position on zero-rating.	No instances of zero-rating exist. ^{xlvi}	

		initiatives envisaged in that field so far. No complaint has been received in relation to the openness of the Internet.” ^{xlv}			
14.	Lithuania	“No specific net neutrality provisions were introduced in the Lithuanian legal system, other than the ones reflecting the provisions of the reformed regulatory package.” ^{xlvii} Therefore, there exists no specific legislative provisions on zero-rating. ^{xlviii}	No clear position on zero-rating.	No instances of zero-rating exist. ^{xlix}	
15.	Malta	“No specific legal provisions on net neutrality are currently in place in Malta and no complaints in this matter have been brought to the authorities' attention.” ^l	No clear position on zero-rating.	No instances of zero-rating exist. ^{li}	

ⁱ Telecommunication Act, 1993, available at <http://laws-lois.justice.gc.ca/eng/acts/t-3.4/page-9.html>.

ⁱⁱ *Complaint against Bell Mobility Inc. and Quebecor Media Inc., Videotron Ltd. and Videotron G.P. alleging undue and unreasonable preference and disadvantage in regard to the billing practices for their mobile TV services Bell Mobile TV and illico.tv*, Broadcasting and Telecom Decision CRTC 2015-26, January 29, 2015, available at <http://www.crtc.gc.ca/eng/archive/2015/2015-26.htm>.

ⁱⁱⁱ Chris Marsden, *Slovenia and Netherlands formal objection to Council position on net neutrality/zero rating*, October 2, 2015, available at <http://chrismarsden.blogspot.in/2015/10/slovenia-and-netherlands-formal.html>.

^{iv} *Fine on KPN for violation of net neutrality rules*, Authority for Consumers and Markets, January 27, 2015, available at <https://www.acm.nl/en/publications/publication/14311/Fine-on-KPN-for-violation-of-net-neutrality-rules/>.

^v *Fine on Vodafone for violation of net neutrality rules*, Authority for Consumers and Markets, January 27, 2015, available at <https://www.acm.nl/en/publications/publication/14310/Fine-on-Vodafone-for-violation-of-net-neutrality-rules/>.

^{vi} Law No. 20453, available at <http://www.leychile.cl/Navegar?idNorma=1016570&buscar=NEUTRALIDAD+DE+RED>.

^{vii} *Ley de Neutralidad y Redes Sociales Gratis*, May 27, 2014, available at <http://www.subtel.gob.cl/ley-de-neutralidad-y-redes-sociales-gratis/> (for the original order in Spanish see http://www.subtel.gob.cl/transparencia/Perfiles/Transparencia20285/Normativas/Oficios/14oc_0040.pdf).

^{viii} *Chilean regulator welcomes Wikipedia Zero*, September 22, 2014, available at <http://blog.wikimedia.org/2014/09/22/chilean-regulator-welcomes-wikipedia-zero/>.

^{ix} Electronic Communications Act, available at <https://www.ip-rs.si/index.php?id=504>.

^x *Net Neutrality- Situation in Slovenia*, AKOS, September 30, 2015, available at <https://www.itu.int/en/ITU-D/Regional-Presence/Europe/Documents/Events/2015/09%20Regulatory%20Conference/Predstavitev%20NN%20in%20Slovenia%20Budva.pdf>.

^{xi} Commission Staff Working Document Implementation of the EU regulatory framework for electronic communication- 2015, June 23, 2015, 288, available at http://www.parlament.gv.at/PAKT/EU/XXV/EU/07/03/EU_70340/imfname_10560182.pdf.

^{xii} *Slovenian operators told to halt zero rating*, January 27, 2015, TeleGeography, available at <https://www.telegeography.com/products/commsupdate/articles/2015/01/27/slovenian-operators-told-to-halt-zero-rating/>.

^{xiii} Network neutrality- Guidelines for Internet neutrality, Version 1.0, February 24, 2009, available at http://www.legi-internet.ro/fileadmin/editor_folder/pdf/Guidelines_for_network_neutrality_-_Norway.pdf.

^{xiv} Frode Sørensen, *Net neutrality and charging models*, November 18, 2014, available at <http://eng.nkom.no/topical-issues/news/net-neutrality-and-charging-models>.

^{xv} Commission Staff Working Document, *Implementation of the EU regulatory framework for electronic communications- 2014*, available at http://ec.europa.eu/newsroom/dae/document.cfm?doc_id=6473.

^{xvi} *Guest blog: the real threat to the open Internet is zero-rated content*, Web Foundation, February 17, 2015, available at <http://webfoundation.org/2015/02/guest-blog-the-real-threat-to-the-open-internet-is-zero-rated-content/>.

^{xvii} Daniel Lyons, *Beyond Net Neutrality: International Examples Enabling Innovation and Consumer Choice in the Mobile Internet Ecosystem*, April, 2015, available at <http://lawdigitalcommons.bc.edu/cgi/viewcontent.cgi?article=1945&context=lsfp>.

^{xviii} *Id.*

^{xix} *Id.*

^{xx} *Net Neutrality in the EU- Country Factsheets*, Openforum Academy, (last updated in September, 2013, available at <http://www.openforumacademy.org/library/ofa-research/OFA%20Net%20Neutrality%20in%20the%20EU%20-%20Country%20Factsheets%2020130905.pdf>).

^{xxi} Law No. 12.965, available at <https://www.publicknowledge.org/assets/uploads/documents/APPROVED-MARCO-CIVIL-MAY-2014.pdf>.

^{xxii} Fernando Paiva, *Zero rating não se encaixa nas exceções à neutralidade do Marco Civil, diz Molon*, Mobile Time, June 8, 2015, available at <http://www.mobiletime.com.br/08/06/2015/marco-civil-zero-rating-nao-se-encaixa-nas-excecoes-a-neutralidade-do-marco-civil-diz-molon/413529/news.aspx>.

^{xxiii} Nora Perez Banquells, *Free internet for TIM subscribers*, Opera News, January 23, 2015 available at <http://blogs.opera.com/news/2015/01/tim-user-get-free-internet-day-operas-sponsored-web-pass/>.

^{xxiv} Pedro Ozores, *Claro Brasil launches plan with 'free' WhatsApp, Facebook and Twitter*, BNamericas, June 15, 2015, available at <http://www.bnamericas.com/en/news/telecommunications/claro-brasil-launches-plan-with-free-whatsapp-facebook-and-twitter>.

^{xxv} *Id.*

^{xxvi} *Id.*

^{xxvii} Information Society Code (917/2014), available at <https://www.finlex.fi/en/laki/kaannokset/2014/en20140917.pdf>.

^{xxviii} *Supra* note xvi, Web Foundation.

^{xxix} *Id.*

^{xxx} Ley de promoción de la banda ancha y construcción de la red dorsal nacional de fibra óptica, unofficial English translation available at https://translate.googleusercontent.com/translate_c?depth=1&hl=en&prev=search&rurl=translate.google.co.in&sl=es&u=https://www.osiptel.gob.pe/repositorioaps/data/1/1/1/par/ley-29904-promocion-banda-ancha-rdnfo/Ley-29904-Promocion-Banda-Ancha-RDNFO-osiptel.pdf&usg=ALkJrhiZQ3rhAEecSJoSq8HdrrYig8WFTA.

^{xxxi} Ademir Antonio Pereira Junior, *Report- network neutrality regimes established without a clear ban on all types of prioritization have experienced a proliferation of preferential treatments not based on "fast lanes*, available at <http://apps.fcc.gov/ecfs/document/view?id=60001031561>.

^{xxxii} Olo Internet Plans, available at <https://olo.com.pe/planes-y-servicios/planes-a-la-medida>.

^{xxxiii} Movistar Superchip 29.90, available at <http://www.movistar.com.pe/planes-superchip>.

^{xxxiv} Claro Blackberry packages, available at <https://translate.google.co.in/translate?hl=en&sl=es&u=http://www.claro.com.pe/wps/wcm/connect/pe/claro-2013-peru/pc/personas/movil/prepago/servicios-adicionales/paquetes-blackberry&prev=search>.

^{xxxv} Roslyn Layton, *Net neutrality, a Trojan horse for increased government control of the Internet*, TechPolicyDaily.com, July 14, 2014, available at <http://www.techpolicydaily.com/communications/net-neutrality-laws/>.

^{xxxvi} The Japan Internet Providers Association (JAIPA), which represents ISPs; the Telecommunications Carriers Association, which represents telephone companies; the Telecom Services Association, which represents a wide range of carriers in the ICT industry; and the Japan Cable Television Association).

^{xxxvii} InfoCom Research Inc., Executive Consultant, Kamino Arata, *The current state of American, European, and Japanese network neutrality debates and their differences*, available at http://www.icr.co.jp/reports/docs/2015_01_net-neutrality.pdf.

^{xxxviii} *EU28 & OECS mobile internet access competitiveness report Q4 2014*, November, 2014, available at http://www.dfmonitor.eu/insights/2014_nov_premium_q4_update/; *Discrimination and Neutrality on the Internet: the Zero Rating Case*, ItMedia Consulting, available at http://www.dimt.it/wp-content/uploads/2015/10/Zero-rating_vienna_review.pdf; *David Wins Against Goliath: CRTC Bolsters “Net Neutrality”, Limits “Zero-Rating” & Strengthens Local TV*, Mediamorphis (blog), January 29, 2015, available at <https://dwmw.wordpress.com/2015/01/29/david-wins-against-goliath-crtc-decisions-strengthen-network-neutrality-limit-zero-rating-strengthens-local-tv/>.

^{xxxix} 2014 Report on Implementation of the EU Regulatory framework for electronic communications, Estonia, available at http://ec.europa.eu/newsroom/dae/document.cfm?doc_id=6449.

^{xl} *Supra* note xx, Openforum Academy.

^{xli} *Id.*; OECD Table 2.9, OECD Communication Outlook 2013, available at <http://www.oecd.org/sti/broadband/2-9.pdf>.

^{xlii} *Supra* note xxxviii.

^{xliii} Freedom on the Net 2015, October, 2015, 12, available at https://freedomhouse.org/sites/default/files/FH_FOTN_2015Report.pdf.

^{xliv} *Supra* note xxxviii.

^{xliv} 2014 Report on Implementation of the EU Regulatory framework for electronic communications, Latvia, available at http://ec.europa.eu/newsroom/dae/document.cfm?doc_id=6457.

^{xlvi} *Supra* note xxxviii.

^{xlvii} 2014 Report on Implementation of the EU Regulatory framework for electronic communications, Lithuania, available at http://ec.europa.eu/newsroom/dae/document.cfm?doc_id=6458.

^{xlviii} *Supra* note xx, Openforum Academy.

^{xlix} *Supra* note xxxviii.

^l 2014 Report on Implementation of the EU Regulatory framework for electronic communications, Malta, *available at* http://ec.europa.eu/newsroom/dae/document.cfm?doc_id=6460.

^{li} *Supra* note xxxviii.

SPECIALIZED SERVICES

S.No	Country	Relevant provisions	Position on specialized services
1.	Canada	<p>S. 27(2), Telecommunications Act, 1993:</p> <p>“No Canadian carrier shall, in relation to the provision of a telecommunications service or the charging of a rate for it, unjustly discriminate or give an undue or unreasonable preference toward any person, including itself, or subject any person to an undue or unreasonable disadvantage.”ⁱ</p> <p>The CRTC, however, oversees traffic management practices of ISPs.ⁱⁱ</p>	<p>No clear position on specialized services found. However, services like telemedicineⁱⁱⁱ and IPTV^{iv} are available.</p>
2.	Netherlands	<p>(Unofficial English translation)</p> <p>Article 7.4a Telecommunications Act:</p> <p>1. Providers of public electronic communication networks which deliver internet access services and providers of internet access services do not hinder or slow down applications and services on the internet, unless and to the extent that the measure in question with which applications or services are being hindered or slowed down is necessary:</p> <p>a. to minimize the effects of congestion, whereby equal types of traffic should be treated equally;</p> <p>b. to preserve the integrity and security of the network and service of the provider in question or the terminal of the end user;</p> <p>c. to restrict the transmission to an end user of unsolicited communication as referred to in Article 11.7, first paragraph, provided that the end user has given its prior consent;</p> <p>d. to execute a legislative provision or court order.^v</p>	<p>Specialized services are allowed.</p>

		<p>The explanatory memorandum states:</p> <p>“The term “Internet” refers to the global, world wide network of endpoints with IP addresses assigned by the Internet Assigned Numbers Authority. It is not intended to prohibit the “reservation” of bandwidth for IP-based services which are offered through its own network, including IP-based television that is not offered via the Internet: these are no services or applications on the Internet. The term Internet should be interpreted broadly, however, to ensure that providers cannot circumvent the scope of this provision. The term “provider of an Internet access service” refers to the term as used in the appendix under Article 13.2a of the Telecommunications Act.</p> <p>It is clear that the term Internet access service should be interpreted broadly, to prevent circumvention of this provision. If access to websites, multiple services or applications, including apps, is offered, this should at any rate be considered an Internet access service. It is, therefore, at any rate not allowed to offer a service consisting of access to (certain) web pages, services or applications, where the use of certain applications or services are blocked or priced differently. This means that providers are allowed to offer separate services over the Internet, but may not offer packages to access a part of the Internet. Of course, providers may differentiate their subscriptions for internet access or in other ways, such as bandwidth and data limits.”^{vi}</p>	
3.	Chile	<p>The Neutrality Act (Law no. 20453:</p> <p>"They may not arbitrarily block, interfere, discriminate, hinder or restrict the right of any Internet user to use, send, receive or offer any content, application or legal service through Internet and any other activity or legal use made through the network. In this regard, they must offer each user an access service or Internet connectivity provider of Internet access, as appropriate, not arbitrarily distinguish content, applications or services based on the source or ownership thereof, having account of the different configurations of the Internet as the current contract with users.</p> <p>However, dealers and public telecommunications service providers access to the Internet may take the measures or actions necessary for traffic management and network management in the exclusive</p>	<p>No clear position on specialized services found. However, telemedicine^{viii} and IPTV^{ix} are available.</p>

		area of activity that has been licensed to them, provided that this is not designed to perform actions that affect or may affect free competition.” ^{vii}	
4.	Slovenia	<p>Electronic Communications Act:</p> <p>“Article 197 (supporting the interests of citizens) - The Agency shall support the interests of citizens, in particular by: 8. promoting the preservation of the open and neutral character of the internet.</p> <p>Article 198 (regulatory principles)</p> <p>In realising the objectives referred to in Article 194 to 197 of this Act, the Agency shall apply objective, transparent, non-discriminatory and proportionate regulatory principles by, inter alia: 3. protecting competition to the benefit of users, including promoting the preservation of the open and neutral character of the internet and, where necessary, promoting competition in the area of infrastructure;</p> <p>...</p> <p>Art. 203, Electronic Communications Act-</p> <p>(1).The Agency shall promote the preservation of the open and neutral character of the internet and the possibility of end-users making their own choices with regard to access, the dissemination of information or the use of applications and services.</p> <p>(3). Network operators and internet service providers shall make every effort to preserve the open and neutral character of the internet such that they do not hinder, withhold or slow down internet traffic at the level of individual services or applications, or take measures to degrade these services or applications, except in the event of...</p> <p>(5) Services provided by network operators and internet service providers may not be based on services or applications offered or used via internet access services.”^x</p>	No clear position on specialized services found. However, telemedicine ^{xi} and IPTV ^{xii} are available.
5.	Norway	Although the ‘Guidelines for Net Neutrality’ ^{xiii} , framed by the Norwegian Communications Authority (Nkom), make no explicit reference to ‘specialized services’, as the term was not a familiar concept at the time of framing of the guidelines ^{xiv} , a statement by Frode Sorensen (Senior Advisor at the	Specialized services are allowed.

		<p>Norwegian Post and Telecommunications Authority) on the Nkom website stated that “these guidelines implicitly discuss specialised services and state that "if the physical connection is <i>shared with other services</i>, it must be clear how the capacity is allocated between the Internet traffic and the other services".”^{xv}</p> <p>“In the Norwegian guidelines of 2009 operators were provided with an opening to launch and provide such services that do not need to adhere to Net Neutrality rules. However, in order to create this opening and at the same time protect Net Neutrality, specialized services must be (virtually or physically) separated from Internet Access Services (IAS) at the network layer and must not be provided at the expense of IAS.”^{xvi}</p>	
6.	Denmark	<p>Denmark has not seen any specific instances of net neutrality problems and adopts a self regulatory approach.^{xvii} It established a net neutrality forum in May 2011 and a Code of Practice in September, 2011, the formulation of which was attended by the National Regulatory Authority as an observer.^{xviii} In Denmark the assumption is that issues on net neutrality can primarily be addressed by market competition supported by transparency and the ability for end-users to easily switch providers.^{xix} The Telecommunications Act empowers The National IT and Telecom Agency to undertake new regulatory measures with respect to network neutrality if the industry does not ensure net neutrality itself.^{xx}</p> <p>However, instances of managed serviced exist. For instance, TDC, the largest provider of internet access and services in Denmark offers manages services like IPTV, streaming music, etc. besides ‘best effort’ Internet Services^{xxi}. Similarly, Teliasonera also offers managed services.^{xxii}</p>	No clear position on specialized services found. However, specialized services like telemedicine ^{xxiii} , amongst others ^{xxiv} , are available.
7.	Brazil	<p>Art. 5 of Law No. 12.965 defines ‘internet’ as follows: “the system consisting of the set of logical protocols, structured on a global scale for public and unrestricted use, in order to enable communication of data between terminals, through different networks”</p> <p>Provisions on net neutrality are as follows: Art. 9 of LAW No. 12.965:</p>	No clear position on specialized services found. However, services like telemedicine ^{xxvi} and IPTV ^{xxvii} are available.

		<p>“The party responsible for the transmission, switching or routing has the duty to process, on an isonomic basis, any data packages, regardless of content, origin and destination, service, terminal or application.”</p> <p>Article 10 “The discrimination or degradation of traffic shall be regulated in accordance with the private attributions granted to the President by means of Item IV of art. 84 of the Federal Constitution, aimed at the full application of this Law, upon consultation with the Internet Steering Committee and the National Telecommunications Agency, and can only result from: I – technical requirements essential to the adequate provision of services and applications; and II – prioritization of emergency services.”^{xxv}</p>	
8.	Finland	<p>Section 110 of the Information Society Code:</p> <p>“An Internet access service provider may not restrict a subscriber’s or user’s opportunity to use an Internet access service, except: 1) in a way necessary for implementing the main features of Internet access service quality, data transfer rate variation or other services that are clearly and extensively defined in the communications service agreement; 2) on the basis of a decision issued by an authority or court; 3) for the purpose of information security or to remedy an interruption in a way provided in sections 243, 272 and 273 or in some other similar way provided in law; 4) for the purpose of meeting quality requirements referred to in sections 243 and 244. The restrictions referred to in paragraphs 1 and 4 of subsection 1 above shall be implemented in a non-discriminatory manner and they may not: 1) restrict the intended use of an Internet access service; 2) prevent or restrict a subscriber’s or user’s ability to use the applications and services they wish; 3) unreasonably slow down the Internet access service. An Internet access service provider must ensure in service marketing and by other means that the subscriber and user have access to adequate</p>	<p>No clear position on specialized services found. However, services like telemedicine^{xxix} and IPTV^{xxx} are available.</p>

		<p>information about the essential effects that the restrictions referred to in subsection 1 above possibly have on the use of the service.</p> <p>Ficora may issue further regulations on the assessment of restrictions and procedures and their use in safeguarding the availability and quality of an Internet access service.</p> <p>Ficora may issue a decision obliging the Internet access service provider to:</p> <ol style="list-style-type: none"> 1) undertake measures necessary to prevent the interruption referred to in subsection 2; or 2) refrain from measures and restrictions that will cause an interruption referred to in subsection 2. <p>When issuing regulations and decisions in accordance with subsections 4 and 5, Ficora shall take into account the general quality, prices and properties of Internet access services available to users.”^{xxviii}</p>	
9.	UK	<p>“The UK employs a self-regulatory model, which is supervised by Ofcom. Ofcom published a regulatory statement in 2011 setting out its approach to net neutrality and providing guidance to internet service providers wherein it has stated:</p> <ol style="list-style-type: none"> (a) Transparency is key. Consumers should be made aware of any blocked services before subscribing to a service. (a) That there are benefits to both “best efforts” Internet access (web traffic conveyed on more or less equal terms) and the provision of managed services (prioritized traffic), and that they can co-exist. (b) Innovation is important for the development of new content and services and should Ofcom gather evidence that innovation is being stifled, then it may consider introducing a minimum quality of service. (c) Blocking of services is undesirable and Ofcom expects market forces to address this issue, but we will keep this position under review.”^{xxxi} 	Specialized services are allowed.
10.	Peru	<p>Article 6 of the “Ley de promoción de la banda ancha y construcción de la red dorsal nacional de fibra óptica” (unofficial translation):</p> <p>“Freedom of use of applications or protocols Broadband</p>	No clear position on specialized services found. However, services like

		<p>The Internet access providers respect the neutrality of network which can not be arbitrarily block, interfere with, discriminate or restrict the right of any user use an application or protocol, regardless of their origin, destination, nature or property.</p> <p>The- Supervisory Agency for Private Investment in Telecommunications - OSIPTEL determined behaviors that will not be considered arbitrary, on network neutrality”^{xxxii}</p>	<p>telemedicine^{xxxiii} and IPTV are available.^{xxxiv}</p> <p>Perusat also offers third-party managed services over broadband connections (VoIP).^{xxxv}</p>
11.	Japan	<p>On network neutrality- Japan has chosen to use a “co-regulatory” approach to focus on congestion management with minimum standards for quality of service.^{xxxvi} “The Association for Consideration of Guidelines for Operational Standards on Bandwidth Control, which is made up of four groups.^{xxxvii} announced the “Guidelines for Operational Standards on Bandwidth Control” in May 2008 after which the Ministry of Internal Affairs and Communications approved bandwidth control based on these guidelines...The association announced revised versions of the above guidelines in June 2010 and then in March 2012 (the current version).”^{xxxviii}</p>	<p>No clear position on specialized services found. However, services like telemedicine^{xxxix} and IPTV^{xl} are available.</p>
12.	France	<p>In October, 2010, ARCEP, the national regulatory authority, released 10 point principles for net neutrality. On specialized services, “ARCEP’s position has been that managed services would be permitted to be offered alongside open Internet access, “provided that the managed service does not degrade the quality of Internet access below a certain satisfactory level, and that vendors act in accordance with existing competition laws and sector-specific regulation” (Principle 4 of 2010).”^{xli}</p>	<p>Specialized services are allowed.</p>

- i Telecommunication Act, 1993, *available at* <http://laws-lois.justice.gc.ca/eng/acts/t-3.4/page-9.html>.
- ii Telecom Regulatory Policy CRTC 2009-657, *available at* <http://www.crtc.gc.ca/eng/archive/2009/2009-657.htm>.
- iii *Telemedicine on the rise across Canada*, Healthy Debate, June 25, 2015, *available at* <http://healthydebate.ca/2015/06/topic/telemedicine-across-canada>.
- iv VMedia, *available at* <http://www.vmedia.ca/tv/>.
- v *Translations of Key Dutch Internet Freedom Provisions*, Bits of Freedom, June 27, 2011, *available at* <https://www.bof.nl/2011/06/27/translations-of-key-dutch-internet-freedom-provisions/>.
- vi *Id.*
- vii Law No. 20453, *available at* <http://www.leychile.cl/Navegar?idNorma=1016570&buscar=NEUTRALIDAD+DE+RED>.
- viii *GlobalMed Telemedicine Solutions in Chile*, 2015, *available at* <http://www.globalmed.com/press-room/globalmed-in-the-news/2015/globalmed-telemedicine-solution-in-chile.php>.
- ix *Chile IPTV Playlist*, *available at* <http://iptv.filmover.com/chile-iptv-playlist/>.
- x Electronic Communications Act, *available at* <https://www.ip-rs.si/index.php?id=504>.
- xi *Telemedicine in blood transfusion*, Blood Transfusion Centre of Slovenia, *available at* <http://www.ztm.si/en/research/development-education/it--projects/telemedicine-in-blood-transfusion/>.
- xii *TV and on-demand audiovisual services in Slovenia*, MAVISE-Database on TV and on-demand audiovisual services and companies in Europe, *available at* <http://mavise.obs.coe.int/country?id=27>.
- xiii *Network neutrality: Guidelines for Internet neutrality*, Version 1.0, February 24, 2009, *available at* http://www.legi-internet.ro/fileadmin/editor_folder/pdf/Guidelines_for_network_neutrality_-_Norway.pdf.
- xiv *The net neutrality service model explained*, Norwegian Communications Authority, *available at* http://eng.nkom.no/technical/internet/net-neutrality/net-neutrality/_attachment/12631?_ts=1452775f759.
- xv *On the origin of specialized services*, Norwegian Communication Authority, June 6, 2014, *available at* <http://eng.nkom.no/technical/internet/net-neutrality/on-the-origin-of-specialised-services>.
- xvi *Regulating a Borderless Internet: EU vs US Perspectives on Net Neutrality*, Round Table Report, White Paper, March 4, 2015, *available at* http://www.openforumacademy.org/events/04-03-2015-ofa-round-table-regulating-a-borderless-internet-eu-vs-us-perspectives-on-net-neutrality/OFA_RT_040315_final.pdf.
- xvii *DRAFT BEREC Guidelines on Net Neutrality and Transparency: Best Practices and recommended approaches*, Body of European Regulators for Electronic Communications, *available at* http://berec.europa.eu/files/news/consultation_draft_guidelines.pdf.

xviii Commission Staff Working Document, *Implementation of the EU regulatory framework for electronic communications- 2014*, available at http://ec.europa.eu/newsroom/dae/document.cfm?doc_id=6473.

xi *Net Neutrality in the EU- Country Factsheets*, Openforum Academy, (last updated in September, 2013, available at <http://www.openforumacademy.org/library/ofa-research/OFA%20Net%20Neutrality%20in%20the%20EU%20-%20Country%20Factsheets%2020130905.pdf>).

xx *Supra* BEREC, note xvii.

xxi *Public consultation on specific aspects of transparency, traffic management and switching in an Open Internet*, European Commission, available at http://ec.europa.eu/newsroom/dae/document.cfm?doc_id=3062.

xxii Presentation, Capital Markets Day, 2007, available at <https://www.teliasonera.com/Documents/Presentations/2007/TeliaSonera-Capital-Markets-Day-20070515-EN.pdf>.

xxiii *Telemedicine in Denmark*, Momentum, available at <http://telemedicine-momentum.eu/denmark/>.

xxiv *Id.*

xxv Law No. 12.965, available at <https://www.publicknowledge.org/assets/uploads/documents/APPROVED-MARCO-CIVIL-MAY-2014.pdf>.

xxvi *Brazil Starts Pediatric Care Through Telemedicine in Sergipe*, The Network, February 18, 2014, available at <http://newsroom.cisco.com/press-release-content?type=webcontent&articleId=1352184>.

xxvii Management Report, Brasil Telecom S.A., February 19, 2008, available at <http://www.secinfo.com/d17EG1.tbh.htm>.

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