

Net Neutrality, Antitrust, and Startups in the European Union

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I. INTRODUCTION

You have had a long day; you just want to lay in your bed and re-watch an episode of *The Office* for the eighth time. You grab your ice cream, get in your bed, open Netflix, and click on *Casual Friday*, episode twenty-six, season five of *The Office*, because you love the opening scene where Kevin spills his pot of chili all over the office floor.¹ As you are about to settle in for the comedic glory, the show freezes. On the screen appears the “spinning circle of death”, followed by “twenty-four percent loaded”, “twenty-six percent loaded”, “thirty-three percent loaded”; your ice cream is melting! You begin to panic: “forty-four percent”, “fifty-two percent” . . . seconds pass. Should you eat your ice cream before it melts or try and wait for the show to start? A true modern dilemma. Sixty-seven, seventy-two, eighty-eight percent. You’re almost there. Ninety-nine percent! Yet, still, spinning, spinning, spinning. Ninety-nine percent. More spinning. Almost there. Ninety-nine percent stays on the screen for seconds that feel like hours.

Finally, it begins. You get twenty-one seconds in, right as Kevin spills the chili, and your computer freezes again.² The circle comes back. Spinning, spinning, spinning. Sixty-eight percent, ninety-three percent. *You* begin to spin; you begin to spin, spin, spin into an inner silent rage. Your ice cream is melted, your show will not load.

As you try to distract yourself from the pain, you grab your phone and open BuzzFeed to keep yourself entertained while Netflix spins. You find a quiz to tell you which kind of potato you are based on your taste in music. Slowly, the quiz starts to load, and you begin answering the questions, secretly hoping you are a Yukon Gold Potato. You get to the last question, but the answer choices will not load. You wait. Seconds go by that feel like hours. The question is not loading, but you need to know. Your heart is pounding, and your head is spinning. Will you ever find out if you are an Idaho potato? A russet? Or the esteemed Yukon Gold you’ve hoped for? Seconds pass, the quiz never loads, and your inner rage blazes on. Your ice cream, a bowl of chocolate and brownie soup, spills onto the floor. A long and awful day, made even worse by your slow internet.

This catastrophe was seemingly unavoidable. The internet has become so crowded that it is not surprising nothing would load. In fact, if your internet provider is Comcast, it is completely plausible that you fell victim to

1. *The Office: Casual Friday* (NBC television broadcast Apr. 30, 2009).
2. *Id.*

Comcast slowing your Netflix connection on purpose.³ So, what is there to do? The problem of internet traffic has now entered the personal sphere for individual users, and has gained attention in popular culture⁴ and politics.⁵ This was inevitable: from fitness tracking, to sending emails, automated surgeries, social media, and everything in between, more and more is happening on the internet. There are so many people using the internet that controlling the traffic and maintaining manageable speeds for users has become a real problem.

For years, the European Union and the United States have found themselves in an uphill battle to maintain the open nature of the Internet, or as it was coined in 2003, net neutrality.⁶ Many broadband providers wish to diminish or totally destroy net neutrality, forcing edge carriers (i.e. Google, Amazon, or anyone who creates and posts content on the Internet) to pay premium fees in order for their content to not be blocked, intentionally degraded in quality, or placed in a less favorable position than the content or applications that the broadband carrier themselves have created, or content or applications that have paid premiums to the broadband carriers.⁷ Some argue that this behavior by Internet Service Providers (ISPs) should be allowed to continue; those who dislike this behavior argue that we need net neutrality and regulation by the FCC or its foreign equivalents; and finally a third group argues that net neutrality

3. David Goldman, *Slow Comcast Speeds Were Costing Netflix Customers*, CNN (Aug. 29, 2014), <http://money.cnn.com/2014/08/29/technology/netflix-comcast/index.html> [<https://perma.cc/6WWQ-3DQR>].

4. See John Oliver, *Net Neutrality: Last Week Tonight with John Oliver (HBO)*, YOUTUBE (June 1, 2014), <https://www.youtube.com/watch?v=fpbOEoRrHyU> [<https://perma.cc/AX57-KVBY>]; see also John Oliver, *Net Neutrality II: Last week Tonight John Oliver (HBO)*, YOUTUBE (May 7, 2017), <https://www.youtube.com/watch?v=92vuuZt7wak> [<https://perma.cc/785Z-ZH26>]; Antonio Villas-Boas, *Burger King's Prank Net-neutrality Video Shows What Happens when Customers Are Charged \$26 for Faster Whopper Service*, BUS. INSIDER (Jan. 24, 2018, 6:32 PM), <http://www.businessinsider.com/burger-king-releases-net-neutrality-prank-video-2018-1> [<https://perma.cc/2933-C9LP>].

5. Jim Puzzanghera, *A Brief, Strange History of Net Neutrality (Including a 'Series of Tubes,' a Dingo and James Harden)*, L.A. TIMES (May 3, 2017), <http://www.latimes.com/business/la-fi-net-neutrality-timeline-20170502-htmlstory.html> [<https://perma.cc/52XS-X9JT>].

6. Klint Finley, *The Wired Guide to Net Neutrality*, WIRED (May 9, 2018, 7:00 AM), <https://www.wired.com/story/guide-net-neutrality/> [<https://perma.cc/7KH6-WRUL>].

7. Klint Finley, *Internet Providers Insist They Love Net Neutrality. Seriously?*, WIRED (May 18, 2017), <https://www.wired.com/2017/05/fcc-votes-begin-dismantling-net-neutrality/> [<https://perma.cc/UN7E-Z9DV>].

does not need to be its own issue and should be regulated as an antitrust issue.⁸

The United States has swung back and forth, implementing and repealing net neutrality regulations, with the regulations continuously being challenged and defined in court.⁹ Many of the early issues in properly regulating net neutrality in the United States date back to the classification of broadband carriers put into place in the 1980s.¹⁰ A recent regulation, put into effect in June of 2015, implemented net neutrality with Title II classification.¹¹ This means that ISPs would be reclassified as common carriers under Title II of the Communications Act of 1934. Being classified as a common carrier means the FCC would have much broader power over ISPs, and would bring ISPs within the full authority of the FCC.¹² However, Title II classification has recently been under attack by the current FCC chairman, Ajit Pai, as he feels regulation by the FCC is too much for small internet providers to handle.¹³ In December of 2017, the FCC voted to repeal the Obama era protections, removing Title II classification from ISPs.¹⁴

Many in the United States, including numerous startups,¹⁵ are concerned that the new net neutrality rules in the United States will change the economics of the internet, as “[u]nder Pai’s proposal, broadband providers will be allowed to charge all websites and services, including startups,

8. See generally, Hon. Maureen K. Ohlhausen, *Antitrust Over Net Neutrality: Why We Should Take Competition in Broadband Seriously*, 15 COLO. TECH. L.J. 1 119 (2016).

9. See *Verizon v. FCC*, 535 U.S. 467 (2002); see also *Nat’l Cable and Telecomms. Ass’n v. Brand X Internet Servs.*, 545 U.S. 967 (2005); *U.S. Telecom Ass’n v. FCC*, 825 F.3d 674 (D.C. Cir. 2016).

10. See generally *Nat’l Cable and Telecomms. Ass’n v. Brand X Internet Servs.*, 545 U.S. 967 (2005) (upholding that services like phones are considered public utilities and classified as common carriers, so they cannot discriminate; however, the internet is not classified the same way).

11. Jeff Sommer, *What the Net Neutrality Rules Say*, N.Y. TIMES (Mar. 12, 2015), <https://www.nytimes.com/interactive/2015/03/12/technology/net-neutrality-rules-explained.html> [<https://perma.cc/8AYW-JXTE>]; Protecting and Promoting the Open Internet, GN Docket No. 14-28 (30 FCC Rcd 5601 (7) Mar. 12, 2015).

12. See generally, Protecting and Promoting the Open Internet, 31 FCC Rcd 1977 (3) (2015).

13. Jacob Kastrenakes, *FCC Announces Plan to Reverse Title II Net Neutrality*, VERGE (Apr. 26, 2017), <https://www.theverge.com/2017/4/26/15437840/fcc-plans-end-title-ii-net-neutrality> [<https://perma.cc/7XES-7J62>].

14. See Seth Fiegerman, *Trump’s FCC Votes To Repeal Net Neutrality*, CNN (Dec. 14, 2017, 5:00PM), <http://money.cnn.com/2017/12/14/technology/fcc-net-neutrality-vote/index.html?iid=EL> [<https://perma.cc/M5Z5-D5F5>].

15. See Alasdair Wilkins, *How the FCC’s Vote on Net Neutrality Will Affect Innovation and Startups*, INVERSE (Dec. 12, 2017), <https://www.inverse.com/article/39338-net-neutrality-startups-innovation-fcc> [<https://perma.cc/5W42-VM53>]; James Vincent, *Kill Net Neutrality and You’ll Kill Us, Say 800 US Startups*, VERGE (Apr. 27, 2017, 4:28 AM), <https://www.theverge.com/2017/4/27/15447394/fcc-net-neutrality-roll-back-startups-letter-y-combinator> [<https://perma.cc/NZ7Y-3976>].

simply to reach an ISP's subscribers. That's a huge threat to the low cost of starting a company."¹⁶ Despite the debate, the previous regulations in the United States have been used as a model or rough guideline for many other foreign governments.

In November of 2015, the European Union adopted its first EU-wide net neutrality rules, Regulation (EU) 2015/2120.¹⁷ The regulation prohibits blocking, throttling, or discrimination of internet traffic by ISPs unless ISPs need: (1) to comply with legal obligations, (2) to maintain the integrity of the work, or (3) to manage congestion in extreme and temporary situations.¹⁸ This regulation is by far the strongest position the European Union has taken on net neutrality. Regulation 2015/2120 is certain to have numerous lasting implications in the European Union, particularly on new technologies and services wishing to enter the market in the European Union.

If interpreted independently of antitrust law, with varied application across member states, and with the continued allowance of anti-competitive practices, like zero-rating, the European Union regulations are sure to influence the European startup market. Specifically, the imposition of the European Union regulations will influence the European startup market by increasing barriers of market entry, thereby making it more difficult for startups in the European Union to compete with the giants of Silicon Valley. Net neutrality regulations that are poorly written or interpreted and applied incorrectly can violate antitrust laws and promote monopolistic behavior. When this occurs, it creates a strong barrier of entry for a startup seeking to enter the market. Council Regulation 2015/2120's areas of weakness have incited concern from some that it will be interpreted and implemented in an anti-competitive manner.¹⁹

However, despite issues and loopholes that may be presented by the European Union's regulations, if interpreted correctly they are a step in the right direction and provide numerous protections for an open internet

16. Ryan Singel, *Expect Fewer Great Startups if the FCC Kills Net Neutrality*, WIRED (Dec. 12, 2017, 7:00 AM), <https://www.wired.com/story/expect-fewer-great-startups-if-the-fcc-kills-net-neutrality/> [<https://perma.cc/3FUV-TWQ9>].

17. Council Regulation 2015/2120, 2015 O.J. (L 310) 1 (EU) [hereinafter Council Regulation 2015/2120].

18. *Id.* at 13–15.

19. Alex Hern, *EU Net Neutrality Laws Fatally Undermined by Loopholes, Critics Say*, GUARDIAN (Oct. 27, 2015, 9:30 AM), <https://www.theguardian.com/technology/2015/oct/27/eu-net-neutrality-laws-fatally-undermined-by-loopholes-critics-say> [<https://perma.cc/G8J3-RGJ8>].

and allow for the entrance of startups into the European Union market. The Body of European Regulators for Electronic Communication (BEREC) has provided guidelines for interpretation that fix many of the issues that were present.²⁰ However, the actual application of the rules may vary greatly among many European Union member states as much of the application and enforcement is up to the independent discretion of National Regulatory Authorities (NRAs), which many member states fear will undermine the application of their own, stronger regulations. Also, there are still areas where bad behavior by ISPs is allowed, such as zero-rating.²¹ In order to prevent this from happening, the European Union should ensure that Regulation 2015/2120's interpretation and implementation across all member states is uniform and falls in line with their antitrust regulations. In addition, the internet and its infrastructure have become part of our basic existence, and it therefore should be treated in many ways as a public utility, with the appropriate government bodies dealing with issues of capacity and the physical infrastructure.

II. KEY CONCEPTS

A. *Net Neutrality*

At its creation, the technical architecture of the internet was designed to treat content without discrimination, allowing any content, application, or service, despite its origin, to flow freely without being blocked, or degraded in quality.²² The objective “was to create a resource sharing, worldwide communications network that would facilitate collaboration and enhance the advancement of science and public knowledge” and “each user would have equal access and the ability to have unencumbered freedom to express ideas and information.”²³ This openness allowed for incredible innovation, leading to tech giants such as Google, Amazon, and Facebook. The open and non-discriminatory nature of the internet was not an issue in the internet's earlier days, with information flowing over the network to its

20. Karl Bode, *Surprise! European Union Adopts Net Neutrality Guidelines that Don't Suck*, TECHDIRT (Aug. 31, 2016, 3:31 AM), <https://www.techdirt.com/articles/20160830/09003435391/surprise-european-union-adopts-net-neutrality-guidelines-that-dont-suck.shtml> [https://perma.cc/XU9G-BJWD].

21. *Id.*

22. Ben Scott, Stefan Heumann & Jan-Peter Kleinhaus, *Landmark EW and US Net Neutrality Decisions: How Might Pending Decisions Impact Internet Fragmentation*, GLOBAL COMMISSION INTERNET GOVERNANCE 1 (July 2015), <https://www.cigionline.org/sites/default/files/no18.pdf> [https://perma.cc/8W6W-C8UR].

23. *Internet Fragmentation: An Introduction (Part I)*, VERTEX BLOG (Apr. 1, 2016), <https://www.vertex-us.com/single-post/2016/04/01/Internet-Fragmentation-An-Introduction-Part-I> [https://perma.cc/QV6W-C8UR].

relatively few users.²⁴ However, as internet use increases, so does the concern of traffic and overcrowding.

Global internet traffic is growing by an estimated twenty-two percent per year.²⁵ Now, over three billion people across the globe use the internet,²⁶ and in 2016 it carried ninety-six Exabytes of data per month.²⁷ This amount of data would be unimaginable in physical terms.²⁸

While this incredible use of the internet is a great thing from many perspectives, it also creates congestion. Congestion on the internet essentially means that there are “packets” of data waiting in line to get access to the physical infrastructure that will route the data to its destination.²⁹ When the line gets long, packets that have been waiting for too long will get “dropped”; significant levels of packet dropping degrades the quality of user experiences, and high enough levels result in non-functionality of internet services—like when you’re trying to watch *The Office* on Netflix, but it won’t load.³⁰ So, as you can imagine, when ninety-six Exabytes of data are being transferred across the internet every month, the packet line gets very long. This congestion is a real and tangible issue that governments across the globe have been attempting to address.³¹ This issue and debate has been centered around the term “net neutrality.”

24. *Internet Growth Statistics*, INTERNET WORLD STATS, <http://www.internetworldstats.com/emarketing.htm> [<https://perma.cc/QV6W-C8UR>].

25. Jeff Hecht, *The Bandwidth Bottleneck That Is Throttling the Internet*, SCIENTIFIC AMERICAN (Aug. 10, 2016), <https://www.scientificamerican.com/article/the-bandwidth-bottleneck-that-is-throttling-the-internet/#> [<https://perma.cc/RP6F-UBRK>].

26. Jacob Davidson, *Here’s How Many Internet Users There Are*, TIME: MONEY (May 26, 2015), <http://time.com/money/3896219/internet-users-worldwide/> [<https://perma.cc/YU6R-ZUHW>].

27. *The Zettabyte Era: Trends and Analysis*, CISCO (June 7, 2017), <https://www.cisco.com/c/en/us/solutions/collateral/service-provider/visual-networking-index-vni/vni-hyperconnectivity-wp.html> [<https://perma.cc/4E6X-NKDG>].

28. One Exabyte of data is approximately one billion gigabytes; one gigabyte is large enough to hold about one library floor’s worth of academic journals. Therefore, one Exabyte of data is like a one billion story library full of academic journals. WHATSABYTE, <https://whatsabyte.com> (last visited Sept. 18, 2018).

29. Scott et al., *supra* note 22, at 2.

30. *Id.*

31. See, e.g., Telecom Regulatory Policy, SOR/2009-657 (Can.); Law No. 20453, Consagra El Principio De Neutralidad En La Red Para Los Consumidores Y Usuarios De Internet, Agosto 26, 2010, DIARIO OFICIAL [D.O.] (Chile); Law No. 0030210, Zakon o elektronskih komunikacijah, Dec. 28, 2012, OFFICIAL GAZETTE OF THE REPUBLIC OF SLOVENIA (Slovn.); Law No. 27078, Dec. 19, 2014, [CXXII] B.O. 1 (Arg.).

Net neutrality was first coined in 2003 by Columbia Law Professor Tim Wu.³² Wu defines net neutrality as “a network design principle. The idea is that a maximally useful public information network aspires to treat all content, sites, and platforms equally. This allows the network to carry every form of information and support every kind of application.”³³ Essentially, net neutrality refers to nondiscriminatory access to all lawful content, applications, and services on the internet regardless of the source or creator.

There are two basic solutions to the problem of internet congestion: the first solution is to accommodate the growth in traffic by increasing the network capacity; the second is to create a “fast lane” by monetizing the congestion and allowing paying customers to skip the line, thereby requiring discrimination between content, applications, or services that have paid and those that have not.³⁴ Net neutrality would favor the first approach: fixing the congestion by accommodating for this increase in growth.³⁵

Increasing network capacity to accommodate growth in internet traffic and reduce packet dropping might sound simple and like a good solution, but it is an expensive endeavor that presents numerous political and practical problems. In the United States, despite broad voter support on both sides of the aisle, Republican politicians are vehemently opposed to net neutrality regulations.³⁶ Net neutrality in the United States has become a partisan issue, with many politicians opposing net neutrality regulations and receiving large donations from cable and telecom companies to do so.³⁷ In the European Union, the largest and wealthiest content and service providers that would have to pay extra fees are mostly non-European companies, such as Google or Microsoft, likely dis-incentivizing the European Union from reducing these fees.³⁸ In addition, many of the startups most affected by possible net neutrality rules lack any real clout and have failed to properly align themselves with politicians.³⁹ Furthering this problem is the fact that many European telecommunication companies are formerly or partially state owned, with close ties to their respective governments.⁴⁰

32. Scott et al., *supra* note 22, at 3.

33. Tim Wu, *Network Neutrality FAQ*, TIM WU http://www.timwu.org/network_neutrality.html (last visited Nov. 6, 2018) [<https://perma.cc/84MV-Z4YB>].

34. Scott et al., *supra* note 22, at 2.

35. *See id.*

36. Haley Sweetland Edwards, *Why 2016 Republicans Oppose Net Neutrality*, TIME (Mar. 13, 2015), <http://time.com/3741085/net-neutrality-republicans-president/> [<https://perma.cc/G3UG-YG98>].

37. *See id.*

38. *See* Scott et al., *supra* note 22, at 5.

39. *See id.*

40. *A Multi-Speed Europe*, ECONOMIST (Oct. 31, 2015), <https://www.economist.com/news/business/21677175-eus-new-internet-rules-will-hurt-continents-startups-multi-speed-europe> [<https://perma.cc/XR3B-RJFL>].

While political motives may be either lacking on the part of politicians or difficult to catalyze in certain political climates, it is also an extremely expensive endeavor to increase the internet's capacity. Private companies such as Google, Facebook, Microsoft, and ISPs⁴¹ are spending billions of dollars to lay fiber-optic cables that stretch across the globe.⁴² To cover these costs, the ISPs can either charge consumers or charge the companies using more of the network.⁴³ This seems to bring the problem full circle: even if countries and companies opt to increase the capacity of the internet rather than allowing ISPs to monetize the congestion, fixing the congestion of the internet is going to cost someone.

Critics of net neutrality argue that keeping all lanes of the internet the same speed is a bad thing. One critic argues that receiving certain data faster than others is comparable to having the option to pay for expedited shipping of certain physical goods.⁴⁴ He points out that when consumers buy products on the internet, they can choose to pay more for expedited shipping because some things need to get to their destination faster than others.⁴⁵ There is no practical way for consumers to pay for certain content to be slower and others to be faster while using the internet, but the content provider can pay, and it can then pass the costs along to the consumer.⁴⁶ For example, this would mean that Netflix would pay a premium to Comcast to not have its content degraded or slowed, and then Netflix in turn would charge the consumer more each month for your subscription.⁴⁷

The issue that this critic and others seem to gloss over is that giant tech companies with money to burn will have no issue paying fees to ISPs and passing the costs along to consumers if they choose to do so. A consumer will probably not stop his or her Netflix subscription if it were to cost an extra couple of dollars each month. Companies that might have chosen to enter the market as a startup before the possibility of net neutrality will

41. Steve Forbes, *Net Neutrality: A Web of Deceit*, REUTERS (June 9, 2014), <http://blogs.reuters.com/great-debate/2014/06/09/net-neutrality-a-web-of-deceit/> [<https://perma.cc/B8VZ-83QF>].

42. See Hecht, *supra* note 25.

43. Forbes, *supra* note 41.

44. Jeffrey Dorfman, *Net Neutrality Puts Everyone in the Internet Slow Lane*, FORBES: OPINION (Feb. 27, 2015), <https://www.forbes.com/sites/jeffreydorfman/2015/02/27/net-neutrality-puts-everyone-in-the-internet-slow-lane/#17cca39cbece> [<http://perma.cc/5QCY-73X8>] (arguing that net neutrality is an anti-free market ideal that is bad for consumers).

45. *Id.*

46. *Id.*

47. *Id.*

likely have little problem restructuring their business model to accommodate this, as they will likely have a loyal customer or user base and the financial means to do so. However, if anyone new ever wants to enter the market, this can create a pretty high barrier of entry. Companies like Comcast can bully newcomers into paying;⁴⁸ without paying the fees, their content will be hard to access, slow, and poor in quality, which will make it even harder for them to build a loyal base of customers and users. In addition, start-ups have to build loyalty before they can begin charging these inflated rates, and may not have the capital to cover it without passing it to the consumer when they first begin, which consumers may not be willing to pay for. The principles of the free market may work in many arenas, but here they seem likely to create monopolies if not constrained by regulation.

Net neutrality is an extremely divisive topic, pitting public interest groups, the internet technical community, and online content providers against telecommunications operators and ISPs.⁴⁹ To public interest groups, the internet technical community, and online content providers, net neutrality is essential, as the groups' interests dictate that all data on the internet be handled in the same non-discriminatory manner regardless of user, content, application, equipment, or mode of communication.⁵⁰ On the other hand, to telecommunications operators and ISPs, it is imperative that they are able to differentiate along these lines to shape traffic, manage network resources, and recover costs of operation in order to invest in the expansion and upkeep of their networks and services.⁵¹ It is clear that both sides of the debate have valid concerns and interests, each with their own unique consequences in politics, economics, and the user experience.

B. Net Neutrality and Anti-Competitive Practices

Considering the economic implications of net neutrality and the monopolistic possibilities for ISPs and incumbent technology firms, it is easily understood as an antitrust issue. Because of this, it makes sense that net neutrality should also be regulated under the umbrella of an antitrust governing body, because the antitrust body is likely to understand competition-oriented disputes and resolve them on economic grounds.⁵²

48. Goldman, *supra* note 3.

49. William J. Drake et al., *Internet Fragmentation: An Overview*, WORLD ECON. F. 50–51 (Jan. 2016), http://www3.weforum.org/docs/WEF_FII_Internet_Fragmentation_An_Overview_2016.pdf [<https://perma.cc/6HQA-E7P3>].

50. *Id.* at 51.

51. *Id.*

52. See Jonathan E. Nuechterlein, *Antitrust Oversight of Antitrust Dispute: An Institutional Perspective on Net Neutrality Debate*, 7 J. ON TELECOMM. & HIGH TECH. L. 19, 21 (2009).

A full and comprehensive regulation of net neutrality would consider the need for regulation under antitrust law, as “various sets of legal rules—including laws limiting barriers to entry. . . —reduce the costs of entrepreneurial action and failure, thus emboldening entrepreneurs to exploit opportunities.”⁵³ Essentially, having laws that foster competition will allow for the entrance of small and new start-ups into the internet economy. Put simply, “[a]ny legal system that wishes to promote entrepreneurial action must employ mechanisms that constrain the inevitable pressure to favor incumbent firms.”⁵⁴ Therefore, instating net neutrality laws that regulate ISPs, constraining their ability to discriminate against content, is inherently essential to the furtherance of antitrust goals and the allowance of new entrants into the market.

Some experts believe antitrust and the issue of an open internet are so inherently related that antitrust laws themselves would do a better job regulating the issue as opposed to independent net neutrality laws.⁵⁵ Proponents of a pure antitrust approach find that “net neutrality enthusiasts are also just plain wrong,” and existing government oversight, like antitrust law, is sufficient to prohibit potential anti-competitive behavior.⁵⁶ They further tout that ex ante regulations are normally only justified where market forces are inadequate, and here such market forces are not.⁵⁷

However, these proponents’ contention that the combination of free market and some case by case antitrust enforcement would sufficiently regulate bad behavior by ISPs seems to fall short in practice. As mentioned earlier, ISPs have already been found to hamper the connections of customers unwilling to pay a premium.⁵⁸ Furthermore, most Americans have limited choices for an ISP because ISPs behave similarly to cartels, but are not as regulated as cartels.⁵⁹ The major ISPs have divided the country, having

53. D. Gordon Smith & Darian M. Ibrahim, *Law and Entrepreneurial Opportunities*, 98 CORNELL L. REV. 1533, 1536 (2013) (emphasis original).

54. *Id.* at 1565.

55. See Ohlhausen, *supra* note 8, at 133.

56. Robert Hahn & Robert Litan, Opinion, *Competition and Antitrust Law Can Protect the Internet*, BROOKINGS (Oct. 3, 2006) <https://www.brookings.edu/opinions/competition-and-antitrust-law-can-protect-the-internet/> [<https://perma.cc/E9LX-NYMZ>].

57. See Ohlhausen, *supra* note 8.

58. See Goldman, *supra* note 3.

59. David Johnston, Opinion, *Bad Connections*, N.Y. TIMES (Nov. 27, 2012), <http://www.nytimes.com/2012/11/28/opinion/break-up-the-telecom-cartels.html> [<https://perma.cc/466C-HFEV>]; Bill Snyder, Opinion, *Are Cable Companies Like Drug Cartels?* *John Oliver Thinks So*, CIO (June 2, 2014), <https://www.cio.com/article/2369967/internet/>

one or two control each territory.⁶⁰ This leaves consumers with no choice other than the ISP available in their area.⁶¹ Thus, ISPs have been able to behave in such a way that avoids antitrust regulation and is antithetical to the free market.

Furthermore, using antitrust regulations alone is insufficient as it fails to address the issue of increased congestion.⁶² Either the capacity of the internet needs to be enlarged, or there needs to be a paid prioritization system to manage the traffic. Proponents of a pure antitrust approach do not properly address which solution they prefer, and seem to believe that antitrust law, used on a case by case basis for violations by ISPs, is sufficient.⁶³ This is a short-term solution, as it fails to solve or address overcrowding of the internet. While antitrust may not be the answer to solving the congestion problem, it may be a helpful tool in working to preserve an open internet.⁶⁴

A relatively new and complex issue facing net neutrality is that startups that were once new market entrants—encouraging diversification and innovation—are now getting eerily close to becoming monopolies of their own with just as much power as an ISP, if not more, over what content is visible to their users.⁶⁵ Private power is increasingly concentrated among a handful of tech platforms, and with this power they can cultivate messages and consumer interactions that are favorable for them and their ancillaries.⁶⁶ For example, Amazon recently struck a deal with Avis Rent a Car and programmed its own intelligent personal assistant device, Alexa, to give only one response when asked about booking a rental car—booking with Avis.⁶⁷ This sort of behavior looks frighteningly similar to

are-cable-companies-like-drug-cartels—john-oliver-thinks-so.html [https://perma.cc/KR6G-V5LL].

60. See Johnston, *supra* note 59.

61. See *id.*

62. Barbara van Schewick, *Network Neutrality and Quality of Service: What a Nondiscrimination Rule Should Look Like*, 67 STAN. L. REV. 1, 61–62 (2015).

63. Nicholas Dickerson, Comment, *What Makes the Internet So Special? And Why, Where, How, and by Whom Should Its Content Be Regulated?*, 46 HOUS. L. REV. 61, 63–64 (2009).

64. Larry Downes, *Unscrambling the FCC's Net Neutrality Order: Preserving the Open Internet—but Which One?*, 20 COMM. L. CONCEPTS 83, 96 (2011).

65. See e.g., James Grimmelmann, *Speech Engines*, 98 MINN. L. REV. 868, 870 n.3 (2014).

66. K. Sabeel Rahman, *Monopoly Men*, BOSTON REV. (Oct. 11, 2017), <http://bostonreview.net/science-nature/k-sabeel-rahman-monopoly-men> [https://perma.cc/5Q9B-FWGP] (discussing the enormous political and economic clout American “startups” have now garnered).

67. Hal J. Singer, *Paid Prioritization and Zero Rating: Why Antitrust Cannot Reach the Part of Net Neutrality Everyone is Concerned About*, ANTITRUST SOURCE, 1 (Aug.

zero-rating, an anticompetitive behavior that will be explored further, which was typically only engaged in by ISPs, not tech firms themselves.

C. Internet Fragmentation

A common term for the degradation of or interference with access to content on the internet is “fragmentation”.⁶⁸ A “fragmented internet” means that one user’s experience on the internet may be entirely different than another user’s experience on a different fragment; it is the idea that the internet may split into a series of cyberspace segments, endangering connectivity.⁶⁹ Fragmentation does not have a clearly defined, widely shared understanding of what the term does and does not encompass.⁷⁰ However, the general concern related to fragmentation is that the internet is in danger of breaking off into “loosely coupled islands of connectivity.”⁷¹

To understand internet fragmentation, it is helpful to define its opposite: an “open and coherent” internet. An “open and coherent internet” implies that each of the elements of the internet “are orchestrated to work together to produce a seamless internet which does not expose the boundaries between discrete elements.”⁷² An open and coherent internet also implies that the same actions by a user will produce the same response, regardless of the users location and service provider, and that new technologies will be allowed to evolve by building on and integrating with existing technologies.⁷³ So, a fragmented internet would lead to outcomes for users that are not coherent and consistent.⁷⁴

There are three generally accepted categories of internet fragmentation: technical fragmentation, governmental fragmentation, and commercial

2017), https://www.americanbar.org/content/dam/aba/publishing/antitrust_source/aug17_singer_8_2f.authcheckdam.pdf [<https://perma.cc/VM9L-5PBR>].

68. *Internet Fragmentation: An Introduction (Part I)*, VERTEX BLOG, <https://www.vertex-us.com/single-post/2016/04/01/Internet-Fragmentation-An-Introduction-Part-I> [<https://perma.cc/Q42V-C7S8>].

69. Drake et al., *supra* note 49, at 3.

70. *Id.*

71. *Id.*

72. Geoff Huston, *Thoughts on the Open Internet—Part 2: The Where and How of “Internet Fragmentation”*, CIRCLEID (Oct. 6, 2015), http://www.circleid.com/posts/20151006_open_internet_part_2_where_and_how_of_internet_fragmentation/ [<https://perma.cc/A6JE-EP5G>].

73. *Id.*

74. *Id.*

fragmentation.⁷⁵ Technical fragmentation includes technological conditions that hinder the infrastructure and keep it from efficiently interoperating and exchanging information.⁷⁶ Governmental fragmentation comes into play when governmental policies and actions interfere with or limit creating, accessing, or distributing certain information.⁷⁷ Commercial fragmentation includes business practices such as blocking or throttling by ISPs that prevent or constrain specific uses of the internet to create, distribute, or access information.⁷⁸ While these definitions are accepted, fragmentation may vary greatly in dimensions and attributes, such as occurrence, intentionality, impact, and character.⁷⁹

D. Zero Rating

Zero-rating, mentioned above, is the common practice among the mobile sector of allowing access to particular content, applications, or services which will not count against a consumer's capped data.⁸⁰ Consumers use their data every time they go online without the device being connected to a WIFI network, and each month, the data used by an individual on mobile devices is capped at a certain amount.⁸¹ So eventually after enough use, users will reach their data limit; once the limit is met, some carriers may slow down your connection, while others will cut off your data completely until the next month. Zero-rating is an exception to this rule. So if, for example, Twitter is covered by a zero-rating offer, you can use Twitter unconnected to WIFI without eating into your monthly data cap.

Zero-rating has been common practice for a long time with things like free texting, and it is often used in developing countries, as it is regarded as a way to bring down the costs associated with accessing information.⁸² Because of its use in these less developed countries, it is lauded by its supporters as having broad social benefits, as they claim it is a way

75. Drake et al., *supra* note 49, at 4; *Internet Fragmentation: An Introduction (Part I)*, *supra* note 68.

76. *Internet Fragmentation: An Introduction (Part I)*, *supra* note 68.

77. *Id.*

78. *Id.*

79. Drake et al., *supra* note 49, at 4.

80. *Zero Rating vs Net Neutrality—a (Still) Uncertain Future in the EU and Serbia*, BDK ADVOKATI (June 28, 2017), <https://www.lexology.com/library/detail.aspx?g=8df9a669-06cc-4296-b9fc-04a5eb06af46> [<https://perma.cc/E43L-WU9Z>].

81. *Id.*

82. Carolina Rossini & Taylor Moore, *Exploring Zero-Rating Challenges: Views from Five Countries* 3 (Public Knowledge, Working Paper, 2015), <https://www.publicknowledge.org/documents/exploring-zero-rating-challenges-views-from-five-countries> [<https://perma.cc/A6C3-4RCC>].

to close the digital divide.⁸³ However, critics of zero-rating are skeptical of supporters' claims of social benefits, and view it as an anti-competitive and discriminatory practice that violates the nature of net neutrality and an open internet.⁸⁴ Zero-rating must be examined on a country by country basis, as zero-rating clashes the sanctity of net neutrality principles against the urgent need to close the digital divide in developing countries.⁸⁵

III. GOVERNING LAW

A. Regulation 2015/2120

Regulation of net neutrality in the European Union has generally advanced toward an open internet and preserving net neutrality. In 2012, it was proposed by the European Telecommunications Network Operators Association that content providers would have to pay to have their information delivered, in addition to their existing fees for connectivity.⁸⁶ This proposal was not adopted, and the European Union has rejected this sort of "pay for play" type of regulation.⁸⁷

In its most recent effort to preserve net neutrality, the European Union adopted Council Regulation 2015/2120 in the fall of 2015, "laying down measures concerning open internet access and amending *** Directive 2002/22/EC on universal service and users' rights relating to electronic communications networks and services and Regulation (EU) No 531/2012 on roaming on public mobile communications networks within the Union."⁸⁸ The main directive of Council Regulation 2015/2120 was to strengthen net neutrality by requiring ISPs to treat all web traffic equally.⁸⁹

Though well-intentioned, when Council Regulation 2015/2120 was first enacted the regulations contained major loopholes that stood in the way of the goals and its purpose. Under Council Regulation 2015/2120 as written,

83. *Id.* at 2.

84. *Id.* at 3.

85. Arturo J. Carrillo, *Having Your Cake and Eating it Too: Zero-Rating, Net Neutrality, and International Law*, 19 STAN. TECH L. REV. 364, 364 (2016).

86. Drake et al., *supra* note 49, at 49.

87. *Id.* at 50.

88. Council Regulation 2015/2120 (EU).

89. Amar Toor, *Europe's Net Neutrality Guidelines Seen as a Victory for the Open Web*, VERGE (Aug. 30, 2016), <https://www.theverge.com/2016/8/30/12707590/eu-net-neutrality-rules-final-guidelines-berec> [<https://perma.cc/P9D5-S3AM>].

ISPs are prohibited from blocking, throttling, or discriminating against internet traffic with three exceptions: in order to comply with legal obligations, in order to maintain the integrity of the work, and in order to manage congestion in extreme and temporary situations.⁹⁰ The regulation also includes a provision that allows ISPs to create fast lanes for specialized services, and another provision that allows for zero-rating.⁹¹

Advocates of net neutrality worried that certain interpretations of these loosely written exceptions would have allowed for “fast lanes,” “zero-rating,” and “traffic management,” all of which allow certain internet traffic to be prioritized over others.⁹²

If telecommunications companies could continue to prioritize certain internet traffic by justifying it with one of these three broad exceptions, the regulation would have done little to preserve net neutrality. Others have expressed concern that the promulgation of this regulation could increase internet fragmentation if interpreted in certain ways, especially when considering that certain member states may have their own, stricter regulations.⁹³

For example, the exception allowing discrimination, blocking, or throttling to “maintain the integrity of the network” seems especially broad. Consider an ISP that is having a difficult time managing the massive amounts of data being transported every month, and as a result is consistently dropping packages at random, which is significantly degrading the user experience. It seems completely reasonable that this random and frequent dropping of packages is having a negative impact on the integrity of the network. So, it would not be difficult to justify “pay for play” in this situation by prioritizing those who have paid over those who have not.

Commentators have also noted that Council Regulation 2015/2120 allows for larger loopholes than its former American FCC counterpart, and may be an open door for anti-competitive practices.⁹⁴ For example, America’s former rules allowed for “reasonable” network management but ban operators from discriminating against certain types of service.⁹⁵ In contrast, Council Regulation 2015/2120 allows discrimination against certain types of service such as video or file sharing.⁹⁶ There are two reasons for these larger loopholes that are favored by many in the European Union. First, European ISPs argue that looser net neutrality rules would allow them to

90. Council Reg. 2015/2120 (EU); Toor, *supra* note 89.

91. See Council Reg. 2015/2120 (EU).

92. Toor, *supra* note 89.

93. See Scott et al., *supra* note 22, at 7; Christopher T. Marsden, *Comparative Case Studies in Implementing Net Neutrality: A Critical Analysis of Zero Rating*, 13 SCRIPTED 1, 27–28 (May 2016).

94. See *A Multi-Speed Europe*, *supra* note 40.

95. *Id.*

96. *Id.*

introduce new services, allowing them to raise the money they need to improve their networks.⁹⁷ Second, these rules would allow them to charge American online firms (like Google) for using their networks.⁹⁸ This second reason is unsurprising and may indeed be a large motivator for many of the regulations implemented by the European Union, as the European Union and Google have a particularly poor relationship.⁹⁹

1. Explanation and Implementation by BEREC

In August of 2016, the Body of European Regulators for Electronic Communications (BEREC) published the “BEREC Guidelines on the Implementation by National Regulators of European Net Neutrality Rules” in an attempt to close or reduce in size certain loopholes of Council Regulation 2015/2120.¹⁰⁰ The BEREC guidelines are for National Regulatory Authorities (NRAs) to take into account when implementing the rules of Council Regulation 2015/2120 and assessing specific cases.¹⁰¹ BEREC’s guidelines largely sought to clarify and limit the three exceptions provided in the Regulation, strengthening the EU’s stance on net neutrality.

The guidelines seek to clarify the portion of Council Regulation 2015/2120 which provides that ISPs are prohibited from blocking, throttling, or discriminating against internet traffic with three exceptions: in order to comply with legal obligations, in order to maintain the integrity of the work, and in order to manage congestion in extreme and temporary situations.¹⁰² Regarding these exceptions, BEREC states that “the traffic management

97. *Id.*

98. *Id.*

99. See generally, Mark Scott, *Google Fined Record \$2.7 Billion in E.U. Antitrust Ruling*, N.Y. TIMES (June 27, 2017), https://www.nytimes.com/2017/06/27/technology/eu-google-fine.html?_r=0 [<https://perma.cc/R7JU-VDFJ>] (providing example of large fine contributing to why the European Union and Google have a particularly poor relationship); Mark Scott et al., *With Record Antitrust Fine, Europe Lands Blow Against Google*, POLITICO (July 19, 2018, 1:50 PM), <https://www.politico.eu/article/google-to-be-fined-e4-3-billion-in-android-antitrust-decision-2/> [<https://perma.cc/XPG6-2DW9>].

100. See *BEREC Guidelines on the Implementation by National Regulators of European Net Neutrality Rules*, BODY OF EUROPEAN REGULATORS FOR ELEC. COMM’NS BoR (16) 127 (Aug. 30, 2016), https://berec.europa.eu/eng/document_register/subject_matter/berec/download/0/6160-berec-guidelines-on-the-implementation-b_0.pdf [<https://perma.cc/UQ6V-KVRL>] [hereinafter *BEREC Guidelines*].

101. *BEREC Launches Net Neutrality Guidelines*, BEREC (Aug. 30, 2016), http://berec.europa.eu/eng/news_and_publications/whats_new/3958-launch-of-the-berec-net-neutrality-guidelines.

102. See *BEREC Guidelines*, *supra* note 100, at 19–24.

measure has to be necessary for the achievement of the respective exception . . . and that it may be applied ‘only for as long as necessary.’”¹⁰³

The BEREC guidelines also specifically address the creation of fast lanes for specialized services and the allowance of zero-rating. BEREC provides examples of what is considered a specialized service, including VoLTE¹⁰⁴ and real time health services.¹⁰⁵ The guidelines also note that given that new specialized services may emerge in the future, National Regulatory Associations (NRAs) should assess whether unrecognized services may qualify as a specialized service on a case by case basis.¹⁰⁶

The BEREC guidelines state that zero-rating is not allowed in situations “where all applications are blocked (or slowed down) once the data cap is reached except for the zero-rated application(s).”¹⁰⁷ The BEREC guidelines also acknowledge that generally:

[w]hen assessing whether an ISP limits the exercise of rights of end-users, NRAs should consider to what extent end-users’ choice is restricted by the agreed commercial and technical conditions or the commercial practices of the ISP. It is not the case that every factor affecting end-users’ choices should necessarily be considered to limit the exercise of end-users’ rights.¹⁰⁸

While the BEREC guidelines do clarify Council Regulation 2015/2120, they do not close all loopholes in the Regulation. Zero-rating may still be allowed in certain instances and treating certain services as specialized services still seems ill-defined. The regulations appear to still give NRAs the ability to broadly interpret the regulation, and it seems particularly likely that the Regulation could be interpreted inconsistently across the EU, considering the BEREC guidelines allow for a lot of interpretation on a case by case basis by individual NRAs. This inconsistent application of Council Regulation 2015/2120 could lead to internet fragmentation across the European Union.

103. *Id.* at 20.

104. “VoLTE” stands for voice over LTE, and are voice calls over 4G LTE rather than 2G or 3G. 4G LTE is typically thought of as being used for downloading, streaming, and web browsing, but can also be used to increase the quality of voice calls. *What is VoLTE?*, 4G, <https://www.4g.co.uk/what-is-volte/> [<https://perma.cc/62XD-59SZ>].

105. *BEREC Guidelines*, *supra* note 100, at 27.

106. *Id.* at 26–27.

107. *Id.* at 11.

108. *Id.* at 12.

B. European Union Antitrust Policy

European antitrust policy developed from two rules set out in the Treaty on the Functioning of the European Union (TFEU).¹⁰⁹ The purpose of the TFEU is to provide a “single internal market with free movement of goods and services throughout the European Union.”¹¹⁰ To do this, TFEU includes rules to safeguard against cartels, anti-competitive agreements, and abuses of market power, among other things.¹¹¹

The rules, set out in Articles 101 and 102, are fairly standard in terms of antitrust law. Article 101 prohibits any agreement or concerted practice made between two or more independent businesses which restricts competition, covering both horizontal and vertical agreements; Article 102 prohibits firms that hold a dominant position in a given market from abusing that power through unfair pricing, limiting production, or refusing to innovate.¹¹² More specifically, Article 101 prohibits agreements between businesses that have the objective or effect of restricting competition, for example, by including exclusive dealing provisions.¹¹³ However, an agreement will only violate Article 101 if it affects trade *between* member states; if there is no effect on trade between member states, then it is an issue for the national competition rules of each member state.¹¹⁴ As a general rule, under Article 102, a company is unlikely to be dominant if it has a market share of less than forty percent.¹¹⁵

As punishment for these violations, the European Union can levy fines of up to ten percent of a company’s global annual turnover.¹¹⁶ The European Union does not seem shy about using these policies to punish companies who are in violation of the rules. Using Article 102 as its lens, the European Union has taken an unfavorable view of Silicon Valley in particular,

109. See Consolidated Version of the Treaty on the Functioning of the European Union arts. 101-02, Oct. 26, 2012, 2012 O.J. (C 326) 47 [hereinafter TFEU].

110. *An Overview of the EU Competition Rules*, SLAUGHTER AND MAY, 1 (June 2016), <https://www.slaughterandmay.com/media/64569/an-overview-of-the-eu-competition-rules.pdf> [<https://perma.cc/D92X-EL5J>].

111. *Id.*

112. TFEU, *supra* note 109, arts. 101–02.

113. *An Overview of the EU Competition Rules*, *supra* note 110, at 1.

114. *Id.* at 8.

115. *Id.* at 14. These market shares must be defined by the relevant product market, and therefore are subject to change, and may represent a local, national, international, or global market share. *Id.*

116. *Id.* at 2.

levying fines on American tech companies.¹¹⁷ Google was recently fined \$2.7 billion for an Article 102 violation, Intel was fined \$1.2 billion in 2009,¹¹⁸ and Microsoft has received multiple fines adding up to \$2.5 billion resulting from antitrust violations.¹¹⁹ Part of why these fines may seem so high is that the American companies have large revenues; hence, fines levied against European Companies would likely be smaller because of the size of their revenues.

IV. THE STARTUP MARKET IN THE EU

In the United States, there is a vibrant and powerful technology startup market; entry barriers are relatively low and business formation is robust in comparison with other countries.¹²⁰ This works to balance the telecommunications industry in debates over net neutrality.¹²¹ Companies like Google, Facebook, Netflix, and Reddit have continuously engaged in the debate, mobilizing users and acting as advocates for net neutrality.¹²² However, this balancing force of European technology startups in the European Union is lacking, as many of the most popular tech companies in Europe are American, and many telecommunications companies in the European Union have strong and amicable relationships with their respective governments.¹²³ Furthermore, it is difficult to find European tech companies and startups that have anywhere near as much name recognition and power as the American giants of Silicon Valley. Perhaps some of the most well-known European tech companies of recent years include Spotify, a

117. See, e.g., Ivana Kottasova, *EU Slaps Google with Record \$2.7 Billion Fine*, CNN (June 27, 2017, 9:24 AM), <http://money.cnn.com/2017/06/27/technology/business/google-eu-antitrust-fine/index.html> [<https://perma.cc/8SXJ-3E9V>].

118. *Id.*

119. Stephen Castle & David Jolly, *Europe Fines Microsoft \$1.3 Billion*, N.Y. TIMES (Feb. 28, 2008), <https://www.nytimes.com/2008/02/28/business/worldbusiness/28msoft.html> [<http://perma.cc/L8V9-HRFT>].

120. See, e.g., James Pethokoukis, *Why Does the US Generate More Fast-Growing Tech Startups than Europe?*, AM. ENTER. INST.: AEIDEAS (July 10, 2015 11:41 AM), <http://www.aei.org/publication/why-does-the-us-generate-more-fast-growing-tech-startups-than-europe/>; Ryan Law, *The Valley vs the World: How Startup Funding Varies by Country*, MEDIUM: SAAS GROWTH BLOG (Sept. 4, 2017), <https://medium.com/the-saas-growth-blog/the-valley-vs-the-world-how-startup-funding-varies-by-country-66677b88f7a3> [<https://perma.cc/D675-GJYE>].

121. Scott et al., *supra* note 22, at 7.

122. Klint Finley, *The Who's Who of Net Neutrality's 'Day of Action'*, WIRED (July 11, 2017, 08:30 PM), <https://www.wired.com/story/the-whos-who-of-net-neutralitys-day-of-action/> [<https://perma.cc/8SXJ-3E9V>].

123. See Scott et al., *supra* note 22, at 7.

Swedish company, Sound Cloud from Germany, and Angry Birds from Finland.¹²⁴

Without discrediting these companies, it seems obvious that none of them come close to wielding the power and influence of a company like Google.¹²⁵ To illustrate this, consider some statistics on Google and Spotify: Google currently has around 1.17 billion users globally,¹²⁶ while Spotify has 100 million;¹²⁷ Google is now considered the world's most valuable brand with a monetary value of \$109.5 billion;¹²⁸ Spotify is valued around \$16 billion dollars.¹²⁹ Consider also what the best known European tech companies do, versus their American counterparts. Spotify is a music streaming service, Sound Cloud allows users to upload and share their originally created music, and Angry Birds is an iPhone game. Conversely, service providers like Facebook, Twitter, and Google shape what content individual users have access to and consume, such as the news they read or the products that are advertised to them through these platforms.

The European Union seemingly lacks tech companies with the same economic and market power and overall influence on the individual. In addition, while all are located in Europe, these companies are not centralized; they are located in different cities across different countries. In the United States, Silicon Valley is the mothership for all things tech, housing ninety-nine companies with market values of over \$1 billion.¹³⁰ While it seems like not having “giants” such as Google and Facebook would lead to greater innovation, the market share of European startups is likely to be smaller

124. See Robin Wauters, *Really, So the Only European Tech Companies You Know are Skype and Spotify? Here's Another 120 for You*, TECH.EU <http://tech.eu/features/186/ignorance-is-remiss/> [<https://perma.cc/QD2R-KY89>].

125. See Rahman, *supra* note 66.

126. Felix Richter, *1.17 Billion People Use Google Search*, STATISTA (Feb. 12, 2013), <https://www.statista.com/chart/899/unique-users-of-search-engines-in-december-2012/> [<http://perma.cc/ZRX8-N8ZP>].

127. Zac Hall, *Spotify Now Has 100M Users, But Only Twice as Many Paid Customers as Apple Music*, 9TO5MAC (June 20, 2016, 9:56 AM), <https://9to5mac.com/2016/06/20/spotify-apple-music-users/> [<http://perma.cc/NNL7-B4LG>].

128. Madeleine Farber, *Google Tops Apple as the World's Most Valuable Brand*, FORTUNE (Feb. 2, 2017), <http://fortune.com/2017/02/02/google-tops-apple-brand-value/> [<http://perma.cc/JH88-FAFR>].

129. Hugh McIntyre, *Spotify May Be Valued at \$16 Million, and That Number Is Sure to Rise*, FORBES (Sept. 29, 2017, 10:45 AM), <https://www.forbes.com/sites/hughmcintyre/2017/09/29/spotify-may-be-valued-at-16-billion-and-that-number-is-sure-to-rise/#adb348722592> [<http://perma.cc/7K58-88JH>].

130. *Silicon Valley by Numbers*, SILICON VALLEY NEWS (Aug. 1, 2015), <https://silicon-valley-news.com/2015/08/01/silicon-valley-by-numbers/> [<http://perma.cc/RE48-NR59>].

and appear to have less of a market force helping to drive their success.¹³¹ Furthermore, Silicon Valley is also home to a large number of incubators, which are cooperative programs meant to help new startups to succeed by helping entrepreneurs solve many of the challenges associated with running a startup by providing workspace, seed funding, and mentoring.¹³² Silicon Valley is literally breeding entrepreneurship and innovation.

The European Union is actively trying to bolster its place in the startup market through government programs. The European Union Commission, through its initiative, Startup EU, intends to boost the startup industry in the European Union, as Startup EU “ramps up the connected Digital Single Market through a set of EU initiatives to increase networking opportunities for startups, investors and accelerators. This thriving ecosystem multiplies jobs, growth and investment.”¹³³

V. THE INTERACTION OF EUROPEAN UNION REGULATIONS AND THE EUROPEAN UNION STARTUP MARKET

Internet traffic is estimated to be growing globally by an estimated twenty-two percent per year.¹³⁴ ISPs are already having difficulty managing the current traffic, which is composed of existing technologies and users. So, if nothing changes, and if people are inventing new technologies (which will create more data packages to be transferred and more users brought in by these new platforms) there isn't going to be room for them.¹³⁵ Everything is beginning to transform into a technology that creates digital traffic: your car will be autonomous, you already track your fitness through a Fitbit, and surgeries will be performed remotely.¹³⁶ Not having enough room on the internet for these technologies and the rapidly developing new innovations seems likely to create a problem. Because of this challenge, it seems inevitable that some content will have to be prioritized; ISPs will favor content providers paying the premiums and their own content. The

131. See James Heskett, *Is It Time To Break Up Amazon, Apple, Facebook, or Google?*, HARV. BUS. SCH. WORKING KNOWLEDGE (Dec. 6, 2017), <https://hbswk.hbs.edu/item/is-it-time-to-break-up-amazon-apple-facebook-or-google?cid=wk-rss> [<http://perma.cc/J2W2-MSNA>]; Olivia Solon, *As Tech Companies Get Richer, Is It 'Game Over' for Startups?*, GUARDIAN (Oct. 20, 2017, 5:00 AM), <https://www.theguardian.com/technology/2017/oct/20/tech-startups-facebook-amazon-google-apple> [<http://perma.cc/N7PM-TJLL>].

132. Nicole Willson, *What is a Startup Incubator?*, TOP MBA (May 9, 2012, 1:00 AM), <https://www.topmba.com/blog/what-startup-incubator> [<http://perma.cc/9N4V-8PFC>].

133. *Startup Europe*, EUROPA, <https://ec.europa.eu/digital-single-market/en/startup-europe> [<http://perma.cc/9S8A-4UBA>] (last updated Sept. 11, 2014).

134. Hecht, *supra* note 25.

135. See *id.*

136. *Id.*

only way to avoid this possibility is through increasing capacity and strict interpretation of the regulations currently in place.

A. Internet Fragmentation: Applied

Council Regulation 2015/2120 and its BEREC guidelines do not totally abolish internet fragmentation. Indeed, the BEREC guidelines suggest that the experience for some users may be different than that of the experience of others, which is the precise meaning of internet fragmentation.¹³⁷ Many observers, critics and proponents of net neutrality alike, recognize there can be an “integral linkage between non-neutral treatment and internet fragmentation.”¹³⁸ An ISP might interfere with traffic to or from a particular destination to make that access or content unsatisfactory so that a user might be more compelled to use an application provided by the ISP or those favored by the ISP.¹³⁹ It seems that if some content providers lose the ability to easily reach customers, it will likely increase the levels of fragmentation in informational markets and the public spheres of ideas on the internet.¹⁴⁰ In addition, NRAs are allowed to use their individual discretion in many instances, judging impacts of fragmentation on a case by case basis.¹⁴¹ This will inevitably lead to inconsistent application of the Regulation and of the BEREC guidelines, furthering any possible fragmentation.

Fragmentation could increase barriers of market entry for new innovative startups in the European Union that seek to challenge Silicon Valley giants.¹⁴² European companies will have weakened incentives for robust infrastructure and high barriers to enter pay-for-play delivery markets; such trends will favor American companies with existing market power.¹⁴³ Pay-for-play makes it highly likely that trend of monopolization will continue. Further, many in the EU feel that the ability to charge for pay for play will take down Silicon Valley giants.

This seems counterintuitive. The more likely result of pay-for-play is that monetizing congestion will lock the monopolies into the market; if

137. *BEREC Guidelines*, *supra* note 100, at 4 (stating that NRAs should consider that equal treatment does not necessarily imply that all end-users will experience the same network performance or quality of service).

138. Drake et al., *supra* note 49, at 51.

139. *Id.*

140. *Id.* at 52.

141. *BEREC Guidelines*, *supra* note 100, at 26–27.

142. Scott et al., *supra* note 22, at 1.

143. *Id.* at 8.

large sums of liquid capital are required to buy prioritized treatment, the largest players have an enormous advantage.¹⁴⁴ Monopolists will also want to then further raise barriers of entry for the fast lane in order to further disadvantage potential competitors.¹⁴⁵ If large American companies are able to participate in a pay-for-play type of environment, there will be little room for newer, smaller European companies.

B. Zero Rating: Applied

As discussed above, zero-rating is an exception to consumer's data limits, allowing people to access particular content without eating into their monthly data allowance. The prospect of being able to access certain content or applications without using any of your monthly data certainly sounds appealing, and in fact can provide benefits in developing countries, allowing people to have free access to content. However, zero-rating is a practice commonly identified as a threat to net neutrality.¹⁴⁶ If the entire principle behind net neutrality is to treat all content, sites, and platforms equally, regardless of sender or receiver, allowing users unlimited access to certain applications or websites and not others certainly seems to violate this principle.

For example, Facebook's Internet.org was created to give users in developing countries such as Zambia, India, and Indonesia access to content without counting against the user's data.¹⁴⁷ However, the content available through Internet.org is curated by Facebook; users can only access content that Facebook has made agreements with.¹⁴⁸ It is not hard to imagine that Facebook will choose to limit potential competitors, building brand loyalty and disallowing market entry to new startups.

Council Regulation 2015/2120 does not completely close the door on zero-rating. The guidelines do prohibit zero-rating "where all applications are blocked or slowed [except for the zero-rated applications] once the data cap is reached."¹⁴⁹ But, BEREC has interpreted that zero-rating practices should be assessed on a case-by-case basis, acknowledging that it is not always clear cut.¹⁵⁰ ISPs, in a particular case, may be able to make their arguments in favor of zero-rating based on factors such as market share of the ISP and scale of the practice.¹⁵¹ In addition, while the guidelines seem

144. *See id.*

145. *Id.*

146. BDK ADVOKATI, *supra* note 80.

147. Rossini & Moore, *supra* note 82, at 8.

148. *Id.*

149. Toor, *supra* note 89.

150. *Id.*

151. *Id.*

generally opposed to zero-rating, they do provide that an ISP may offer zero-rating to an entire category of applications. With such a loose standard, it seems likely that it will be fairly easy for ISPs to continue zero-rating if they choose to do so.

C. Convergence of European Union Net Neutrality Regulations and Antitrust Policy

Because of the intermingling of the purposes of antitrust and net neutrality regulations, it is important to examine how the regulations in the European Union concerning both will interact. If seeking to maintain competitive practices in the European Union startup community, it is vital the Council Regulation 2015/2120 allow for Articles 101 and 102 to be followed. Considering the economic implications of net neutrality, it is easily understood as an antitrust issue.

To complete this analysis, it is important to remember the key considerations of the European Union's antitrust policy and the exceptions, and areas of strength and weakness in Regulation (EU) 2015/2120. As stated above, Article 101 prohibits agreements which restrict competition, covering both horizontal and vertical agreements; Article 102 of the Treaty prohibits firms that hold a dominant position in a given market from abusing that power through unfair pricing, limiting production, or refusing to innovate.¹⁵²

As discussed above, Regulation (EU) 2015/2120 does not allow ISPs to block, throttle, or discriminate against internet traffic with three exceptions: in order to comply with legal obligations, in order to maintain the integrity of the work, and in order to manage congestion in extreme and temporary situations.¹⁵³ The regulation also includes a provision that allows ISPs to create fast lanes for specialized services, and another provision that allows for zero-rating.¹⁵⁴ The BEREC guidelines states that "the traffic management measure has to be necessary for the achievement of the respective exception . . . and that it may be applied 'only for as long as necessary'."¹⁵⁵ The BEREC guidelines also provide examples of specialized services. The BEREC guidelines also state that zero-rating it is not permitted "where all applications are blocked (or slowed down) once the data cap is reached

152. Treaty on the Functioning of the European Union 326/47, art. 101 (2012); Treaty on the Functioning of the European Union 326/47, art. 102 (2012).

153. Council Regulation 2015/2120; Toor, *supra* note 89.

154. Council Regulation 2015/2120.

155. *BEREC*, *supra* note 91.

except for the zero-rated application(s).”¹⁵⁶ The BEREC guidelines also acknowledge that when an ISP does limit the exercise rights of end-users, “NRAs should consider to what extent end-users’ choice is restricted by the agreed commercial and technical conditions or the commercial practices of the ISP. It is not the case that every factor affecting end-users’ choices should necessarily be considered to limit the exercise of end-users’ rights.”¹⁵⁷ The guidelines also generally allow the NRAs to exercise their own judgement on a case by case basis, recognizing that not all areas will be clear cut.¹⁵⁸

If ISPs are still allowed to block, throttle, or discriminate against content so long as they stay within the confines of the three exceptions, and only may do so “for as long as necessary,” it is likely that there is still a large area for ISPs to block, throttle, or discriminate. If this behavior is allowed or tolerated, it will run counter to anticompetitive law. Article 102 prohibits firms that hold a dominant position in a given market from abusing that power through unfair pricing, limiting production, or refusing to innovate.¹⁵⁹ A large ISP using their position to block, throttle, or discriminate against certain content runs parallel to the behavior prohibited in Article 102.

Zero-rating is also a problematic practice, not only under the actual antitrust rules, but also when viewed under the lens of antitrust *policy*. Zero-rating allows the favored content to operate at a competitive advantage relative to its rivals with respect to the quality of the service provided when using that content.¹⁶⁰ Furthermore, when an ISP favors one content provider, the primary affect is to shift usage towards the favored content and away from others.¹⁶¹ This behavior seems inherently inconsistent with antitrust policy. If the European Union truly wants to preserve net neutrality and competitive practices, it is essential that it eliminate blocking, throttling, content discrimination, and zero-rating in all instances, as allowing these behaviors to remain is inconsistent with the policy behind Articles 101 and 102.

VI. THE REALITY OF COUNCIL REGULATION 2015/2120

There has been speculation about how Council Regulation 2015/2120 would play out in its application. Having been around for just over two years, the realities of the regulation are beginning to show, and it seems the rules have mostly helped to prevent bad behavior by the ISPs. However,

156. *Id.*

157. *Id.*

158. *Id.*

159. TFEU, *supra* note 109, arts. 101–02.

160. Singer, *supra* note 67, at 2.

161. *Id.*

there are some examples of questionable practices. The most salient illustrations are events that have occurred in Portugal, Sweden, and Germany.

Prior to the repeal of net neutrality in the United States, American Congressman Ro Khana of California tweeted a screenshot from a Portuguese mobile carrier called Meo.¹⁶²

In his tweet, Khana wanted to show Americans what data usage would look like with “no net neutrality.”¹⁶³ While Khana was incorrect in that there is no net neutrality in Portugal, as Council Regulation 2015/2120 applies in Portugal, his tweet accurately highlights one of the Regulation’s major problems: it allows zero-rating. Clearly, Meo is zero-rating; according to their mobile data plans, you can choose to purchase a package that includes certain apps that will not count towards your monthly data usage,¹⁶⁴ which blatantly favors certain apps over others.¹⁶⁵ If a new social media app wants to disrupt the market, it is likely they will have to pay a hefty fee to Meo to have their app included in one of the zero-rated packages.

The same situation unfolded in Sweden in the spring of 2016.¹⁶⁶ Sweden’s largest telecom provider, Telia Company AB, offered potential customers unlimited access on to apps such as Facebook, Spotify, and Instagram; once a user’s data limit was met, Telia would restrict certain apps, but not those included in the deal.¹⁶⁷ Regulators in Sweden tried to stop Telia from offering this deal, claiming it violates Council Regulation 2015/2120.¹⁶⁸ However, the issue is working its way through the courts, and the deal is currently still available.¹⁶⁹

162. Ro Khanna (@RoKhanna), TWITTER (Oct. 26, 2017, 5:04 PM), <https://twitter.com/rokhanna/status/923701871092441088?lang=en> [<https://perma.cc/68AX-977K>].

163. *Id.*

164. *Mobile Phone Packages*, MEO, <https://www.meo.pt/internet/internet-movel/telemovel/pacotes-com-telemovel> [<http://perma.cc/5ML7-46BU>].

165. April Glaser, *What Will an Internet Without Net Neutrality Be Like?*, SLATE (Dec. 8, 2017, 2:10 PM), http://www.slate.com/articles/technology/future_tense/2017/12/what_the_internet_is_like_in_countries_without_net_neutrality.html [<http://perma.cc/L8ND-WR8T>].

166. *Roam Like Home Makes People Use More Mobile Data Traveling That at Home*, TELIA COMPANY (Jan. 25, 2017), <https://www.teliacompany.com/en/news/news-articles/2017/roam-like-home-estonia/> [<https://perma.cc/LJ72-BV8D>].

167. Liz Alderman & Amie Tsang, *Net Neutrality’s Holes in Europe May Offer Peek at Future in U.S.*, N.Y. TIMES (Dec. 10, 2017), <https://www.nytimes.com/2017/12/10/business/net-neutrality-europe-fcc.html> [<https://perma.cc/S43X-H5D9>].

168. *Id.*

169. *Id.*

In Germany, telecommunications provider Deutsche Telekom offered a service called StreamOn, which allows users to have unlimited access to music and videos from specified partners, like Netflix.¹⁷⁰ After approval of the deal by Germany's telecom regulator, consumer activists were quick to criticize it, causing Deutsche Telekom to expand the offer to include around 50 partners.¹⁷¹

The agreements between the different telecom companies and the partner apps are clear instances of zero-rating. The BEREC guidelines to Council Regulation 2015/2120 state that zero-rating is not allowed in situations “where all applications are blocked (or slowed down) once the data cap is reached except for the zero-rated application(s).”¹⁷² It seems that Telia is doing exactly this, slowing down other applications once the data limit is reached besides the zero-rated applications. Meo and Deutsche Telekom may not slow down other apps, but they are still favoring some apps over others and engaging in zero-rating.

In addition to possibly being violations of Council Regulation 2015/2120, and setting aside for a moment the requirement that the agreements cause disruption between member states, it is arguable that the practices of Meo in Portugal, Telia in Sweden, and Deutsche Telekom in Germany are violations of European Union antitrust laws, including Articles 101 and 102. Article 101 prohibits agreements which restrict competition, covering both horizontal and vertical agreements; Article 102 prohibits firms that hold a dominant position in a given market from abusing that power through unfair pricing, limiting production, or refusing to innovate.¹⁷³ The agreements between the telecommunication companies and the preferred apps or websites are easily interpreted vertical agreements that restrict competition. Meo, Telia, and Deutsche Telekom are giving favorable positions to certain apps over others, as consumers will be more likely to use apps that are in their plans, than new apps attempting to enter the market. This is an anti-competitive practice, with the mobile carriers and apps or websites acting in concert as a cartel.

VII. PROPOSED SOLUTION

Council Regulation 2015/2120 and its BEREC guidelines are a step in the right direction. The regulation and guidelines certainly minimize the opportunity for ISPs to discriminate against content and violate the principles of net neutrality. However, there are areas for improvement in

170. *Id.*

171. *Id.*

172. *See BEREC Guidelines, supra* note 100, at 11.

173. TFEU, *supra* note 109, arts. 101–02.

these regulations if they wish to enable new entrants to the internet startup market. In order to do this, loopholes need to be closed, European Union antitrust law should be updated to encompass violations of net neutrality, and it should eliminate the requirement under Article 101 that the disruption must occur between member states. Finally, the European Union needs to treat the internet more like a public utility and accommodate the growth in internet traffic by increasing the network capacity; this should be undertaken by the appropriate government entities, rather than by private companies.

The regulations must be written in such a way that will close the loopholes relating to the three exceptions, make implementation by the NRAs less subjective so as to avoid internet fragmentation, and not allow for zero-rating under any circumstance. It is clear that zero-rating is happening in the European Union, as evidenced by Portugal, Sweden, and Germany. Currently, zero-rating seems to be allowed by Council Regulation 2015/2120 so long as the non-zero-rated apps are not intentionally slowed. This exception should be eliminated from the regulation, and zero-rating should not be tolerated under any circumstances. If zero-rating is allowed to continue, it will likely further fragmentation, as certain member states may allow it in some capacity, and others will disallow it completely. Therefore, the European Union must remove it in its entirety, EU wide, so as to limit fragmentation. It is important to note that many of the zero-rated applications are American companies. Therefore, in allowing telecommunications companies to continue to zero-rate, they are favoring American companies over European ones, making it more difficult for a European startup to gain ground in the market.

Articles 101 and 102, relating to antitrust regulation, were not written to deal with the problems presented by modern technology and should therefore be rewritten to accommodate for the development of modern issues. Net neutrality violations are kept separate from antitrust violations, and it has yet to be shown that Council Regulation 2015/2120 will have any real teeth. However, European antitrust laws allow for up to a ten percent fine of a company's global annual turnover,¹⁷⁴ and it has been shown that the European Union is not afraid to impose these (sometimes) massive fines.¹⁷⁵ If the European Union integrated its antitrust and net neutrality laws, not only would this make violations a more serious offense by allowing the

174. *Id.*

175. *See, e.g.,* Kottasova, *supra* note 117.

ten percent fine, it would also help to guard against the problems they both attempt to regulate.

Generally, the goal of both antitrust and net neutrality laws is to avoid monopolistic behavior and decrease barriers to market entry. If blocking, throttling, or discriminating against content on the internet were treated as an antitrust violation, it would help to further the desired outcome. In addition, an agreement to engage in anti-competitive behavior will only be caught by the antitrust regulations if it restricts or distorts competition between member states. It is understandable that the European Union seeks only to regulate interactions between the member states, not to interfere with internal affairs of the member states. However, if the European Union truly wants the effects of Council Regulation 2015/2120 to be felt in each individual member state, they must do away with the requirement that the anti-competitive agreements restrict or distort trade between member states. Instead, they should inquire whether or not the agreement restricts or distorts competition for the consumers and potential market entrants.

Even if the European Union closes the loopholes of Regulation (EU) 2015/2120 and aligns its net neutrality goals with its antitrust regulations, internet usage is growing and the issue of capacity must be addressed. As discussed above, the method of dealing with congestion favored by proponents of net neutrality is to accommodate the growth in traffic by increasing the network capacity. Currently, the endeavor is being taken on by the private sector. Private companies such as Google, Facebook, Microsoft, and ISPs¹⁷⁶ are spending billions of dollars to lay fiber-optic cables that stretch across the globe.¹⁷⁷ To cover these costs, the ISPs can either charge consumers or charge the companies using more of the network, which would likely cause companies to pass the cost on to the consumer.¹⁷⁸ However, the infrastructure and physical capacity of the internet should be viewed as a public issue for the government to address. In developed countries, the internet is arguably used as much as public roads, electricity, or plumbing. Each of those is at least in part handled by governmental bodies. The internet should be treated in the same manner, as it has become an essential public good. While this would still ultimately cost individuals, it would cost them as citizens, not consumers. This in turn would take away any advantage that incumbent firms may have over startups, and delegate the costs to the government.

176. See Forbes, *supra* note 41.

177. See Hecht, *supra* note 25.

178. Forbes, *supra* note 41.

VIII. CONCLUSION: WHY DOES THIS MATTER?

A website called Internetlivestats.com tracks the number of internet users at any one time.¹⁷⁹ As this sentence was being written, there were over 3.8 billion internet users in that moment, around nineteen percent of which were located in Europe.¹⁸⁰ Just over twenty years ago, only one percent of the world's population had an internet connection; today around forty percent have an internet connection.¹⁸¹ In 2016, the United Nations adopted Resolution A/HRC/32/L.20, which declared that online freedom is a human right that must be protected, and stressed the importance of “applying a human rights-based approach when providing and expanding access to the [i]nternet and for the [i]nternet to be open, accessible and nurtured”¹⁸² It is evident that the internet has become a basic part of people's lives, and that open and equal access to it is essential.

People are using the internet more than ever before: to do more things, in more ways, and on more devices. They use social media and search engines not only to connect with friends and family, but to inform themselves on everything from the best banana bread recipe, to the most trustworthy electrician in their city, to the Paris climate accord, and the Syrian refugee crisis. Therefore, the companies providing this information to users have a great responsibility, as it is shaping the opinions and worldviews of literally billions of people in a single instant. Now, more than ever, it is essential to ensure that new and divergent ways of doing things are able to enter the market.

Because of this, it is important to foster competition to allow people to devise better ideas and alternatives to the way we do things currently. The incumbent firms did not have to worry about their content being degraded or blocked if they didn't pay fees. But now, startups are legitimately concerned that they will be unable to compete in this market, as they will be unable to pay the ISPs.¹⁸³ Thus, net neutrality must be preserved, and no favor should be given to those that can afford to pay over those who cannot.

179. *Internet Users*, INTERNET LIVE STATS, <http://www.internetlivestats.com/internet-users/#> [<https://perma.cc/SS7X-LCNK>].

180. *Id.*

181. *Id.*

182. Human Rights Council Res. U.N. Doc. A/HRC/32/L.20, art 3 (June 27, 2016).

183. *See* Vincent, *supra* note 15.

