WOULD JOHN RAWLS SUPPORT OR REJECT NET NEUTRALITY?

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ABSTRACT
This paper examines net neutrality with respect to John Rawls’ principles of greatest liberty and equality. According to Rawls, a government can restrict liberty for the sake of liberty. The paper examines seven arguments in favor of net neutrality, including competition and innovation, data control, the end-to-end principle, preventing pseudo services, preserving standards of the Internet, the rights and freedoms in a digital world, and user prejudice against slow loading websites, arguing that Rawls would support these arguments. The essay discusses eight arguments against net neutrality, including counterweight to the non-neutrality of servers, discouraging competition, Internet traffic not allocated efficiently, Internet access not available to the poor, investment reductions, possible increases in taxes, significant growth in investment competition, and unnecessary regulations. It is projected that Rawls would be opposed to these arguments. The article concludes by stating that Rawls would change the positions argued in this paper if the reasons presented by net neutrality opponents were logical, convincing, and maximized the benefits to the least advantaged. The paper suggests that Rawls would conclude that net neutrality is a fair and reasonable mechanism to help the poor, or in some sense, where the highest good goes to the highest number.

INTRODUCTION
This paper is subdivided into eight sections. The first section defines net neutrality and outlines the principles of net neutrality. The second section provides a short history of net neutrality and how the Internet has evolved in a short period. The third section offers seven arguments that favor net neutrality. The fourth section lists five different ways that net neutrality can be violated. The fifth section gives eight counterarguments, arguing that net neutrality has significant economic disadvantages. The “sixth” briefly highlights Rawls’ position on liberty. This seems to be the natural place to introduce Rawls’ philosophy. In the seventh section, the essay attempts to interweave Rawls’ philosophy with the arguments for and against net neutrality. Finally, the eighth section concludes the essay, offering additional insights and comments regarding this controversial topic.

DEFINITION OF NET NEUTRALITY
According to the Merriam-Webster’s Dictionary, net neutrality is “the idea, principle, or requirement that Internet service providers should or must treat all Internet data as the same regardless of its kind, source, or destination.” According to the principles of net neutrality, Internet services providers cannot discriminate or charge different fees based on user, content, website, platform, application, type of equipment attached, or communication method. For example, under net neutrality, Internet service providers could not intentionally block, slow down, or charge a premium for displaying particular websites and online content. The regulations are known as “common carrier” regulations. However, Internet service providers are

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3 Id.

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permitted to sell opt-in/opt-out to their customers. Filtering sensitive content for minors can also be achieved under net neutrality rules. The idea behind net neutrality rules is to protect against misuse.

The term “net neutrality” was created in 2003 by Tim Wu, at that time, a University of Virginia law professor. The idea behind the term was to extend the notion of a common carrier, much like how telephone systems are characterized. Some principles that are related to net neutrality include:

**Device neutrality** – Under this device-neutrality principle, a user should be able to choose or remove applications of their choosing;

**Dumb pipe** – The term refers to a network where there is little or no control or management regarding how users employ the network;

**End-to-end principle** – Under this principle, a communications protocol operation should occur either at the end-points of a communication system or as close to the resources being employed as possible;

**Open Internet** – All of the Internet resources should be effortlessly available to individuals, companies, and other organizations;

**Over-provisioning** – Here, a network should have more bandwidth than the data that is entering the system; and

**Traffic shaping** – The idea behind traffic shaping is to optimize performance, decrease Internet response times or latency, and increase bandwidth by delaying the transmission of packets under some circumstances.

## A SHORT HISTORY OF THE INTERNET AND NET NEUTRALITY

On October 29, 1969, the first interconnected network was established between the University of California, Los Angeles, and the Stanford Research Center. It was entitled ARPANET. In 1973, Robert Kahn of the Defense Advanced Research Projects Agency (“DARPA”), Vinton Cerf from Stanford University, and others developed the TCP/IP protocol, the foundation of the modern-day Internet.

In the 1980s, TCP/IP went global when the Organisation européenne pour la recherche nucléaire (“CERN”) installed TCP/IP to connect its computer systems and workstations. In 1994, Marc Andreessen established Netscape Communication Corp. released Netscape Navigator, its Internet browser. During the early 2000s, mobile cellular telephones provided virtual universal access to the Internet, and social media was born. All during this time, there was almost no regulation by the government of the Internet.

On April 23, 2014, *The New York Times* reported that the Federal Communications Commission (“FCC”) backed a new rule whereby Internet content providers would be given the ability by cable companies to fast-track their content. On May 15, 2014, the FCC decided that the following two options were available: (1) permit fast and slow broadband lines, abandoning net neutrality, and (2) reclassify broadband as a telecommunication service, thereby preserving net neutrality.

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5 Id.
6 Id.
7 Id.
9 Id.
17 Id.
19 This is the French name for the European Organization for Nuclear Research, commonly known as “CERN”.
COMPETITION AND INNOVATION

Advocates of net neutrality opine that if cable companies could demand premium delivery rates based on an individual’s or company’s ability to pay, the result would be an exploitative business model because Internet service providers could engage in fraudulent billing and price gouging without FCC oversight.24 By allowing ISPs to charge for access to the Internet, ISPs could block the websites of its competitors and refuse entrance to the Internet to those who were too poor to pay.35 In effect, by allowing ISPs to charge for access, the government is creating an oligopoly where the Internet would resemble cable TV where large monopolistic companies are the norm.36 For example, in 2005 when YouTube was a startup company, had it experienced the reason is capitalism, it is unlikely that the company would have been successful.37

DATA CONTROL

The proponents of net neutrality overwhelmingly want cable companies to be designated as common carriers.30 This would prevent cable companies from filtering, interrupting, or screening the content of the Internet short of a court order.39 By classifying a cable company as a common carrier, the FCC would have the legal authority to enforce net neutrality.40 In other words, the FCC would be the government agency tasked to protect net neutrality instead of it being at the mercy of the free market.31 The reason is that capitalism has a historical tendency to evolve from a competitive environment into

On February 26, 2015, the FCC decided in favor of net neutrality, applying Title II (common carrier) of the Communications Act of 1934 and Section 706 of the Telecommunications Act of 1996 to the Internet.24 On April 13, 2015, the FCC officially released its new net neutrality regulations.25 On December 14, 2017, the FCC rescinded its March 12, 2015 decision regarding its net neutrality rules.26

ARGUMENTS IN FAVOR OF NET NEUTRALITY

The arguments for net neutrality include:

- Competition and innovation;
- Data control;
- End-to-end principle;
- Preventing pseudo services;
- Preserving the standards of the Internet;
- Rights and freedoms in a digital world; and
- User prejudice against websites that load slowly.

The supporters of net neutrality include consumer advocates such as Lawrence Lessig27 and former President Barack Obama;28 human rights organizations such as the American Civil Liberties Union (“ACLU”);29 and Internet application companies such as Amazon,3 Google3; and Microsoft.31


34 Lawrence Lessig & Robert W. McChesney, supra.


36 Lawrence Lessig & Robert W. McChesney, supra.


40 Id.
monopolies. By requiring the FCC to be the guardian of net neutrality, these evolutionary market forces would remain at bay.

**END-TO-END PRINCIPLE**

For net neutrality to be useful, all content must be treated equally, moving at the same speed throughout the Internet. Under the end-to-end principle, the Internet is a “dumb network,” where there is neither intermittence nor scarcity. What this means is that the Internet remains an information highway, where the economic assumptions of scarcity do not apply. Even so, when checking inbound data for errors, there are instances of intermittence and scarcity, but the reason is technological rather than economic.

**PREVENTING PSEUDO SERVICES**

Pseudo services are violations of net neutrality that occur when cable companies leverage the quality of service to extract a competitive advantage. For example, when Netflix proclaimed that it was paying Comcast and Verizon to avoid throttling, these payments can appear to be extortion payments to achieve faster Internet speed, mainly when there is no reasonable technological reason for the slowdown.

**PRESERVING THE STANDARDS OF THE INTERNET**

There are four layers to the TCP/IP protocol, including the network access layer, the internet layer, the transport layer, and the application layer. The network access layer is the lowest layer of the TCP/IP protocol stack. It encapsulates IP packets to be transmitted and relates IP address to physical MAC addresses. The internet layer creates the IP packet which contains both the source and destination addresses. The transport layer ensures reliable transmission of the IP packets and warrants that the packets are transmitted correctly. The application layer provides network services to applications such as browsers. The application guarantees that the desired webpage appears on a user’s display.

**RIGHTS AND FREEDOMS IN A DIGITAL WORLD**

Proponents of net neutrality argue that a neutral Internet promotes free speech, which in turn fosters democratic participation of the citizenry. Fundamentally, net neutrality means that everyone has equal access to one another, independent of their ability to pay. According to the advocates of net neutrality, the Internet should not be akin to Citizens United, where the ability to speak is directly proportional to the ability to pay for the speech. In other words, net neutrality presumes that all people are equal in their ability to speak and that this fundamental First Amendment right should be the foundation of the Internet.

**USER PREJUDICE AGAINST WEBSITES THAT LOAD SLOWLY**

Like Tom Cruise’s character Maverick in the movie entitled, Top Gun, Internet users have a need for speed. Individuals

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43Id.

44Lawrence Lessig & Robert W. McChesney, supra.

45Adam Wajnberg, supra.


47Id.

48Jerome H. Saltzer, David P. Reed, & David D. Clark, supra.


51Id.


53Id.

54Id.

55Id.

56Id.

57Id.

58Id.

59Id.


61Lawrence Lessig & Robert W. McChesney, supra.

62See *Citizens United v. Federal Election Commission*, 558 U.S. 310 (2010) Here, the Court opined that the Freedom of the Press clause of the First Amendment protects associations of individuals (i.e., corporations and unions) as well as individual speakers; and that the First Amendment does not prohibit speech based on the identity of the speaker. Although not specifically stated in Citizens United, the implication of the opinion is that corporations which have deep can promote a particular point of view, usually the view of the Board of Directors or the Chief Executive Officer.

63Lawrence Lessig & Robert W. McChesney, supra.

64In the movie entitled, Top Gun, Tom Cruise’s character Maverick is riding a motor as fast has he can as fighter jet is landing in the background. As the jet is landing, Maverick boldly proclaims, “I have a need for speed.”
who become accustomed to a fast Internet have no desire to be relegated to the “slow lane.” Research indicates that as users adapt to fast Internet speeds, they become increasingly intolerant of delays. If delays were to occur because net neutrality is violated, the evidence demonstrates that people become quickly impatient. The results can be dramatic financial downturns for companies that are the victims of slow-loading websites, regardless of whether the firm is responsible for the declining performance.

Potential Net Neutrality Issues for Discrimination

Before discussing the arguments against net neutrality, it is essential to appreciate how net neutrality can be compromised. The following are the net neutrality issues involving the different types of discrimination that may occur:

1. Discrimination by internet protocol;
2. Discrimination by IP address;
3. Discrimination favoring private networks;
4. Discrimination favoring peering; and
5. Discrimination favoring fast-loading websites.

Discrimination by Internet Protocol

Discrimination by internet protocol is the act of promoting or obstructing Internet data packets based on the communication protocol being employed. The dominant Internet protocol in use today is IPv4, which is applied when accessing websites. Because of the sheer volume of the Internet websites in existence today, IPv6 was created to expand the number of Internet protocol addresses that are available. A third Internet protocol that is used by videos that are transmitted over the Internet is the UDP protocol.

In contrast to IPv4 and IPv6, the packets in the UDP protocol need not be received in the exact order in which they were sent. A fourth protocol is the FTP protocol that is used when sending and receiving files over the Internet. If the FCC permits discrimination by Internet protocol, the Internet service providers (“ISP”) can charge different transmission rates depending on which protocol is being employed.

In 2009, the FCC sued Comcast for illegally preventing customers from employing BitTorrent, a popular file-sharing program. Although Comcast did not admit any wrongdoing, the company settled for $16 million. In 2010, a U.S. Court of Appeals overturned the District Court decision, ruling for Comcast. Incredibly, in October 2011, Measurement Labs confirmed that Comcast had effectively immobilized the BitTorrent throttling procedures.

Discrimination by IP Address

Each website on the Internet either has a unique IP address, or a router temporarily assigns the IP address. A router acts as a Dynamic Host Configuration Protocol (“DHCP”) server that assigns IP, Data Name Server (“DNS”), and default gateway addresses to all computer that is connected to the machine. Some IP addresses are permanently assigned to specific websites. For example, the IP address of ABCNews.com is 199.181.132.248, while the IP address of Utica College is 72.237.4.113. These are fixed IP addresses.

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67 Id.
68 Id.
72 Id.
73 Id.
74 Id.
76 Geoff Duncan, supra.
79 Charles M. Kozierek, supra.
80 Id.
81 Id.
82 To discover the IP address of ABCNews.com or Utica.edu, one should bring up a DOS window using the “CMD” command in the Search programs and files edit box at the bottom of the Start menu. Once the DOS window appears, at the “C:” prompt, execute the command “ping www.abcsnews.com” or “ping www.utica.edu.” The IP address should immediately appear in the DOS window.
If an Internet service provider were to discriminate based on IP address, what would be accomplished is that a user would pay a higher fee for accessing one or more IP addresses or websites than the user would pay if he or she accessed another IP address or site.\textsuperscript{83} Probably for ease of billing IP addresses or websites would be classified based upon criteria established by the Internet service provider. For example, non-profit educational institutions could be one category of IP addresses or websites, online news websites (e.g., ABC News, Reuters, etc.) could be another category.

The problem with IP address discrimination occurs when Internet service providers want to promote their Internet services rather than the Internet services of their competition.\textsuperscript{84} For example, if the Internet service provider owned Fox News and it desired to promote its conservative political perspective, it could charge its customers more money if they accessed MS NBC or the Huffington Post websites, both of which have a noticeably politically liberal and progressive persuasion. The problem with IP address discrimination is that it probably violates the Sherman Anti-Trust Act as amended because such behavior by an Internet service provider could be construed to be an example of predatory pricing and unfair trade practices, both of which are illegal.\textsuperscript{85} These examples are only a few of the IP address discrimination possibilities. There are many more examples, being limited only by human creativity.

**DISCRIMINATION FAVORING PRIVATE NETWORKS**

Discrimination favoring private networks occurs when Internet service providers discriminate based on what kinds of data are counted when calculating bandwidth caps.\textsuperscript{86} For example, Comcast and Microsoft agreed that users could access televised programs through the Xfinity application on their Xbox 360 box without hitting their bandwidth limit.\textsuperscript{87} However, Comcast did not provide the same courtesy to Netflix, HBO Go, or Hulu because Comcast runs Xfinity for Xbox as a private Internet protocol network.\textsuperscript{88} When one looks back at history, this is the same behavior that John D. Rockefeller (Oil Baron) used with the help of Cornelius Vanderbilt (Railroad Baron) to starve out his competition and create the Standard Oil Trust of the late 19th Century.\textsuperscript{89}


\textsuperscript{84} Id.


\textsuperscript{87} Id.

\textsuperscript{88} Id.

\textsuperscript{89} Howard Zinn, A People's History of the United States (HarperCollins Publishers 1999).

**DISCRIMINATION FAVORING PEERING**

There is some disagreement regarding whether “peering” is a net neutrality issue.\textsuperscript{90} Peering is a voluntary interconnection whose function is to exchange data between separate networks. In what is known as “settlement-free peering,” “bill-and-keep,” or “sender-keeps-all” peering, one party does not pay another party but generates revenue from only its customers.\textsuperscript{91}

In 2014, Netflix signed an agreement with Comcast to improve its service quality by increasing transmission speeds.\textsuperscript{92} In 2013, Netflix users experienced a 25 percent drop in their connection speeds.\textsuperscript{93} After the contract was signed, Netflix users observed a 66 percent increase in performance.\textsuperscript{94} Although Netflix came to a similar arrangement with Verizon, in 2014 the connection speed for DSL users connected to Netflix dropped to less than one megabit per second.\textsuperscript{95} Netflix then displayed a message on its website indicating that users accessing Netflix via Verizon might experience very slow connection speeds.\textsuperscript{96} Verizon obtained a cease order against Netflix. As senior executive in Verizon probably had no objections to breaching the company’s contract with Netflix.

**DISCRIMINATION FAVORING FAST-LOADING WEBSITES**

Because users have little or no tolerance for slow-loading websites, when a site does not appear promptly, many individuals close the window in frustration.\textsuperscript{97} Performance is the name of the game. In 2009, Foster Research discovered that online shoppers want the website to appear instantaneously.\textsuperscript{98} Another study reported that a one-second delay in loading a site results in a 16 percent decline in customer satisfaction, in 11 percent fewer hits, and a seven percent conversion loss.\textsuperscript{99} For


\textsuperscript{92} Id.

\textsuperscript{93} Id.

\textsuperscript{94} Id.


\textsuperscript{96} Id.


\textsuperscript{98} Id.

\textsuperscript{99} Roger Dooley, Don't let a slow website kill your bottom line, Forbes, December 12, 2012,
innovative startups who are introducing new technologies, slow-loading website results in unnecessary market failure.\textsuperscript{106} The consequence is that larger and more mature organizations have a competitive advantage over their smaller counterparts because of increased Internet performance rather than because their products and services are better.\textsuperscript{107} The outcome is that the market shares of large companies are protected by collateral market forces, leaving a new entrepreneur little opportunity to succeed.\textsuperscript{108}

**ARGUMENTS AGAINST NET NEUTRALITY**

The arguments against net neutrality are typically concerned with the adverse economic consequences of net neutrality. The arguments against net neutrality include:

1. Counterweight to the non-neutrality of servers;
2. Discourages competition;
3. Internet traffic not allocated efficiently;
4. Internet access not available to the poor;
5. Investment reductions;
6. Possible increase in taxes;
7. Significant growth in investment competition; and
8. Unnecessary regulations.

The opponents of net neutrality are made up of Internet service providers and broadband telecommunication companies such as AT&T,\textsuperscript{109} Comcast,\textsuperscript{110} Time-Warner,\textsuperscript{111} and Verizon;\textsuperscript{112} computer hardware manufacturers such as Cisco,\textsuperscript{113} Intel,\textsuperscript{114} International Business Machines (“IBM”),\textsuperscript{115} and Nokia;\textsuperscript{116} economists such as the late Gary Becker,\textsuperscript{117} and other well-known economists;\textsuperscript{118} and notable technologists such as the TCP/IP inventor Bob Kahn,\textsuperscript{119} Netscape founder Marc Andreessen,\textsuperscript{120} and Sun Microsystems founder Scott McNealy.\textsuperscript{121} Some of the civil rights groups against net neutrality include the National Urban League\textsuperscript{122} and Jesse Jackson’s Rainbow/PUSH.\textsuperscript{123} These organizations feel that net neutrality harms people of color in underserved areas.\textsuperscript{124}

**COUNTERWEIGHT TO THE NON-NEUTRALITY OF SERVERS**

The argument presented by the non-neutral advocates observes that the Internet was never a level playing field.\textsuperscript{125} These individuals pointed out that big companies possessed a performance advantage when compared to smaller competitors.\textsuperscript{126} If non-net-neutrality results in reduced prices for lower access levels, then this would meet the needs of people who desire different tiers of service, thereby ensuring more equality rather than less equality.

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\textsuperscript{107} Id.

\textsuperscript{108} Id.


\textsuperscript{109} Id.


\textsuperscript{119} Id.


DISCOURAGES COMPETITION

According to small Internet service providers, net neutrality is forcing these organizations to raise prices, delay the expansion of services, or both.¹²¹ Net neutrality is anathema to small competitors because they typically have no in-house counsel, nor do they have the financial resources to purchase outside counsel. In essence, small Internet service providers see little benefit to net neutrality because under its principles, the firms cannot deliver any benefit to its customers.¹²²

INTERNET TRAFFIC NOT ALLOCATED EFFICIENTLY

The opponents of net neutrality opine that its rules encourage a misallocation of resources because critical Internet traffic must be treated the same as non-critical traffic.¹²³ This occurs when there are traffic surges, and all Internet traffic is delayed, rather than non-critical traffic, or even harmful such as spam, viruses, and worms, provided that these applications can be identified in transit before they arrive at a particular computer.¹²⁴

INTERNET ACCESS NOT AVAILABLE TO THE POOR

The opposition to net neutrality observes that net neutrality regulations thwart Internet service providers from making Internet access more affordable or free to the poor.¹²⁵ The reasoning is that low-income users cannot afford “bandwidth hogging” services such as video streams.¹²⁶ Due to net neutrality rules, ISPs cannot discriminate against Internet traffic, making Internet services regressive.¹²⁷

INVESTMENT REDUCTIONS

According to those against net neutrality, net neutrality makes it more difficult for ISPs to recoup their investments in broadband networks.¹²⁸ From a financial perspective, what this means is that discounted breakeven payback period is longer with net neutrality than without net neutrality.¹²⁹ The breakeven payback period is defined to be the number of years needed for a company to receive net discounted cash inflows that aggregate to the amount of an initial cash investment.¹³⁰ Typically, the discounted payback period calculation is performed because it takes into account the time value of money.¹³¹

According to Verizon, there is no incentive for the company to invest substantially in advanced fiber optics networks because under net neutrality the firm would be prevented from charging premium fees to its customers.¹³² The issue is that even though cable companies are investing on average $20 billion a year on capital expenditures, the companies need to know that there will be a reasonable return on further network investment.¹³³ With that said, the United States invests 50 percent more money than the European Union in telecommunications infrastructure.¹³⁴ Only South Korea and Japan have Internet connection speeds sequel to or greater than 10 megabits per second.¹³⁵

POSSIBLE INCREASE IN TAXES

According to Free Press, a proponent of net neutrality found that the additional taxes under net neutrality for American citizens is approximately $4 billion a year.¹³⁶ On the other hand, the Progressive Policy Institute, an opponent to net neutrality, estimated that additional tax to be at most $11 billion per year.¹³⁷ Given that there are 327 million Americans,¹³⁸ the tax


¹²²Id.


¹²⁶Id.

¹²⁷Id.
increase ranges from $12.23 per person to $33.64 per person, or from one to three meals at a decent restaurant.

**SIGNIFICANT GROWTH IN INVESTMENT COMPETITION**

In a 2010 paper by the late Gary Becker, a Nobel laureate in economics, with Dennis Carlton and Hal Sider, these economists discovered that the number of high-speed access lines in the United States grew from 16 million to 133 million from mid-2002 to mid-2008. During the same period, residential broadband lines expanded from 14 million to almost 80 million. From 2007 to 2009, Internet traffic tripled. Even so, the profit margins for cable companies are about one-sixth to one-eighth of the profit margins for the companies that use the Internet. According to the Progressive Policy Institute, almost every American can select from between five and six broadband ISPs. According to Becker et al., the FCC observed in 2008 that 99.8 percent of zip codes in America could choose between two or more high-speed Internet providers, with 94.6 percent of zip codes having four or more providers.

**UNECESSARY REGULATIONS**

The opponents to net neutrality aptly observe that the Internet grew substantially in the last 15 years without any government intervention. FCC Commissioner Ajit Pai argued that the Internet is not broken, so there is no need to fix it. However, this argument assumes that the future will resemble the past and that the Internet will continue its growth unabated. Only under the circumstances of unlimited growth does this argument have merit. If economic signals indicate that the Internet is maturing, then its growth rate will decline to probably a steady state. This means that the argument is not taking into consideration the fact that as a technology matures, its S-curve trajectory tends to flatten out. When an S-curve becomes more or less flat, it indicates that an industry has matured, and government regulations may be appropriate.

**JOHN RAWLS’ PHILOSOPHY ON LIBERTY**

Rawls advocated the following two immutable principles:

- Principle of greatest liberty that states that every individual has an equal right to basic liberties, such as “the right to vote and be eligible to hold public office; freedom of speech and assembly; liberty of conscience and freedom of thought; freedom of the person, along with the right to hold personal property; and freedom from arbitrary arrest and seizure”.

- Principle of equality affirms that social and economic conditions must be available to all individuals fairly and equally, and the social and economic conditions must maximize the benefit to the least advantaged people in society.

According to Rawls, the only time that a government can restrict liberty is for the sake of liberty and is limited to the basic liberties outlined above.

The strength of Rawls’ position on liberty is that his principles are immutable. It is as if Rawls is creating a “moral geometry,” where his two principles are the assumptions behind his theorems and corollaries. Like all of mathematics, Rawls’


151. The issue with the unlimited growth model for the Internet is that for the model to be correct, there must be an unlimited growth of the world’s population, or there must be unlimited avenues for the Internet to enter or unlimited application to employ the Internet.


Theory of justice and liberty is a logical edifice where propositions are proven using deductive logic. The key to applying Rawls' theory to specific instances is to ensure that the premises are true, and if so, the conclusion is necessarily true. If there is any weakness is Rawls' theories, it is that reality is always in the process of becoming. It is not static, as espoused in Aristotle's Posterior Analytics. Rather, our reality is constantly changing. "A" may no longer be "A" in the future, but maybe something else.

**RAWLS' OPINIONS ON THE NET NEUTRALITY ARGUMENTS**

Because of the number of pro and con arguments that have been discussed in this paper, it is only appropriate to discuss what may have been Rawls' opinions on the arguments in favor of net neutrality as well as his views of the arguments opposed to net neutrality. In this way, a certain amount of balance can be achieved.

**OPINIONS REGARDING ARGUMENTS IN FAVOR OF NET NEUTRALITY**

**COMPETITION AND INNOVATION**

Cable companies are in some sense gatekeepers because the Internet runs on their networks. The cable companies have actual control over the packets that are transmitted and received on their cables and telephone lines. Rawls believed that the economic conditions regarding the Internet must maximize the benefit to the least advantaged people in society. Based on the ever-increasing transmission speeds available to customers, it seems that competition and innovation are benefiting individuals. Thus, this argument appears to be valid.

**DATA CONTROL**

By rescinding the common carrier designation by the FCC, the Trump administration has removed the FCC from regulating the Internet, turning over regulatory powers to the Federal Trade Commission ("FTC"). From an economic perspective, it appears to be only a matter of time, probably several years, until cable companies engage in monopolistic behavior against consumers and Internet companies such as Google take actions to extract additional profit. From Rawls' point of view, such behavior would be in the interest of the cable companies, and not be in the best interest of the poor. By law, a company's primary interest is to maximize shareholder value, or economically, maximize profits, not necessarily helping the least advantaged. Thus, Rawls would argue that data control via one or more of the discrimination types discussed above is entirely possible without net neutrality.

**END-TO-END PRINCIPLE**

If data is not treated equally by the Internet, then some data are better than other data. The argument is akin to the arguments proposed by many Protestant Christian ministers these days that God wants us to prosper, and those that are more favored by God are richer than the rest of humanity. Rawls would contend that even if some data are better than other data, it is the "least data" that should benefit the most and not the other way around. With information, if one person has information and sells that information to another person, then both people have the information. Because scarcity does not exist with information, Rawls would propose that the only way to maximize the benefit for the "least data" is to ensure that all data is treated equally. Thus, this argument also appears to have merit.

**PREVENTING PSEUDO SERVICES**

The Comcast v. Microsoft and the Comcast v. Netflix battles of 2012 and 2014 respectively demonstrate that cable companies are more than willing to employ their gatekeeper status to further their economic interests. If Comcast and other cable companies can injure software and Internet companies and then force the consumer to use their products, there is only the law

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162 Id.

163 Leif Wenar, supra.

164 Chris Mills, Comcast is only increasing internet speeds for customers who also pay for cable, BGR Media, May 1, 2018, https://bgr.com/2018/05/01/comcast-internet-speeds-cable/ (last visited August 18, 2018) and Monica Chin, If you have Comcast Xfinity, your internet may soon get a lot faster, Mashable, March 6, 2018, https://mashable.com/2018/03/06/comcast-increases-xfinity-speeds/#Ou9DBUZN.Oqw (last visited August 18, 2018).


166 Leif Wenar, supra.


169 Leif Wenar, supra.

170 Paul Krugman & Robin Wells, supra.


172 Leif Wenar, supra.

173 Dan Mitchell, supra and Brian Nadel, supra.
and a sense of fair play to prevent them. Rawls would contend that Comcast attempted to maximize its benefit without considering the benefit of the least advantaged. Thus, Rawls would condemn Comcast’s behavior of trying to maximize shareholder value and profits. In other words, Rawls would probably support the prevention of pseudo services.

**PRESEVRING THE STANDARDS OF THE INTERNET**

One of the technological methods available to technically speed up packets from individuals and companies paying a premium to cable companies for faster transmission speeds is to change the content of TCP/IP packets. If the content of a TCP/IP packet is altered, it is straightforward to determine which packets are to be given transmission priority. It should be understood that there are currently reserved bytes within a packet that could be used by cable companies to designate high-speed packets. The advantage of using these reserved bytes is that length in bytes of the TCP/IP packets would change only slightly. The disadvantage is that some browsers may not be able to recognize these modified packets. However, this situation could probably be quickly rectified.

Rawls would question who benefited from the change in the packet structure. If the only people that were helped by altering the packet structure were the cable companies, Rawls would be against it. On the other hand, if everyone benefitted, Rawls would endorse the change.

**RIGHTS AND FREEDOMS IN A DIGITAL WORLD**

The problem with the First Amendment and free speech are that the government cannot violate this fundamental right. The First Amendment is silent about private organizations quelling speech. Under statutory law, the only time that a private organization must honor this fundamental right is when it is equivalent to a public square. Rawls would probably believe that the Internet is a modern-day public square. The reason is that the Internet benefits everyone which is one of his fundamental principles. Even so, the freedom of speech issue has all of the makings of a future Supreme Court decision. Given the conservative makeup of the Court, it seems likely that the Court would hold against Rawls and net neutrality.

**USER PREJUDICE AGAINST WEBSITES THAT LOAD SLOWLY**

The issue in this argument is what happens when the transmission speeds change. Will the transmission speeds for some people increase while the transmission speeds for other people decrease? Or, will the transmission speeds increase for some people, but remain the same for other people? If it is the former, then the fear of the net neutrality proponents is justified. Rawls would be against the change because the different transmission speeds would not benefit everyone. If the latter occurs, Rawls would have no qualms about the decision because the least advantaged were not harmed.

**OPINIONS REGARDING ARGUMENTS AGAINST NET NEUTRALITY**

**COUNTERWEIGHT TO THE NON-NEUTRALITY OF SERVERS**

This argument indicates that the Internet is currently not neutral, and so it seems to be saying that net neutrality is a non-issue. It is correct that large companies already have a performance advantage when compared to small competitors. The question is whether the performance advantage becomes the norm rather than the exception. It does not make sense to make non-neutrality the standard because then only the big companies can afford high-speed transmissions. There is the distinct possibility that in rescinding net neutrality, cable companies will focus their resources on their high-paying customers, providing only marginal transmission speed increases to the rest of its customers.

From Rawls’ perspective, the critical issue regarding this argument is whether by focusing on its high-paying customers, cable companies are restricting liberty for the sake of liberty. Rawls would suggest that the restriction is due to cable companies attempting to maximizing shareholder value or

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174See Dodge v. Ford, supra and Krugman & Wells, supra.
176Id.
177Charles M. Kozierek, supra.
178Id.
179Id.
180Leif Wenar, supra.
181Id.
182U.S. Const., amend. IV.
185Leif Wenar, supra.
186The last time the Supreme Court was a liberal court was when Earl Warren was Chief Justice. The Court has been a conservative for the past 50 years (since 1969 when Justice Warren retired), while Warren Burger, William Rehnquist, and John Roberts were Chief Justices.
188Leif Wenar, supra.
189Richard Patterson, supra.
190Id.
191Chris Mills, supra.
192Leif Wenar, supra.
maximizing profits.\textsuperscript{194} The least advantaged do not seem to be taken into consideration by this argument.

**DISCOURAGES COMPETITION**

Rawls would opine that the argument that net neutrality discourages competition is unconvincing. The purpose of net neutrality is to promote the equal treatment of data by the Internet from anyone.\textsuperscript{195} Many years ago, John D. Rockefeller Sr, the founder of Standard Oil, stated that competition is a sin.\textsuperscript{196} Rockefeller spent a good portion of his business life in buying up and sometimes ruining his competition.\textsuperscript{197} In other words, according to Rockefeller, companies should work to eliminate competition. Rockefeller benefitted himself and Standard Old, and not the poor.\textsuperscript{198} There is no reason to believe that cable companies in the 21st Century have abandoned the pursuit of monopoly power. Thus, Rawls would almost certainly conclude that this argument has little or no value.

**INTERNET TRAFFIC NOT ALLOCATED EFFICIENTLY**

Here, Rawls would notice that this argument can be confusing because the word “efficient” can be misinterpreted. What the argument is referring to is financial efficiency, which is code for minimizing costs, and not technological efficiency.\textsuperscript{199} In economics, minimizing costs is logically equivalent to maximizing profits.\textsuperscript{200} Thus, Rawls would observe that the argument seems to be implying that net neutrality does not allow a cable company to maximize shareholder value or maximize profits.\textsuperscript{201}

Rawls would also point out that cable companies are currently natural monopolies or at least a member of a natural oligopoly in local communities.\textsuperscript{202} By being granted a license to operate in a community, cable companies are assured reasonable profits, but not optimal profits.\textsuperscript{203} With this argument, the cable companies appear to be suggesting that they want to maximize their profits, while at the same time, the firms seem to desire that federal, state, and local governments protect them in providing cable television services to their customers.\textsuperscript{204} Rawls would argue that the cable companies cannot have it both ways. They can either be treated as a common carrier and be assured of a reasonable profit and help everyone, or disavow government protection, run the risk of failure, and only help themselves.

**INTERNET ACCESS NOT AVAILABLE TO THE POOR**

Rawls would boldly state that cable companies are not charities even though they may attempt to improve their image among low-income customers.\textsuperscript{205} Companies do not give away their products for free or under cost unless there are genuine profit-making reasons for doing so.\textsuperscript{206} Corporations are legal fictions that have neither morals nor ethics, but they do have interests.\textsuperscript{207} Rawls would suggest that a firm’s primary legitimate interest is to maximize shareholder value, or economically, maximize profits, not help the poor.\textsuperscript{208}

**INVESTMENT REDUCTIONS**

According to this argument, net neutrality makes it more difficult for ISPs to recoup their investment in broadband networks.\textsuperscript{209} Rawls would ask whether recouping investment is in the best interest of the least advantaged.\textsuperscript{210} However, in spite of this so-called difficulty, individual cable companies invested about $20 billion per year in improving their network investment.\textsuperscript{211} Now, $20 billion annually is a sizeable sum of money.\textsuperscript{212} Rawls could find it hard to believe that if net neutrality did not exist, companies would invest some of the additional revenue in improving their fiber optic networks. Rawls would suggest that their far more likely behavior would be to take the extraneous come, and invest it in the financial markets because their return on investment would be more than any investment in fiber optics.\textsuperscript{213} This is what financial institutions did when the Federal Reserve engaged in quantitative easing

\textsuperscript{194} See Dodge v. Ford, supra and Krugman & Wells, supra.

\textsuperscript{195} Lawrence Lessig & Robert W. McChesney, supra.

\textsuperscript{196} Christopher T. S. Harvey, Competition Is A Sin, UK Huffington Post, October 7, 2017, https://www.huffingtonpost.co.uk/christopher-t-sharvey/competition-is-a-sin_b_17444620.html?guccounter=1&guce_refferer_us=aHR0cHM6Ly93d3cuZ29vZ2xlLmNvbS8&guce_refferer_cs=OoXuXYJ1fIdobOowlIz.

\textsuperscript{197} Id.

\textsuperscript{198} Paul Krugman and Robin Wells, supra.

\textsuperscript{199} Id.

\textsuperscript{200} See Dodge v. Ford, supra and Krugman & Wells, supra.

\textsuperscript{201} Paul Krugman and Robin Wells, supra.

\textsuperscript{202} Id.

\textsuperscript{203} Id.


\textsuperscript{206} Id.


\textsuperscript{208} See Dodge v. Ford, supra and Krugman & Wells, supra.

\textsuperscript{209} Arshad Mohammed, supra.

\textsuperscript{210} Leif Wener, supra.

\textsuperscript{211} Tyler Cowen, supra.

\textsuperscript{212} Id.

\textsuperscript{213} Miles Johnson, Stock market winners of 2008’s crash had one thing in common, Financial Times, October 2, 2017, https://www.ft.com/content/1dfecc1a2-a77f-11e7-93c5-648314d2c72c (last visited August 18, 2018).
during the Great Recession of 2008 (i.e., flooding the financial markets with more money).\textsuperscript{214} The banks took the money that the Fed and Congress gave them and made more money in the financial markets.\textsuperscript{215} Rawls would probably conclude that there is no reason to believe that cable companies would behave any differently.

**POSSIBLE INCREASE IN TAXES**

As previously stated, according to the Free Press, the additional taxes for the average American citizen is $4 billion a year, $12.23 per year per person.\textsuperscript{216} However, the Progressive Policy Institute estimated that the additional taxes attributed to net neutrality is $11 billion per year or $33.64 per year per person.\textsuperscript{217} Now, Rawls would agree that the $7 billion difference is a substantial amount of money.\textsuperscript{218} However, if these figures are divided by the population of the United States or 327 million people, and the results subtracted from each other, Rawls would opine that the difference is $21.41 per year per person.\textsuperscript{219} This is the amount of money needed to purchase dinner at a moderately upscale restaurant, hardly an amount that justifies the abolishment of net neutrality. Rawls would probably suggest that for the least advantaged the cost differential is not substantial.

**SIGNIFICANT GROWTH IN INVESTMENT COMPETITION**

It is true that access to high-speed Internet has grown dramatically since 2002, and that Internet traffic has expanded seemingly without measure.\textsuperscript{220} Rawls would argue that an increase in transmission speeds benefit the poor.\textsuperscript{221} The fact that cable companies do not make nearly as much money as Internet companies would not lend Rawls to concede that net neutrality is inappropriate because profit increases are seemingly irrelevant to Rawls’ philosophy.\textsuperscript{222} On the contrary, Rawls could argue that the cable companies are experiencing a wave of creative destruction.\textsuperscript{223} It should be remembered that cable companies either are natural monopolies or members of a natural oligopoly with reasonable profits assured by the government.\textsuperscript{224} Rawls would observe that the argument seems to imply that it is morally and ethically wrong to restrain companies from maximizing profits.\textsuperscript{225} The proponents of this argument conveniently fail to mention that the gains made by Google and other Internet companies are the reward for taking on risk in a fickle and speculative market, and by doing so helped everyone.\textsuperscript{226} Rawls would affirm that the tradeoff is between low risk and reasonable gain and high risk and speculative gain.\textsuperscript{227}

**UNNECESSARY REGULATIONS**

For the reasons previously mentioned, Rawls would be assert that this argument is unconvincing. In the heyday of the Internet, this market was in its infancy.\textsuperscript{228} Economic theory as expressed by the S-curve market growth curve demonstrates that in periods of high growth, regulation is counterproductive.\textsuperscript{229} Rawls would probably argue that the lack of regulation in the Internet’s infancy benefitted everyone because the Internet was permitted to mature rapidly.\textsuperscript{230} However, as a market grows into adulthood, and the S-curve flattens out, Rawls would opine that regulation may be appropriate to prevent corporate abuse, thereby enhancing everyone’s liberty.\textsuperscript{231} The protagonists of net neutrality merely ignore this crucial feature of economic growth. Rawls would doubtless observe that the argument appears to presume that the Internet market will stay young forever. Rawls would probably think that this argument is delusional at best, and downright wrong at worst.

**CONCLUSION**

In this paper, it was argued that Rawls would believe that net neutrality is a fair and reasonable policy. In all probability, Rawls would likely change his opinions if the reasons presented by the net neutrality opponents were logical and convincing, and maximized the benefits to the least advantaged.\textsuperscript{232} The result of this analysis indicates that Rawls would agree that the antagonists of net neutrality have failed to tip the scales in their favor. Their arguments are mostly economic, and their allusions to altruism seem to be feeble and insincere. Therefore, it is concluded that for Rawls net neutrality is both a fair and reasonable mechanism to ensure that justice is served, and the many are not sacrificed to benefit of the few.


\textsuperscript{216}See footnote 139.

\textsuperscript{217}See footnote 140.

\textsuperscript{218}$7 billion = $11 billion - $4 billion.

\textsuperscript{219}$21.41 = $33.64 - $12.23.

\textsuperscript{220}Gary S. Becker, Dennis W. Carlton & Hal S. Sider, supra.

\textsuperscript{221}Leif Wenar, supra.

\textsuperscript{222}Id.

\textsuperscript{223}THOMAS K. MCGRAW, PROPHET OF INNOVATION: JOSEPH SCHUMPETER AND CREATIVE DESTRUCTION (Belknap Press 2010).

\textsuperscript{224}Paul Krugman and Robin Wells, supra.


\textsuperscript{226}ASWATH DAMODARAN, CORPORATE FINANCE: THEORY AND PRACTICE (John Wiley & Sons 1997).

\textsuperscript{227}Id. and Paul Krugman and Robin Wells, supra.

\textsuperscript{228}Barry M. Leiner et al., supra.

\textsuperscript{229}Andrew Latham, supra.

\textsuperscript{230}Leif Wenar, supra.

\textsuperscript{231}Andrew Latham, supra and Leif Wenar, supra.

\textsuperscript{232}Leif Wenar, supra.