Research

Guidelines & Questions to Frame the Network Neutrality Proceedings

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Earlier this year, the DC district court ruled on *Verizon v FCC* decision, a case involving the Federal Communications Commission's (FCC) 2010 Open Internet Order. While the courts got rid of the blocking and nondiscrimination rules, they also affirmed the power that the Commission had carved out in making the order, and kicked the rule back to the agency for further consideration.[1] As stakeholders and the public weighs in on new regulations, the FCC should ensure future proceedings are oriented towards fully exploring the economic implications of network neutrality.

The ecosystem's players have changed dramatically. While there was once concern that the edge providers needed protection, like the net neutrality rules, to survive and thrive, some are now suggesting that the edge players might be engaging in potentially nondiscriminatory conduct.[2] In the intervening years since the original order, the Internet has continued to be the "open platform for innovation, investment, job creation, economic growth, competition, and free expression" that the FCC hoped it would be with network neutrality rules.

Over the past year alone, average broadband speeds increased 31 percent.[3] Of the world's investment in broadband, the U.S. has nearly a fourth of it, even though we only have 4 percent of the world's population.[4] In the last comprehensive study conducted by McKinsey on the subject, the U.S. was the largest player in the global Internet supply ecosystem, capturing more than 30 percent of global Internet revenues and more than 40 percent of net income. The U.S. tech economy also continues to be the most diversified, garnering relatively equal contributions from hardware, software and services, and telecommunications.[5] Innovative centers throughout the country contribute to the value of American tech startups, which tower over the rest of the world. Given our continued dominance in this space, the FCC again needs to ask tough questions about the nature and need of network neutrality regulation.

This paper provides guidance for the Commission by posing a series questions that should be asked in upcoming rulemaking proceedings. It will also serve as an analytical framework for future filings in this docket, and for future explorations of cyberpolicy.

Regulations are far from costless, and with the dynamic nature of the Internet, implementing any sort of law requires a heavy burden of proof. The Open Internet Order that was just struck down stated that "the costs associated with the open Internet rules adopted here are likely small," but unfortunately, this does not comport with economic theory or empirics.[6] In other words, the FCC needs to engage in a more rigorous analysis of the unforeseen consequences.[7]

While implementing net neutrality could stop some potentially harmful behavior, it would also sweep into illegality a number of business models that could benefit consumers. Thus repeating the Open Internet Order is inefficient compared to other regulatory approaches.

Broadband environment and a framework for regulatory analysis

Regulating the tech sector is particularly tough. Firms innovate and then are bought up by incumbents. A problem quickly becomes an opportunity, which then becomes the next killer app. Innovation is not just a buzzword, it is simply a catchall to describe the changing landscape, and broadband networks are quickly changing. Even though it is sometimes messy, the current regulatory and investment regimes have been vital in matching supply with demand, supporting Internet build-out, and aligning the proper incentives for the creation of large, fast networks. Many argue that the openness of the Internet has led to this result, which necessitates network neutrality rules. These claims deserve more scrutiny by the FCC.

The following three step analysis—adopted from the law and economics literature—should help the Commission explore the thesis:[8]

1. Prove the existence of market failure due to actual consumer harm, following the lead set by the Federal Trade Commission;[9]
2. Explain that current law is inadequate, and that there exists no alternatives including market correctives, deregulatory efforts, or public/private partnerships to solve the market failure; and
3. Demonstrate how the benefits of regulation will outweigh the potential countervailing benefits, implementation costs and other associated regulatory burdens.[10]

Even though this comment does not strictly follow these steps, the analysis helps to frame important lines of inquiry about the nature of consumer harm and the limits of regulatory solutions, which needs to be considered. Even though there is renewed demand for network neutrality rules, the Federal Communication Commission has an opportunity to get regulation right, and ensure that regulatory burdens do not stifle this sector. That goal, more than others, should be a guiding light.

What is network neutrality and why would it be a problem?

While wrapped in terms of Internet freedom, network neutrality remains a thoroughly nebulous term to define. Network neutrality commonly refers to the concept that Internet networks have and should remain neutral to content. In other words, network providers should not slow down, speed up, or censor data, as it is routed from its originator to the end users.

In practice, networks slow data in order to check for spam and perform other quality of service operations. In the 2010 order that was partially struck down, the FCC justifiably carved out allowances for network operators to manage traffic. Moreover, the FCC applied rules asymmetrically to wired and wireless networks, implicitly recognizing that there is some deference that networks should have in expansion. Both could not block lawful content (the no blocking provision) but only fixed providers like AT&T's UVerse and Verizon's FiOS were required to not unreasonably discriminate (nondiscrimination rule). The Report and Order opened an important, but unresolved question that should be taken up more fully in the next round of comments: *just how far can traffic management could go in the name of efficiency, especially economic efficiency?*

Answering this question sets up the basic call and response for network neutrality debates. Proponents of network neutrality argue that companies will go too far in traffic management, and demand payment from content companies or being degrading and blocking content to consumers. In doing so, the cost of content would increase, entry barriers for startups are created, and dynamism on the Internet would be stifled. However, providers of Internet service have argued that they have no desire to block or degrade content, and instead would like to provide faster than basic service for content companies who pay. Economics broadly categorizes

these kinds of "pay for priority business" agreements as vertical contracts, which exist throughout the economy. For example, shipping companies often differentially price the transportation of goods, so it is not clear without real world context if such deals will harm consumers on the Internet.

For the next proceeding, the FCC should solicit comments exploring the issue of vertical contracts more in depth: *What can we learn then from the economics of vertical contact? What lessons are there to be had in antitrust law that might be applicable to net neutrality? What should we expect from zero price regulation?*

First, however, the Commission needs to firmly establish that violations are frequent and cause harm to consumers.

How extensive are network neutrality violations?

Before any new rules are issued, the FCC should collect and assess various allegations of network neutrality violations to determine if there is a market failure. Because of the recent ruling, the FCC will be uniquely positioned as a clearinghouse for this kind of information. While the blocking and discrimination portions of the ruling were shot down, the transparency rule withstood the DC court decision, requiring companies to publish their network management practices. In the near future, economists and policy analysts will be able to better understand just how often the practice actually occurs, so there is merit in the Commission considering this at a later time.

Two examples of network neutrality violations are often cited, especially within the 2010 Report and Order:

- In 2008, Comcast disrupted certain BitTorrent peer-to-peer (P2P) uploads "without a reasonable network management justification and without disclosing its actions," according to the FCC. Bowing to pressure from consumers and the bad press that the action engendered, Comcast worked with BitTorrent to implement new protocols that would solve traffic congestion on Comcast's networks.
- In 2005, a telephone company with a little over 200,000 subscribers, Madison River, blocked VoIP services for its DSL customers.[11] The FCC imposed a $15,000 fine on the company, which agreed to discontinue the practice.

The Comcast kerfuffle is indicative of the complex nature of broadband markets. According to an often mentioned Associated Press report, Comcast "actively interfere[d] with attempts by some of its high-speed Internet subscribers to share files online, a move that runs counter to the tradition of treating all types of Net traffic equally."[12] News quickly spread through the Internet via chat rooms, discussion boards, and nascent social networking sites, resulting in a backlash against the company.[13] While Comcast claimed that the network management practices were needed to combat congestion, they eventually had to back away from their position under pressure from consumers, regulators and the bad publicity. By the time the Commission released a ruling, technology made the reprimand unnecessary. As this story exemplifies, companies are facing new pressures for accountability. Markets are moving quickly enough that regulatory responses are sometimes obsolete for solving consumer harm. Rules should similarly recognize this flexibility.

As for Madison River, it was dealt with by the FCC with its current authority. Both events highlight that less restrictive alternatives exist to deal with actual concerns as they arise in the marketplace.

A number of other events have been labeled as network neutrality violations:

- AT&T Mobility set up the Sponsored Data program that allows content providers to pay for data that

wireless consumers use while on their site. Even though the move was decried, it remains unclear in the deals what would constitute actual harm.

- Comcast finalized a paid peering deal with Netflix that established the content company as a major player in the content delivery space by guaranteeing service, a standard agreement in the industry. A number of commenters suggest that this is a clear violation, but Netflix's Reed Hastings quickly responded, saying that the deal did not violate neutrality. The original rules exempted peering deals from regulation.
- During a renegotiation of their video content, CBS asked for an increase in the fees from Time Warner Cable. When the cable company balked, CBS pulled its content from Time Warner's TV and Internet networks. Both Rep. McDermott and Sen. Ed Markey were enraged by the move to limit online users' access to TWC's content, and asked the FCC to investigate CBS under the FCC's network neutrality rules. The blackout may have been an annoyance to consumers, but even as Acting FCC Chairwoman Mignon Clyburn reiterated, it was not a violation.

The purported violations catalogued here show incredible variance. The first dealt with data caps, the second was an issue of peering (which the original network neutrality order exempted), and the third dealt with a video law (which has been the subject of much conversation in the reauthorization of STELA). In future proceedings, much like the last one, the FCC should consider the following questions: *What constitutes a network neutrality violation? What conduct would be included in this? What conduct would be excluded?*

The previous Order and Report did detail what would and would not constitute violations, which should similarly be achieved in this docket, but failed to prove that the conduct lead to consumer harm. Surveying the literature on vertical contracts in conjunction with the aforementioned questions on the scope of violations will help the agency to better understand how to appropriately construct a regulatory regime.

Emboldened by the court decision, content providers now have every incentive to publicize a slight by network operators, as evidenced by Netflix CEO Reed Hastings' reaction to the ruling: "We would vigorously protest and encourage our members to demand the open Internet they are paying their ISP to deliver."[14] Netflix already ranks ISPs by their ability to stream Netflix, and Google announced days after the decision that they will begin to do the same for ISPs' YouTube performance.[15] These ratings will be helpful to the policy discussion, even though they will not be positive proof of the behavior.

As countless parties have expressed, discriminatory policies tend to be haphazard and rare.[16] Ultimately, the record of violations is thin, suggesting that the basis of promulgating sweeping rules is similarly thin.

Exploring the costs and benefits of regulation: What kinds of business deals will be made illegal?

Any new rule will need to make the case that vertical contracts violating network neutrality are both commonplace and lead to consumer harm. However, consideration should also be given towards potential benefits of these potentially non-neutral contracts.

In the original Report and Order, it is noted that:

> "By interfering with the transmission of third parties' Internet-based services or raising the cost of online delivery for particular edge providers, telephone and cable companies can make those services less attractive to subscribers in comparison to their own offerings…"

> "End users would be harmed by the inability to access desired content, and this conduct could lead to reduced innovation and fewer new services."

The second statement is not a foregone conclusion, as conduct cannot be divorced from context.

Take for example, ESPN. As a network, it is in a league of its own, pulling in around $6 billion in cable fees, which makes up about half of Disney's operating profits. For some time, Verizon has been in talks with ESPN to subsidize smartphone data usage, and AT&T now offers such a program with their Sponsored Data. As cell phone users become more conscious of their data plans, content providers will continue to find means to route around these problems. While not illegal for wireless providers, such a program would have been dubious under the Open Internet Order. Had the order stood, the content company would be also barred from paying for prioritized service, like a branded ESPN package. Even though consumers would have surely loved the service and the contract could have paid for infrastructure buildouts, rules like net neutrality would unilaterally excluded such deals.

Or consider a scenario for gamers. Online multiplayer games are won and lost by those with the best latency. Assuring consumers had dedicated lines for latency could easily be a win-win for both parties, but this would have violated previous nondiscrimination provisions. Consumers would get an edge in their game play and network providers would get the incentive to build out networks dedicated for these ends.

Both proponents and detractors admit that network neutrality regulates both the price and conduct of content over the net. In legal parlance, rules like network neutrality that prohibit all behaviors are called *per se* illegal. For the last forty years, antitrust law, buttressed by advances in economics, moved away from these kinds of rules, as they automatically sweep up all business models into illegality without any concern for potential benefits.[17] Instead, courts now prefer to determine after a harm has been committed if it was in consumers' best interest.

While the FCC previously denied potential benefits from these kind of vertical contacts, distinguishing socially beneficial discrimination from socially harmful discrimination in a workable regime should be another primary goal for future proceedings. Commenters should be mindful of the economic efficiency or inefficiency of the rule, by asking: *What are the costs and benefits of a rule like network neutrality? What kinds of detrimental behaviors by ISPs will this rule make illegal? Are there potential positive behaviors that this rule also makes illegal?*

What are the FCC's options for network neutrality?

Leading up to the new call for action, Chairman Wheeler called for rules based on FCC's adjudication power, which provides greater agency flexibility to solve many of the concerns that the previous rules created. In concept, this approach would tend towards more optimal outcomes, as it would require that consumers were actually harmed before an agency action took place. However, in practice, crafting standards that achieved flexibility might have some of the same problems as those that are lobbed at the Federal Trade Commission.[18]

In all likelihood, the Commission will adopt the "commercially reasonable" path laid out in *Cellco* through this docket. The standards are unlikely to see the same jurisdictional problems as the Policy Statement faced in *Comcast*, while still achieving flexibility and some certainty that consumer groups and companies desire. Since the Court found that this standard "left substantial room for individualized bargaining and discrimination in terms," it did not violate the common carriage "just and reasonable" standard. If the Commission does decide to choose this route, it would make the nondiscrimination guidelines it laid out untenable. However, considering

that price differentiation is generally consumer welfare enhancing, this would be a win. A Cellco standard, like every other kind of regulation will have tradeoffs, and the Commission should be transparent in outlining them. Given the power that Section 706 affords, a standard like this could apply to most any business contract on the Internet, so it should be clear just what kinds of business deals it intends to review. Much like the previous Order and Report, the FCC should consider exempting peering contracts, the unsung hero of Internet interconnection regime.

The Commission has not taken reclassification off the table, but it should. Reclassifying under Title II regulation would reverse 40 years of law and layer a whole set of regulations on broadband services. Cable companies that never operated under these laws and flourished in their absence, would mire the Commission in a complicated and lengthy legal battle. By reclassifying and then forebearing, the Commission would be forced to open a new proceeding for each provision. The paperwork, administration hassle, and industry uncertainty would simply not be worth the end result, which could easily be achieved through other means. Moreover, AT&T just began a multiyear process to upgrade their aging networks and have asked the Commission to reconsider the scope of common carriage regulations. It would be quite the political feat for the agency to reduce the scope of regulations because of market forces in the case of AT&T, while placing broadband providers in that regulatory bucket.

With the dynamic nature of the Internet as a backdrop, the Commission should revisit an option that Commissioner McDowell laid out in his dissent of the Open Internet Order:

> "In lieu of new rules, which will be tied up in court for years, the FCC could create a new role for itself by partnering with already established, nongovernmental Internet governance groups, engineers, consumer groups, academics, economists, antitrust experts, consumer protection agencies, industry associations, and others to spotlight allegations of anticompetitive conduct in the broadband market, and work together to resolve them. Since it was privatized, Internet governance has always been based on a foundation of bottom-up collaboration and cooperation rather than top-down regulation. This truly 'light touch' approach has created a near-perfect track record of resolving Internet management conflicts without government intervention."

In leading, the FCC could solve many of the economic and knowledge problems that this comment highlights. It would also provide guidance for future developments and bring together the FCC and the FTC to stand as the US government's unified voice on technology regulation.

Where are the limits to the FCC's power now over the Internet?

The decision in *FCC v Verizon* has further implications than just the future of network neutrality. While two sections of the order were shot down, the FCC also got a new line of power under Section 706 of the Telecommunication Act to "regulate broadband providers' economic relationships with edge providers if, in fact, the nature of those relationships influences the rate and extent to which broadband providers develop and expand their services for end users." As dissenting Judge Silbermann pointed out, this grant would "would virtually free the Commission from its congressional tether."

In response to the ruling, Wheeler promised that the FCC would not "take over the Internet," or "dictate the architecture of the Internet." Wheeler is partially correct. The US government has not directly controlled American media since its disastrous appropriation of radio stations in World War I and is unlikely to do so in the future. However, the FCC's power extends much further than the network neutrality rules, as they can determine contractual relationships between Internet firms. If they use this power to coerce or detract from certain business deals, then they will be dictating the structure of the Internet and the market. And the FCC is no

stranger to structural regulation. As Professor Christopher Yoo opined on earlier FCC actions, their power to determine the structure of media often "has the unintended consequence of reducing the quantity, quality, and diversity of media content."[19]

The FCC also has a history of regulatory overreach. Generally, the agency is given deference under the *Chevron* doctrine, but courts have gone so far as to stop the agency from regulating building construction laws.[20] It is not clear what limits are currently in place for this new authority other than those set out in the Telecommunications Act or the FCC's jurisdiction. The FCC could get involved in a number of new issue areas under the power given to it by Section 706, including cybersecurity, data caps, and peering, which it has left alone. Additionally, consumer products like washers, dryers, and refrigerators are getting embedded with computer intelligence and getting connected to the Internet. As this trend continues and the "Internet of Things" begins to take off, the FCC will have a potential stake in regulating this arena, even though the FTC has generally dealt with privacy issues. In other words, this ruling teed up a potential regulatory rumble between the agencies. *The Commission should craft a statement of policy akin to the FTC's Policy on Unfairness outlining the limits of their authority under Section 706, and how they intend to use this new authority.* Because this will not be binding, legislation or other action that restricts the FCC actions will probably be needed.

Conclusion

The Internet's ecosystem has changed dramatically since the Commission last visited the issue of network neutrality. This comment's line of inquiry is far from the final word on network neutrality, but it provides guidance for more clear questions. Regulations are far from costless, so it is imperative we understand their costs and benefits. Especially as it relates to the Internet, it would be costly to take a regulatory misstep.

[1] Will Rinehart, *Network Neutrality Decision a Mixed Bag for Consumers*, Jan. 14, 2014, http://americanactionforum.org/insights/network-neutrality-decision-a-mixed-bag-for-consumers