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Can Internet Service Providers Lawfully Enhance, or Degrade Third Party Content?

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I. Introduction

Internet Service Providers (ISPs) throughout the world have introduced a variety of service tiers based on such variables as traffic delivery speed and monthly data allowances. Additionally, these carriers offer subscribers a variety of inducements for migrating to more costly monthly service plans, such as unlimited data and a commitment not to degrade the resolution of video content.

An ambiguous line separates lawful broadband service tiering and discrimination on the basis of price and quality of service, versus unlawful interference with content received by ISPs for subsequent delivery to their retail broadband subscribers. In the United States ¹ and other nations, ² concerns about discriminatory handling of traffic by ISPs have motivated legislatures and national regulatory authorities (“NRAs”) to impose rules ostensibly designed to promote


competition and consumer protection. These rules impose “network neutrality” obligations on ISPs to operate as nondiscriminatory conduits, prohibited from blocking lawful content and deliberately dropping packets of content, which would degrade, or ruin consumers’ quality of experience. NRAs also prohibit ISPs from slowing the speed of their network traffic delivery (“throttling”) with an eye toward creating artificial congestion quickly remedied if content providers and distributors agree to pay a surcharge. Additionally, some NRAs prohibit ISPs from offering to prioritize their handling of traffic from specific sources if they receive additional compensation.

NRAs can more readily and lawfully impose nondiscrimination requirements on ISPs if they classify these service providers as common carriers obligated to offer services on a nondiscriminatory basis. However, even under this classification, ISPs can lawfully offer service tiers with different, terms, conditions and prices. Similarly, NRAs permit carriers to manage their networks in ways that might impact quality of service, including transmission speeds to

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specific users, filtering of content deemed harmful, such as spam, and the temporary throttling of traffic during congestion, or when a subscriber exceeds a monthly data allowance. 4

Despite conscientious efforts to differentiate lawful and unlawful discrimination, NRAs, such as the United States Federal Communications Commission (“FCC”), have generated much regulatory uncertainty. ISPs do not have a clear sense of what marketing inducements and service differentiation they can undertake without violating rules, such as the prohibitions of paid prioritization and throttling of specific traffic streams. Despite such uncertainty, ISPs increasingly seek to offer diversified tiers of service with different price points and surcharge possibilities.

For example, ISPs now offer subscribers opportunities to qualify for subsidies, discounts and special treatment of their traffic downloads. “Zero rating” 5 provides subscribers with cost-saving opportunities where an ISP offers not to debit a subscriber’s monthly data allotment when he or she downloads content originating from specific sources. With a zero rating option,


broadband subscribers can conserve their monthly data allowance and avoid having to pay a surcharge for exceeding it.

ISPs recently have generated an alternative to zero rating in light of the possibility that it violates network neutrality rules. Carriers offer new “unlimited” data plans, but the fine print in the deal includes traffic throttling once subscribers exceed a specified volume of data within a month. Wireless broadband carriers also have introduced a service option that provides unlimited data, but reduces the screen resolution of all video unless subscribers pay a monthly surcharge for the faster transmission and higher data capacity needed to retain the high definition video image.

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6 “On all T-Mobile plans, during congestion the top 3% of data users (>28GB/mo.) may notice reduced speeds until next bill cycle. Video typically streams on smartphone/tablet at DVD quality (480p). Tethering at Max 3G speeds.” TMobile, Introducing TMobile ONE; available at: https://explore.t-mobile.com/t-mobile-one.

7 “The data is really unlimited? Yes and no. On the surface, you can use as much 4G LTE via your phone as you want. But there are at least three catches that act as brakes on your data usage: (1) If you exceed 28GB of data usage, which T-Mobile says 3% of users do, then you are subject to throttling -- or slower data speeds -- during peak periods when demand on the network is high (2) Video streams are capped at 480p resolution, unless you buy one of the special upgrades T-Mobile offers, described below (3) When you "tether" your laptop to a smartphone to give it broadband access, that usage will be capped at 3G speeds, which these days are often too slow to get much real work done. There's a way around that too, but it isn’t free.” Mark Rogowsky, With T-Mobile Mixing It Up Again, Here’s What You Need To Know, FORBES (Jan. 7, 2017); available at: http://www.forbes.com/sites/markrogowsky/2017/01/07/with-t-mobile-mixing-it-up-again-heres-what-you-need-to-know/#1e1da6eb2317; “And all that video you watch? It’s limited to 480p resolution, now. If you want 720, 1080 or 4K video, it’ll cost you another $25 per month.” Nate Swanner, T-Mobile’s new ‘unlimited’ One plan is complete nonsense (n.d.); available at: https://thenextweb.com/opinion/2016/08/18/t-mobile-one-plan-complete-nonsense/.

8 “Mobile optimized: video streams at up to 480p+ resolution, music at up to 500kbps, streaming gaming at up to 2mbps. Data deprioritization applies during times of congestion.” Sprint, Unlimited Plan; available at: http://www.sprintorders.com/new-deals.
Opponents of zero rating and video content downgrading have predicted significant distortions to the marketplace of ideas, harm to the level of innovation and the potential for less competition. They worry that specialized content access and delivery arrangements will bolster the market dominance of incumbent carriers and a small number of content providers by creating irresistible incentives for consumers to favor unmetered content and to rely on deep-pocketed carriers able to offer the most generous discounts, or bundles of services that combine content and carriage.

This paper will assess the potential for harm to broadband consumers and competitors when ISPs, serving retail subscribers, can interfere with content that traverses their “last mile” networks enroute to consumers. The paper concludes that even though ISPs have self-serving, profit maximizing goals when enhancing, or degrading content carriage and display, such practices can have positive spillover effects that enhance consumer welfare without significantly harming competition in the marketplace of ideas and Internet commerce. On the other hand, the paper recommends that NRAs have available a speedy and fair complaint resolution process to remedy content carriage disputes.

9 “The overarching problem here is that widespread zero-rating harms innovation. It prevents newer and smaller players from challenging the established companies, and that’s particularly true when those established companies start consolidating and getting even bigger.” Davey Alba, Big AT&T Deal Proves It’s Time to Stop ‘Zero Rating,’ WIRED, Business (Nov. 3, 2016); available at: https://www.wired.com/2016/11/att-time-warner-deal-shows-time-stop-zero-rating/; New America Foundation, Open Technology Institute, Zero-Rating Plans are a Serious Threat to the Open Internet, Letter to Federal Communications Commission Chairman Thomas Wheeler (March 28, 2016); available at: https://www.newamerica.org/oti/blog/zero-rating-plans-are-a-serious-threat-to-the-open-internet/.

While the FCC summarily rejected any violation of the First Amendment in the imposition of network neutrality rules, the paper suggests that some ISP-imposed carriage terms may have the potential for harming the marketplace of ideas and artistic works. The paper considers whether conditional retention of high quality screen resolution violates the First Amendment by creating financial incentives that favor content sources using obsolete, less bandwidth intensive transmission formats, and new financial burdens on both upstream content sources and downstream broadband subscribers seeking to retain optimal screen resolution.

II. Regulatory Intervention to Ensure a Fair, Neutral and Open Internet

Advocates for network neutrality have emphasized the need for NRAs to impose nondiscrimination requirements on ISPs to prevent these carriers from meddling with traffic they deliver. Proponents of compulsory conduit neutrality have concerns that last mile ISPs will demand additional compensation for enhanced treatment of specific traffic, or an agreement not to downgrade the technical quality of content display as would occur when receiving high definition video traffic, with 1080 lines of resolution, and converting it to a lower quality standard definition having only 480 lines. Rather than interconnect, switch, and route traffic on an unbiased “best efforts” basis, ISPs have the ability and possibly also the incentive to block and drop content packets, or intentionally slow traffic on the false claim of network congestion.

Senior ISPs managers claim they would never resort to such tactics, even though the FCC sanctioned Comcast for deliberately blocking video traffic that provides an alternative to

11 “Our customers get access to all the online video they want, along with any other Internet content, application, or service they choose -- regardless of its source. Any rumors about blocking Netflix are false.” Joe Waz, 10 Facts About Peering, Comcast and Level 3, ComcastVoices (Nov. 30, 2010); available at: http://corporate.comcast.com/comcast-voices/10-facts-about-peering-comcast-and-level-3.
the company’s offerings. Comcast made matters worse by protesting its innocence and by claiming that any blockage constituted necessary network management, despite clear evidence that no actual congestion had occurred necessitating widespread blockage of only one type of traffic that happened to provide broadband subscribers with alternative access to Comcast’s video content.

A. The FCC’s 2015 Open Internet Order

The FCC has expressed concern that without muscular, common carrier regulatory oversight, ISPs would create fast lanes, offering “better than best efforts” traffic prioritization

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13 “We consider whether Comcast, a provider of broadband Internet access over cable lines, may selectively target and interfere with connections of peer-to-peer (P2P) applications [like BitTorrent] under the facts of this case. Although Comcast asserts that its conduct is necessary to ease network congestion, we conclude that the company’s discriminatory and arbitrary practice unduly squelches the dynamic benefits of an open and accessible Internet and does not constitute reasonable network management. Moreover, Comcast’s failure to disclose the company’s practice to its customers has compounded the harm.” Id. 23 F.C.C.R. at 13,028. “Comcast has deployed equipment across its networks that monitors its customers’ TCP connections using deep packet inspection to determine how many connections are peer-to-peer uploads. When Comcast judges that there are too many peer-to-peer uploads in a given area, Comcast’s equipment terminates some of those connections by sending RST packets. In other words, Comcast determines how it will route some connections based not on their destinations but on their contents; in laymen's terms, Comcast opens its customers’ mail because it wants to deliver mail not based on the address or type of stamp on the envelope but on the type of letter contained therein.” Id. at 13,050-51. “[I]t is our expert judgment that Comcast’s practices do not constitute reasonable network management, a judgment that is generally confirmed by experts in the field. Comcast’s practices contravene industry standards and have significantly impeded Internet users' ability to use applications and access content of their choice. Moreover, the practices employed by Comcast are ill-tailored to the company’s professed goal of combating network congestion. In sum, the record evidence overwhelmingly demonstrates that Comcast's conduct poses a substantial threat to both the open character and efficient operation of the Internet, and is not reasonable.” Id. at 13,054.

14 “Some edge and transit providers assert that large broadband Internet access service providers are creating artificial congestion by refusing to upgrade interconnection capacity at
at a surcharge, while relegateing everyone else to intentionally slow lanes, possibly unable to handle even ordinary traffic volumes. The potential marketplace distortion lies in the expectation that ISPs can exploit market power, particularly for the last mile delivery of content to retail broadband subscribers. Content providers and distributors unable or unwilling to pay their network entrance points for settlement-free peers or CDNs, thus forcing edge providers and CDNs to agree to paid peering arrangements. These parties suggest that paid arrangements resulting from artificially congested interconnection ports at the broadband Internet access service provider network edge could create the same consumer harms as paid arrangements in the last-mile, and lead to paid prioritization, fast lanes, degradation of consumer connections, and ultimately, stifling of innovation by edge providers.” 2015 Open Internet Order, 30 F.C.C.R. 5690.

15 “The record demonstrates the need for strong action. The Verizon court itself noted that broadband networks have ‘powerful incentives to accept fees from edge providers, either in return for excluding their competitors or for granting them prioritized access to end users.’ [quoting Verizon v. FCC, 740 F.3d 623, 645-46 (D.C. Cir. 2014)] Mozilla, among many such commenters, explained that ‘[p]rioritization ... inherently creates fast and slow lanes.’ Although there are arguments that some forms of paid prioritization could be beneficial, the practical difficulty is this: the threat of harm is overwhelming, case-by-case enforcement can be cumbersome for individual consumers or edge providers, and there is no practical means to measure the extent to which edge innovation and investment would be chilled. And, given the dangers, there is no room for a blanket exception for instances where consumer permission is buried in a service plan— the threats of consumer deception and confusion are simply too great.” Id. at 5608.

16 Network neutrality advocates worry that ISPs will intentionally degrade basic broadband service with an eye toward forcing upstream content providers to pay additional fees to ensure that content arrives without disruption even though no such surcharge was necessary previously. “Without Network Neutrality, ISPs will have a strong incentive to reduce investment and make congestion commonplace in order to extract revenues from content providers willing to pay to avoid traffic delays.

Without open Internet rules, ISPs will be granted license to abuse their positions as terminating access monopolies, which is in direct conflict with the Act’s goals for nondiscriminatory interconnection.” Derek Turner, Free Press, Net Neutrality: Investment and Economics, 3-4 (2010); available at: http://www.freepress.net/sites/default/files/fp-legacy/Net_Neutrality_Investment_and_Economics.pdf.

17 “Broadband providers have powerful incentives to accept fees from edge providers, either in return for excluding their competitors or for granting them prioritized access to end users.” Verizon v. Federal Communications Commission, 740 F.3d 623, 645-46 (D.C. Cir. 2014).
surcharges would experience artificial congestion and quality of service degradation, which in turn would deteriorate consumers’ quality of experience. Bear in mind that for video content, consumers have very low tolerance for any form of network performance declines that prevent the seamless display of “must see,” “mission critical” content.

NRAs, such the FCC, anticipate the likelihood for ISPs to pursue price and quality of service discrimination strategies that could harm competition and consumers rather than provide different service tiers and price points. With an eye toward foreclosing harm, the FCC relies on ex ante safeguards to prevent and sanction anticipated market distortions rather than using ex post remedies if and when such abuses occur. Ex ante and ex post remedies have costs, particularly when they fail to detect and remedy a marketplace distortion—a false negative—and when they identify and sanction reasonable price and quality of service discrimination—a false positive.

Rigid ex ante safeguards make it difficult for NRAs to assess whether an access pricing arrangement harms content competition and consumers, or provides customized solutions at a premium price to defray the higher costs incurred in upgrading networks so they can handle

“Although there are arguments that some forms of paid prioritization could be beneficial, the practical difficulty is this: the threat of harm is overwhelming, case-by-case enforcement can be cumbersome for individual consumers or edge providers, and there is no practical means to measure the extent to which edge innovation and investment would be chilled. And, given the dangers, there is no room for a blanket exception for instances where consumer permission is buried in a service plan—the threats of consumer deception and confusion are simply too great.” Protecting and Promoting the Open Internet. GN Docket No. 14-28, Report and Order on Remand, Declaratory Ruling, and Order, 30 F.C.C.R. 5601, 5608 (2015) [hereinafter cited as 2015 Open Internet Order]; affirmed sub nom. United States Telecom Ass’n. v. FCC, 825 F.3d 674 (D.C. Cir. 2016), pet. for en banc rehearing pending.

growing consumer demand for video content. The FCC prohibits ISPs from blocking traffic, throttling delivery speeds and demanding surcharges for prioritizing traffic. \(^{19}\) While such practices typically evidence unreasonable discrimination, the possibility exists that some forms of preferred status provide lawful and desirable enhancements, particularly when real network congestion increases the odds for degraded network performance resulting in consumer dissatisfaction.

A near absolute, or complete prohibition on traffic prioritization precludes last mile ISPs from offering enhanced routing of certain traffic streams prone to congestion such as video streaming of a movie, or live sporting event carried by a broadcast or cable television network. Similarly, the prohibition possibly prevents specific content providers and distributors from securing better and more traffic interconnection opportunities like that achieved by Netflix with Comcast as the parties settled a compensation and traffic exchange dispute that already had triggered consumer irritation. \(^{20}\)

Ex ante safeguards prevent, or substantially burden the offering of reasonable, premium service options that enhance the quality of experience for broadband consumers and offer a higher quality of service to content providers. Ex ante regulation can impose unneeded

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\(^{19}\) “[W]e adopt carefully-tailored rules that would prevent specific practices we know are harmful to Internet openness—blocking, throttling, and paid prioritization—as well as a strong standard of conduct designed to prevent the deployment of new practices that would harm Internet openness.” 2015 Open Internet Order, 30 F.C.C.R. at 5603.

prohibition of desirable, specialized service arrangements, but ex post remedies may arrive too late, well after the harm, so that monetary damages, or other sanctions prove inadequate.  

On three occasions, the FCC has opted to apply ex ante regulatory oversight. The FCC’s 2015 initiative reclassified broadband Internet access as common carriage thereby securing jurisdiction to apply muscular, ex ante measures. In 2016, an appellate court approved the FCC’s reclassification of broadband access opting not to second guess the Commission’s new rationales for expanding its regulatory reach.

Reclassification offered the FCC the opportunity to establish clear jurisdiction for applying common carrier regulatory oversight of ISPs. However, it also has generated vigorous opposition to the FCC’s initiative even though the Commission volunteered to forbear from applying many regulations absent compelling circumstances. A Republican majority at the FCC likely will seek to eliminate, or substantially reduce network neutrality regulation.

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22 “[W]e concurrently exercise the Commission’s forbearance authority to forbear from application of 27 provisions of Title II of the Communications Act, and over 700 Commission rules and regulations. This is a Title II tailored for the 21st century, and consistent with the ‘light-touch’ regulatory framework that has facilitated the tremendous investment and innovation on the Internet.” 2015 Open Internet Order, 30 F.C.C.R. at 5603.

23 “[P]roof of market failure should guide the next Commission’s consideration of new regulations. And the FCC should only adopt a regulation if it determines that its benefits outweigh its costs.
The FCC has emphasized the need for narrowly crafted rules designed to “prevent specific practices we know are harmful to Internet openness—blocking, throttling, and paid prioritization—as well as a strong standard of conduct designed to prevent the deployment of new practices that would harm Internet openness.” 24 The Commission emphasized that ISPs have both the incentive and ability to leverage access in ways that can thwart the virtuous cycle of innovation and investment in the Internet ecosystem:

The key insight of the virtuous cycle is that broadband providers have both the incentive and the ability to act as gatekeepers standing between edge providers and consumers. As gatekeepers, they can block access altogether; they can target competitors, including competitors to their own video services; and they can extract unfair tolls.25

The FCC considers it essential that ISPs not have the ability to exploit Internet access in anticompetitive ways that would reduce demand for Internet services.26 To achieve that goal, the Commission established a clear, ISP nondiscrimination rule in its 2015 Open Internet Order:

The Title II Order [also referred to as the 2015 Open Internet Order], of course, failed to respect these principles. There was no evidence of systemic failure in the Internet marketplace. . . . On the day that the Title II Order was adopted, I said that ‘I don’t know whether this plan will be vacated by a court, reversed by Congress, or overturned by a future Commission. But I do believe that its days are numbered.’ Today, I am more confident than ever that this prediction will come true.” Remarks of FCC Commissioner Ajit Pai Before The Free State Foundation’s Tenth Anniversary Gala Luncheon, Washington, D.C. (December 7, 2016); available at: https://www.fcc.gov/document/commissioner-pai-remarks-free-state-foundation-luncheon.

24 2015 Open Internet Order at 5603.

25 Id. at 5608.

26 “Broadband providers’ networks serve as platforms for Internet ecosystem participants to communicate, enabling broadband providers to impose barriers to end-user access to the Internet on one hand, and to edge provider access to broadband subscribers on the other. . . .[T]he record provides substantial evidence that broadband providers have significant bargaining power in negotiations with edge providers and intermediaries that depend on access to their networks because of their ability to control the flow of traffic into and on their networks. Another way to describe this significant bargaining power is in terms of a broadband provider’s position as gatekeeper—that is, regardless of the competition in the local market for broadband Internet
Any person engaged in the provision of broadband Internet access service, insofar as such person is so engaged, shall not unreasonably interfere with or unreasonably disadvantage (i) end users’ ability to select, access, and use broadband Internet access service or the lawful Internet content, applications, services, or devices of their choice, or (ii) edge providers’ ability to make lawful content, applications, services, or devices available to end users. Reasonable network management shall not be considered a violation of this rule. 27

The nondiscrimination rule establishes an expectation that ISPs operate as neutral conduits for content without the ability to favor, or disfavor content. On one hand, nondiscrimination rules work to prevent ISPs from providing preferential and superior handling of traffic generated by a corporate affiliate, or a third party willing to pay a surcharge. But on the other hand, the rules largely prevent ISPs from providing upstream content providers with opportunities to secure expedited treatment of traffic that may need such comparatively better processing to ensure superior quality of service. While the rules create the risk of sanctions for generating artificial congestion to extort higher payments from content providers, they also may sanction benign, or desired enhancements when actual congestion could otherwise result in degraded service.

The nondiscrimination rule and prohibition on prioritizing traffic also generate uncertainty about what ISPs can and cannot do to tier and differentiate service. For example, the

access, once a consumer chooses a broadband provider, that provider has a monopoly on access to the subscriber. . . . Broadband providers can exploit this role by acting in ways that may harm the open Internet, such as preferring their own or affiliated content, demanding fees from edge providers, or placing technical barriers to reaching end users. Without multiple, substitutable paths to the consumer, and the ability to select the most cost-effective route, edge providers will be subject to the broadband provider’s gatekeeper position.” Id. at 5629.

27  Id. at 5609. The FCC defines reasonable network management practice as one having “a primarily technical network management justification, but does not include other business practices. A network management practice is reasonable if it is primarily used for and tailored to achieving a legitimate network management purpose, taking into account the particular network architecture and technology of the broadband Internet access service.” Id. at 5611.
FCC has expressed concerns about zero rating of the wireless traffic generated by a corporate affiliate and content providers willing to pay a surcharge. 28 Such arrangements can reduce consumers’ out of pocket costs, but they also may distort the competitive marketplace for different types of content by making zero rated content comparatively more attractive simply because downloading it does not debit a monthly data cap.

In addition to the specific prohibitions on blocking, throttling, and paid prioritization, the FCC established a general prohibition on ISP practices that would unreasonably interfere with, or disadvantage downstream consumers and upstream edge providers of content, applications and services. The Commission will consider on a case-by-case basis whether an ISP has engaged in a practice “that unreasonably interfere[s] with or unreasonably disadvantage[s] the ability of consumers to reach the Internet content, services, and applications of their choosing or of edge providers to access consumers using the Internet.” 29

The Commission applied a more open-ended evaluation than its previously proposed legal standard prohibiting commercially unreasonable practices contained in its 2014 Open

28 “Mobile broadband providers are experimenting with a variety of sponsored data and zero rating initiatives. While this dynamic environment has benefited consumers, these business arrangements may raise many of the same economic and public policy issues involving network owners that the Commission has long considered. In particular, sponsored data offerings by vertically integrated mobile broadband providers may harm consumers and competition in downstream industry sectors by unreasonably discriminating in favor of select downstream providers, especially their own affiliates.” Wireless Telecommunications Bureau Report: Policy Review of Mobile Broadband Operators’ Sponsored Data Offerings for Zero-Rated Content and Services, 17 (Jan. 9, 2017); available at: https://transition.fcc.gov/Daily_Releases/Daily_Business/2017/db0111/DOC-342987A1.pdf [hereinafter cited as 2017 Wireless Telecommunications Bureau Zero Rating Report].

29 Id. at 5659.
Internet NPRM. The FCC concluded that it should “adopt a governing standard that looks to whether consumers or edge providers face unreasonable interference or unreasonable disadvantages, and makes clear that the standard is not limited to whether a practice is agreeable to commercial parties.”

The FCC reported that it would use a “no-unreasonable interference/disadvantage” standard to evaluate controversial subjects including the lawfulness of sponsored data arrangements where an ISP accepts advertiser payment in exchange for an agreement not to meter and debit the downstream traffic delivery.

30 “Based on the record before us, we are persuaded that adopting a legal standard prohibiting commercially unreasonable practices is not the most effective or appropriate approach for protecting and promoting an open Internet.” Id. at 5665.

31 Id. at 5665. The FCC identified a number of factors it will consider in future evaluations. These include an assessment whether a practice allows end-user control and is consistent with promoting consumer choice, its competitive effect, whether consumers and opportunities for free expression are promoted or harmed, the effect on innovation, investment, or broadband deployment, whether the practice hinders the ability of end users or edge providers to use broadband access to communicate with each other and whether a practice conforms to best practices and technical standards adopted by open, broadly representative, and independent Internet engineering, governance initiatives, or standards-setting organization. Id. at 5661-65.

32 “Thus, the Order adopts the following standard: Any person engaged in the provision of broadband Internet access service, insofar as such person is so engaged, shall not unreasonably interfere with or unreasonably disadvantage (i) end users' ability to select, access, and use broadband Internet access service or the lawful Internet content, applications, services, or devices of their choice, or (ii) edge providers' ability to make lawful content, applications, services, or devices available to end users. Reasonable network management shall not be considered a violation of this rule.” Id. at 5609.

33 “While our bright-line rule to treat paid prioritization arrangements as unlawful addresses technical prioritization, the record reflects mixed views about other practices, including usage allowances and sponsored data plans. Sponsored data plans (sometimes called zero-rating) enable broadband providers to exclude edge provider content from end users' usage allowances. On the one hand, evidence in the record suggests that these business models may in some instances provide benefits to consumers, with particular reference to their use in the provision of mobile services. Service providers contend that these business models increase choice and lower costs for consumers. . . . On the other hand, some commenters strongly oppose sponsored data
The Commission also will use this standard to consider the lawfulness of data caps that tier service by the amount of permissible downloading volume. In both instances, the FCC sees the potential for an ISP to create artificial scarcity to extract higher revenues, by favoring corporate affiliates and third parties willing to pay a surcharge. Additionally, the Commission worries that data caps have the potential for disadvantaging competitors by creating disincentives for consumers to try new video programming options, particularly if a zero rated ISP option exists. On the other hand, the Commission also recognizes that service tiering can promote innovation and new, customized services.

B. The D.C. Circuit Court of Appeals Affirms the FCC

On appeal to the District Court of Appeals for the District of Columbia, the FCC defended its legal right to reclassify services in light of changed circumstances. The Commission had to convince the court that the Communications Act authorizes service reclassifications, or lacks specificity thereby allowing an expert regulatory agency to clarify ambiguities. By a 2-1 vote, reflecting vastly different legal philosophies and acceptance of the FCC’s rationales, assumptions and evidence, the court rejected all challenges to the FCC’s Open Internet Order.34

The majority considered its review function quite limited. The court opted to apply ample case precedent supporting deference to regulatory agency expertise on both procedural and plans, arguing that “the power to exempt selective services from data caps seriously distorts competition, favors companies with the deepest pockets, and prevents consumers from exercising control over what they are able to access on the Internet,” again with specific reference to mobile services.

[W]e will look at and assess such practices under the no-unreasonable interference/disadvantage standard, based on the facts of each individual case, and take action as necessary. . . Id. at 5667-68.

34 United States Telecom Ass’n v. FCC, supra n. 1.
substantive areas. In a nutshell, the majority opted not to second guess the FCC and expressed support for the Commission’s interpretation of law and its assessment of how consumers access the Internet and what they expect from service providers. This decision supports a rare instance where the FCC substantially expands its regulatory wingspan, despite the general trend toward less government oversight.

35 “[W]e think it important to emphasize two fundamental principles governing our responsibility as a reviewing court. First, our “role in reviewing agency regulations . . . is a limited one.” Id. 825 F.3d at 696-97, quoting Ass’n of American Railroads v. Interstate Commerce Commission, 978 F.2d 737, 740 (D.C. Cir. 1992). “Our job is to ensure that an agency has acted “within the limits of [Congress’s] delegation” of authority, Chevron, 467 U.S. at 865, and that its action is not “arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law,” 5 U.S.C. § 706(2)(A). Critically, we do not “inquire as to whether the agency’s decision is wise as a policy matter; indeed, we are forbidden from substituting our judgment for that of the agency.” Ass’n of American Railroads, 978 F.2d at 740 (alteration and internal quotation marks omitted). Nor do we inquire whether “some or many economists would disapprove of the [agency’s] approach” because “we do not sit as a panel of referees on a professional economics journal, but as a panel of generalist judges obliged to defer to a reasonable judgment by an agency acting pursuant to congressionally delegated authority.” City of Los Angeles v. U.S. Department of Transportation, 165 F.3d 972, 978 (D.C. Cir. 1999).” Id. 825 F.3d at 697.

36 The court supported the FCC’s determination that Broadband Internet Access constitutes a separate and standalone service vis a vis the information services consumers acquire via telecommunications service links. “That consumers focus on transmission to the exclusion of add-on applications is hardly controversial. Even the most limited examination of contemporary broadband usage reveals that consumers rely on the service primarily to access third-party content.” Id. 825 F.3d at 698. The court also noted that Broadband Internet Access providers use information services to facilitate links to content, but agreed with the FCC that such reliance does not convert the telecommunications service into an information service.

37 That brings us to our colleague’s suggestion that the Order embodies a ‘central paradox[]’ in that the Commission relied on the Telecommunications Act to ‘increase regulation’ even though the Act was “intended to ‘reduce regulation.’” Concurring & Dissenting Op. at 53. We are unmoved. The Act, by its terms, aimed to ‘encourage the rapid deployment of new telecommunications technologies.’ Telecommunications Act of 1996, Pub. L. 104–104, 110 Stat 56. If, as we reiterate here (and as the partial dissent agrees), section 706 grants the Commission rulemaking authority, it is unsurprising that the grant of rulemaking authority might occasion the promulgation of additional regulation. And if, as is true here (and was true in Verizon), the new regulation is geared to promoting the effective deployment of new telecommunications
The court accepted the FCC’s rationale for reclassification, considering it reasonable in light of how consumers rely on telecommunications links to access content, largely offered by ventures other than the carrier providing access. Additionally, the majority decision considered and rejected many of the objections raised in the partial dissent. In particular, the majority rejected the partial dissent’s reliance on assertions that reclassification would harm carriers’ incentives to invest in infrastructure. The court held that “it was not unreasonable for the Commission to conclude that broadband’s particular classification was less important to investors than increased demand.” The partial dissent endorsed various filings that found flaws in the FCC’s economic and market analysis, but the majority refrained from rejecting the FCC’s overall assessments and replacing them with general criticisms on the appropriateness of the FCC’s analysis.

The court also found no defects in the FCC’s decision to apply its Open Internet access rules to mobile broadband access. The court rejected the rationale that the rules could only apply to fixed services, because the traditional understanding of common carrier delivered Public Switched Telephone Network services only applies to fixed service made available to the public.

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38 “The problem in Verizon was not that the Commission had misclassified the service between carriers and edge providers but that the Commission had failed to classify broadband service as a Title II service at all. The Commission overcame this problem in the Order by reclassifying broadband service—and the interconnection arrangements necessary to provide it—as a telecommunications service.” \textit{Id.} at 713.

39 \textit{Id.} at 710.

40 \textit{Id.} at 710, \textit{quoting} Gas Transmission Northwest Corp. v. FERC, 504 F.3d 1318, 1322 (D.C. Cir. 2007): “We see no reason to second guess these factual determinations, since the court properly defers to policy determinations invoking the [agency’s] expertise in evaluating complex market conditions.” (internal quotation marks and alteration omitted).
The court considered mobile broadband as now generally available to the public as evidenced by the common use of smartphones that provide both voice and data services.41

The court strongly rejected the argument that the FCC’s Open Internet rules impermissibly constrain Internet Service Provider First Amendment freedom:

Common carriers have long been subject to nondiscrimination and equal access obligations akin to those imposed by the rules without raising any First Amendment question. Those obligations affect a common carrier’s neutral transmission of others’ speech, not a carrier’s communication of its own message. 42

The court noted that telephone companies, railroads, and postal services have borne equal access obligations like that now applied to ISPs “without raising any First Amendment issue.” 43

III. Does Zero Rating and Quality of Service Enhancements, or Reductions Constitute Unlawful Discrimination?

Zero rating eliminates out of pocket costs borne by retail broadband subscribers, while downgrading of high definition video traffic to standard definition makes it possible for ISPs to replace metered broadband service with conditionally, unlimited options. Both types of

41 “Aligning mobile broadband with mobile voice based on their affording similarly ubiquitous access, moreover, was in keeping with Congress’s objective in establishing a defined category of “commercial mobile services” subject to common carrier treatment: to ‘creat[e] regulatory symmetry among similar mobile services.’” Id. at 715-16 (citation omitted). “In mobile petitioners’ view, mobile broadband (or any non-telephone mobile service)—no matter how universal, widespread, and essential a medium of communication for the public it may become—must always be considered a ‘private mobile service’ and can never be considered a ‘commercial mobile service.’ Nothing in the statute compels attributing to Congress such a wooden, counterintuitive understanding of those categories.” Id. at 717.

42 Id. at 740.

43 Id. at 730. The court did noted that in some instances, ISPs do create and distribute content, but in such instances common carriage requirements do not apply. “If a broadband provider nonetheless were to choose to exercise editorial discretion—for instance, by picking a limited set of websites to carry and offering that service as a curated internet experience—it might then qualify as a First Amendment speaker. But the Order itself excludes such providers from the rules.” Id. at 743.
enhancements offer new and existing broadband subscribers marketing inducements rather than target specific sources of traffic for favorable, or unfavorable treatment.

Arguably, the FCC’s concern with paid prioritization refers to instances where ISPs divide their networks into premium lanes, capable of providing reliable video delivery, and normal lanes, which previously achieved the same result, but now may not. Zero rating, does not provide better guarantees of traffic delivery and quality of service. Instead, the ISPs creates an attractive financial inducement for broadband subscribers to favor content originating from specific sources, who have sponsored zero rating, and to migrate to more expensive service tiers offering unlimited data, or a higher monthly data allowance.

Deliberate downgrading video resolution comes closer to violating a paid prioritization prohibition. Even though ISPs would not discriminate between sources of high definition video content, they degrade quality of service for all video traffic, absent additional payment. ISPs offer to restore the high definition video feed for all sources, but only if retail broadband subscribers agree to pay more. While targeting subscribers appears to make the option something like a new service tier, typically consumers receive something more, rather than a return to the previous level of service. Instead of offering faster bit delivery speed, or more data downloading, a high definition video surcharge may not even require such enhancements, absent congestion. By degrading non-surcharged paid video traffic, an ISP might have ample network resources to retain high definition carriage without having to invest in additional plant, or even to enhance the speed and bandwidth allocated to handle such traffic.

Paid prioritization can occur when either upstream content sources and distributors accept a surcharge demand based on the assumption that the failure to do so will empower the last mile ISP to degrade traffic delivery. The prohibited practice also can occur when retail broadband
subscribers have to pay an additional fee for retention of high definition video feeds they previously could stream without a surcharge, but subject to a monthly data allowance.

Paid prioritization does not only occur when ventures upstream from the last mile ISP opt to pay a surcharge as insurance against congestion and degraded quality of service, As noted, some wireless carriers now want their retail subscribers to pay to retain high definition video resolution of traffic, a process that could require more bandwidth, higher transmission speeds and possibly deliberate and preferential routing of traffic.

ISPs providing last mile delivery of Internet traffic operate in a two-sided market and have flexibility in deciding how to recoup costs from both downstream retail broadband subscribers and upstream ventures such as ISPs, Content Distribution Networks (“CDNs”) and content creators. Like credit card companies, last mile ISPs can strategically allocate financial burdens between two payment categories to maximize revenues. Credit card companies may

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44 “Platform businesses compete in ‘multi-sided markets.’ For example, video game console companies such as Sony, Nintendo, and Microsoft compete for game developers and users, while payment card companies such as American Express, MasterCard, and Visa compete for merchants and cardholders. Platform businesses must deal with interdependent demand when devising pricing, production, and investment strategies. These strategies can be quite different from non-platform businesses that do not serve mutually dependent customer groups. The optimal price on a particular side of the market, whether measured socially or privately, does not follow marginal cost on that side of the market. Many platform businesses charge one side little or nothing; for example, most operating system vendors collect scant revenue from software developers who use their intellectual property. In many cases, the joint provision of a good that services multiple groups of customers makes the assignment of costs to any one side arbitrary.”

provide consumers with “free” cards and even ones that provide a financial rebate with use. For consumers who pay on time, the credit card company must rely solely on the revenues generated from upstream vendors who pay a fee each time a card is used.

Broadband subsidies offset payments from retail subscribers by stopping the meter that otherwise would debit a monthly data downloading/uploading allowance. Subscribers exceeding their monthly data rate incur a surcharge for such an overage, or they have to make do with throttled service until the next month of service begins. Many wireless data plans typically provide only a few gigabytes of content per month that subscribers will exhaust with the streaming of a few full length movies. With skimpy data service allowances, zero rating options appear particularly attractive.

Massive demand for downloading and streaming video, along with other “over the top” applications have strengthened last mile ISP negotiation leverage with both downstream subscribers and upstream sources and distributors of content. These ISPs have network access pricing power, particularly in nations lacking robust broadband competition, which includes the United States and most developing countries. Even where adequate facilities-based competition


46 “Over-the-top VoIP [and other] services require the end user to obtain broadband transmission from a third-party provider, and providers of over-the-top [services] can vary in terms of the extent to which they rely on their own facilities” 2010 Open Access Order, 25 F.C.C.R. at 17905 n. 48.

47 “We find that advanced telecommunications capability is not being deployed to all Americans in a reasonable and timely fashion.” Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996, as Amended by The Broadband Data Improvement Act, GN Docket No. 15-191, 31 F.C.C.R. 699. ¶1 (2016).
exists, broadband subscribers typically select only one retail ISP to handle all of their broadband traffic. The FCC considers the state of limited competition and consumer selection of one carrier for all broadband service as validating the conclusion that retail ISPs have both the incentive and the ability to exploit their last mile “terminating monopoly” in ways that can harm competition and consumers.

Last mile ISPs have raised broadband subscription rates and have imposed surcharge requirements from major upstream generators of traffic. Rate increases help defray the substantial investment made to handle every growing traffic volume, particularly full motion video, but they also can evidence the ability of last mile ISPs to raise rates without suffering subscriber churn, because no lower cost competitive alternative exists that offers a comparable bit transmission speed and monthly data allowance.

The last mile broadband marketplace lacks facilities-based alternatives in some nations, including the United States, where cable television operators dominate. While other wired and

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48 “The Commission also convincingly detailed how broadband providers’ position in the market gives them the economic power to restrict edge-provider traffic and charge for the services they furnish edge providers. Because all end users generally access the Internet through a single broadband provider, that provider functions as a ‘terminating monopolist,’ with power to act as a ‘gatekeeper’ with respect to edge providers that might seek to reach its end-user subscribers” Verizon v. FCC, 740 F.3d at. 646)(quoting 2010 Open Access Order, 25 F.C.C.R. at 17919).


50 “On January 29, 2016, we released the 2016 Broadband Progress Report, which found that advanced telecommunications capability was not being deployed to all Americans in a reasonable and timely fashion. We based our finding on the determination that, despite some advances in the deployment and availability of advanced telecommunications capability, these advances were not occurring broadly enough, or quickly enough, to satisfy the goals of section 706. In particular, the 2016 Broadband Progress Report noted that approximately ten percent of the population — nearly 34 million Americans — lacked access to fixed advanced
wireless options exist, they each have quality of service and cost handicaps. Most telephone companies have retrofitted copper wire telephone lines to provide slow speed Digital Subscriber Line broadband service that cannot accommodate multiple, simultaneous video users. Some of these companies, such as AT&T and Verizon, now offer a faster and higher capacity option, using fiber optic cables, exclusively, or in combination with existing copper wire plant. However, these companies operate in selected metropolitan areas that collectively do not come close to establishing a national service footprint. Satellite options generally have initial receiving equipment costs, comparatively higher monthly rates and lower data allowances than wired options. Additionally, the length of time it takes to send and receive satellite traffic causes signal delay (latency) problems for some applications.

Zero rating enables last mile ISPs to shift some or all of the total content delivery cost away from retail consumers and onto upstream carriers and sources of content. Retail subscriber surcharges for high definition video delivery enables last mile ISPs to offer more generous monthly data allowances. Both strategies can promote social welfare by increasing the number of telecommunications capability. Further, the 2016 Broadband Progress Report found a persistent urban-rural divide in access to broadband services, with Americans in rural areas and on Tribal lands approximately ten times more likely than those Americans in urban areas to lack access to services able to provide advanced telecommunications capability. The 2016 Broadband Progress Report separately concluded that deployment of advanced telecommunications capability to schools and classrooms continued to lag behind the needs of American students and educators.”

of broadband users, which in turn increases the value of access, an outcome economists label as positive network externalities. \(^{51}\) With more and more subscribers joining the bandwagon, Internet content, accessibility and value increases. \(^{52}\) Additional subscribers, including ones that require inducements, also help carriers recoup substantial sunk costs incurred in erecting a robust network capable of handling peak traffic requirements generated by consumer streaming of video content. Broadband infrastructure requires substantial initial investment, but the marginal cost of traffic switching and transmission traffic from one additional subscriber approaches zero.

On the other hand, both zero rating and high definition video surcharges can distort the marketplace of ideas by creating financial inducements for accessing specific content through a discount, but also financial penalties for accessing video with higher line resolution. In both instances, ISPs tilt the content marketplace by creating financial incentives for consumers to favor subsidized, zero rated content and to eschew high resolution content.

Last mile ISPs can favor, or disadvantage content on the basis of what kind of special financial arrangement they can negotiate. Not every instance of specialized negotiations and surcharge demand would constitute unlawful discrimination, particularly if an ISP can prove that


its carriage of specific traffic triggered an extraordinary burden on network resources. However, there are routing scenarios where even if such a burden existed, the FCC has prohibited content carriage downgrading. For example, when the FCC mandated the transition from analog to digital television, it had a legislative mandate requiring cable television operators to carry high definition signals without any option to downgrade high definition video content to a lower screen resolution.\(^\text{53}\) Note that Congress prohibited content degradation on cable television operators, even though these ventures qualify as private carriers, free of a common carrier mandate to operate in a nondiscriminatory manner.

Network neutrality advocates fear the next “killer application,” or source of “must see” content would not get a fair marketplace trial if such new ventures cannot afford to pay surcharges.\(^\text{54}\) In this scenario, incumbents maintain, or possibly strengthen their market dominance not by offering superior products and services, but by reducing opportunities for startup ventures to acquire market share.\(^\text{55}\) Zero rating “hurts consumers because it allows

\(^{53}\) Sections 614(b)(4)(A) and 615(g)(2) of the Cable Act of 1992, 47 U.S.C. §§ 534(b)(4)(A), 535(g)(2) require cable operators to carry signals of commercial and noncommercial broadcast television stations, respectively, “without material degradation.”


providers to create artificial scarcity of choice and ‘corrupt[s] the growth of online services’” 56
Arguably, a surcharge for receiving high definition content also hurts consumers, because content providers may avoid triggering a surcharge payment decision by degrading the screen resolution of content using a now creating all content in a now inferior and obsolete presentation format.

IV. Content Interference and Network Neutrality

Advocates for strong network neutrality safeguards consider zero rating and video surcharges the latest assaults on an open Internet operating without biased carriers having the motivation to meddle with the speed and quality of their content carriage.57 ISPs have devised many types of pricing plans, 58 but the emphasis appears in upselling existing subscribers to a


more expensive service tier offering a higher data allotment, reducing subscriber cancellation of service (churn) and stimulating greater interest in streaming video services.

In the United States, many zero rating options currently exist, despite vocal opposition by some network neutrality advocates. In its 2015 Open Internet Order, the FCC did not explicitly ban zero-rating, opting instead to use a case-by-case examination whether the tactic harms competition and consumers. This evaluation assesses whether zero rating violates a general prohibition on practices “that unreasonably interfere[s] with or unreasonably disadvantage[s] the ability of consumers to reach the Internet content, services, and applications of their choosing or of edge providers to access consumers using the Internet.”

Stanford Law Professor Barbara van Schewick has made presentations to officials at the FCC asserting that zero rating plans, like that offered by wireless carrier TMobile violate network neutrality principles. She asserts that the arrangement achieves many of the harmful outcomes resulting from practices outlawed by the FCC, e.g., deliberate traffic blocking and slowing as well as offering to prioritize specific traffic for additional compensation. Professor van Schewick argues that zero rating distorts competition, limits user choice, stifles free

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59 As of early 2017, AT&T, Verizon and TMobile had zero rating options available to their millions of wireless subscribers. See 2017 Wireless Telecommunications Bureau Zero Rating Report at 8-10.

60 2015 Open Internet Order, 30 F.C.C.R at 5668.

61 Id. at 5659; The FCC concluded that it should “adopt a governing standard that looks to whether consumers or edge providers face unreasonable interference or unreasonable disadvantages, and makes clear that the standard is not limited to whether a practice is agreeable to commercial parties.” Id. at 5666.

expression and harms innovation. She suggests that TMobile could avoid violating network neutrality principles by offering a zero rating option, at a lower bit transmission speed for all traffic, offering unlimited video service, or expanding the monthly data allowance for all subscribers.

Senior management at the FCC have sent mixed messages to stakeholders. On one hand, former FCC Chairman Thomas Wheeler expressed support for specific zero rating plans, including ones that offer unmetered access to popular video programming sources such as Netflix, YouTube, HBO, ESPN and Hulu as well as music content from such popular sources as Pandora, Rhapsody, iHeartRadio, iTunes Radio, Slacker and Spotify. On the other hand, the Wireless Bureau of the FCC tentatively concluded that some zero rating plans may violate network neutrality rules and requirements. FCC Chairman Ajit Pai unilaterally ordered the termination of further examination of wireless carriers’ zero rating offers.


A. Is Zero Rating Akin to a Toll-free Telephone Number?

Advocates for zero rating consider the option the Internet-equivalent to a toll-free telephone number. The analog makes sense in some ways, but not in others. Both pricing arrangements eliminate, or reduce consumers’ direct, out of pocket costs for accessing a service. Both use payments by an upstream vendor to defray the costs incurred by downstream consumers. As well, each model shows how, in a two-sided market, consumers can avoid, or reduce costs when some vendors agree to defray both the cost of content creation and its delivery. Few object when a “bricks and mortar” vendor offers to waive shipping, handling and other delivery charges that would have raised consumers’ out of pocket costs.

On the other hand, one can readily differentiate the mass media broadcast of advertising to a large audience and a selective subsidy aiming to increase traffic to specific Internet-mediated content and service by individuals. Providers of toll free telephone numbers operate in a robustly competitive marketplace. Some vendors of products and services see a marketing advantage in removing a minor cost which typically constitutes more of an irritant than a barrier to consummation of the transaction. Similarly, removal of a long-distance telephone charge does not explicitly seek to expand the socio-economic range of prospective customers. Vendors absorb telephone toll charges much like they might reimburse customers for vehicle parking fees,
or offer to waive shipping and handling fees for customers reaching an aggregate purchase threshold.

B. Differentiating Free Wi-Fi From Free or Reduced Cost Broadband

Zero rating plans have some parallels with free Wi-Fi access, but significant differences exist as well. Both use subsidies to provide broadband access, and both types of subsidizers expect to accrue something of value in return. Commercial and non-commercial Wi-Fi subsidizers expect to generate either quantifiable benefits, e.g., more coffee sales, or less measurable public benefits, e.g., a more vibrant central business district. Likewise, zero rating providers seek to increase revenues, both in terms of subscriber numbers and revenues as well as advertising revenues. Non-quantifiable benefits include improved public relations and image as a venture that can jointly enhance value for shareholders while also promoting social welfare.

Wi-Fi and zero rated broadband access substantially differ in geographical scope and overall impact. Typically, Wi-Fi access occurs in small islands of connectivity having no way to serve mobile users. Wi-Fi hotspots provide broadband access in specific, fixed commercial (coffee shops) and non-commercial (libraries) locations. Zero rated service offers subsidies to wireless mobile users as well as fixed wireline subscribers throughout a nation. Free Wi-Fi increasingly has become a welcomed amenity while zero rated service is mostly a new marketing strategy. Most Wi-Fi hotspot users like having the opportunity to avoid debiting their expensive monthly wireless data plan as opposed to having first time access to broadband services.

Wi-Fi access typically occurs on an ad hoc, occasional basis, when a user happens to be located within the small “footprint” of access. Subscribers to zero rated services typically use the service frequently and in many locations. Arguably, Wi-Fi access provides a free option to
many users who otherwise could resort to metered service, while zero rated service may constitute the only affordable option available.

V. The Challenge for National Regulatory Authorities

Zero rating offers identifiable and possibly measurable advantages, but also presents harms that are not as easily detected, or assessed. Advocates for zero rating may eventually be able to prove an aggregate increase in broadband wireless access as well as produce statistics identifying improved market penetration. Opponents can identify several negative consequences, but they cannot readily prove causality, nor quantify the harms caused to existing and potential content providers and broadband subscribers.

The impact of purposefully degraded video content carriage has a more easily measured effect. When an ISP reduces video screen resolution unless subscribers pay a surcharge, the carrier has forced a new cost/benefit analysis: subscribers can enjoy more liberal data access, albeit at lower quality. Alternatively, they can pay more to receive content the way creators and distributors intended it to be received. In effect ISPs give with one hand and take with the other. They appear to offer an unmetered, unlimited data access, but in reality slow the data delivery by degrading its eventual display.

Arguably, when ISPs degrade content display, they impede the First Amendment protected rights of content creators to format their offerings in an optimal, but network intensive manner. Requiring additional payment provides the ISP a new opportunity to exploit its

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66 “Though its growth continues to be phenomenal, broadband service providers--acting as Internet gatekeepers--have developed the ability to discriminate against specific content and applications. First, these gatekeepers intercept and inspect data transferred over public networks, then selectively block or slow it. This practice has the potential to stifle the Internet's value as a speech platform by compromising its neutral and open architecture, which has traditionally limited the ability of both public and private entities to engage in censorship.” Andrew Patricka and Eric Scharphorn, Network Neutrality and the First Amendment, 22 Mich. Telecomm. &
intermediary, platform by upselling retail subscribers, or imposing new surcharges on upstream content providers in ways that create financial impediments to maximizing consumer welfare. Congress enacted a prohibition on cable television operator degradation of screen resolution, to promote the migration from analog to a more spectrum efficient digital broadcast format, but perhaps also to foreclose cable operators from conditioning carriage of more bandwidth intensive content on a surcharge borne by upstream video networks, downstream cable subscribers, or both.

Arguably, cable operators could have generated evidence that they needed to make costly infrastructure enhancements to facilitate the carriage of uncompressed, high definition video content, coupled with the need to replace the existing set top box interface between the cable network and subscribers’ television sets. Congress foreclosed the option for even a legitimate cost recovery upcharge. However, even if a legislative prohibition did not exist, one can imagine substantial cable television subscriber resistance to any surcharge based on screen display resolution. 67 Apparently TMobile and other wireless ISPs think they can get away with such an upcharge.

67 Similar pushback occurred when directors, actors and consumers saw how reformatting of movies for television broadcast degraded the viewing experience and even deleted part of the film image from display. See, e.g., University of Nebraska-Lincoln, Frame by Frame, Why Pan
A. Recommended Balancing Safeguards

NRAs flirt with political turmoil and citizen revolt when creating rules and regulations that prevent out of pocket cost savings for consumers, particularly for a product or service increasingly considered essential. Zero rating and conditional, unlimited broadband data plans reduce consumer costs, or at least create the impression of doing so even as the benefits accrue only with the migration to a more expensive service tier, or tolerance for lower resolution, video display.

On balance, significant benefits accruable from zero rating and better data plans warrant inclusion in the collection of lawful carrier strategies for promoting broadband service. Zero rating creates new incentives on the demand side, while most governmental initiatives have concentrated on supply-side stimulation with financial subsidies flowing to carriers. 68 NRAs should embrace zero rating as one of many demand-side stimulation strategies to raise interest in broadband services by people lacking discretionary income, or an understanding of the individual and societal benefits generated by Internet access. NRAs should allow ISPs to couple more liberal data allowances with lower resolution video delivery. However, ISPs must fully explain the tradeoffs, including the disclosure that they will degrade video quality to conserve bandwidth. ISPs should have to confront consumer pushback at deliberate quality of service degradation.

Embracing and supporting zero rating parallels ongoing government efforts to promote greater broadband market penetration with cross-subsidies, typically flowing from existing consumers to some prospective, or impoverished ones. Governments structure universal service funding initiatives to achieve the greatest progress with the least amount of marketplace distortion. Such calibration and attention to detail also should apply to governmental assessment of zero rating and unlimited data initiatives.

A sophisticated assessment of zero rating broadband access and video degradation rejects exaggerated claims that subsidies will dismantle an open Internet, thwart innovation and eliminate incentives for innovation. Such scrutiny also dispels the summary conclusion that zero rating and video degradation cannot possibly cause any harm to consumers, competition and the marketplace of ideas. If completely left to the whims and marketing strategies of major incumbent carriers and content providers, subsidies can bolster the status quo and make it even more unlikely for a disruptive technology, content source or application creator to acquire a sustainable market share. On the other hand, a complete prohibition prevents creative and welfare enhancing pricing arrangements and strategies to stimulate demand.

NRAs should not rely on ex ante rules that bar subsidies and provide definitions that attempt to identify harmful practices. Instead, they should provide a forum for timely resolution of complaints when and if they arise. NRAs will continue to struggle to find a lawful way to impose open Internet rules calibrated to sanction only harmful quality of service and price discrimination without creating investment disincentives. Rather than concentrate on setting rules, they should emphasize dispute resolution.