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# Meet the New Scarcity: A First Amendment Framework for Regulating Access to Digital Media Platforms

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**MEET THE NEW SCARCITY: A FIRST AMENDMENT FRAMEWORK FOR  
REGULATING ACCESS TO DIGITAL MEDIA PLATFORMS**

John Blevins\*

*Digital media platforms such as broadband networks and search engines are increasingly viewed as “gatekeepers” that enjoy disproportionate influence over modern speech. Policymakers have responded by adopting regulations to ensure nondiscriminatory access to these platforms. This article examines the intersection of these new access regulations with the First Amendment. The literature continues to analyze these questions through the lens of traditional media technologies such as newspapers and broadcast television. Digital networks, however, differ from these prior technologies in critical, qualitative ways. First Amendment analysis of access regulations must therefore be updated to reflect these technological differences. Specifically, it must recognize the layered infrastructure of digital networks, and the significant differences between network-layer platforms and application-layer platforms. Accordingly, I propose a new conceptual framework—“infrastructural scarcity”—for analyzing First Amendment challenges of access regulations. My proposed framework better reflects modern technological realities, and synthesizes the competing theoretical approaches of the “positive rights” and “negative rights” literature in new ways.*

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INTRODUCTION

In 1967, Jerome Barron warned that private media owners enjoyed too much control over the platforms that distributed media content.<sup>1</sup> His fears helped inspire the “media access” movement,<sup>2</sup> which argued for a broader and more flexible conception of the First Amendment that incorporated the interests not merely of the regulated speaker, but the public audience as well.<sup>3</sup> Under this view, the government could—consistently with the First Amendment—ensure broad public access to media platforms and content through regulation.

Newspapers and broadcasters, however, no longer dominate the information landscape as they did in Barron’s day. Broadband networks are increasingly competing with—and replacing—traditional print and video platforms. Online platforms such as social networking sites and search engines are also evolving into major distributors of media content.<sup>4</sup> In short, digital media platforms are becoming the new foundations of modern speech.

These new shifts, however, have generated familiar fears that private platform owners enjoy too much control over these vital inputs of modern speech. Under this view, companies like Google, Facebook, and Verizon Wireless are evolving into new “gatekeepers.”<sup>5</sup> Policymakers are

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<sup>1</sup> Jerome A. Barron, *Access to the Press: A New First Amendment Right*, 80 HARV. L. REV. 1641 (1967). See also Jack M. Balkin, *Media Access: A Question of Design*, 76 GEO. WASH. L. REV. 933, 934 (2008) (“[Barron] argued that freedom of speech . . . was at greatest risk not from state suppression of speech but from private suppression from mass media.”).

<sup>2</sup> Adam Theiner, *Net Neutrality Regulation & the First Amendment*, TECHNOLOGY LIBERATION FRONT, Dec. 9, 2009, <http://techliberation.com/2009/12/09/net-neutrality-regulation-the-first-amendment>.

<sup>3</sup> See, e.g., Ellen P. Goodman, *Media Policy and Free Speech: The First Amendment at War With Itself*, 35 HOFSTRA L. REV. 1211, 1261 (2007) (“The First Amendment rights of speakers, [Barron] suggested, should be balanced against listeners’ First Amendment interests in a robust speech environment.”). See also *infra* text accompanying notes 58-60.

<sup>4</sup> Balkin, *supra* note 1, at 936-38; Neil Weinstock Netanel, *New Media in Old Bottles? Barron’s Contextual First Amendment and Copyright in the Digital Age*, 76 GEO. WASH. L. REV. 952, 953 (2008) (“Traditional mass media also face growing competition from a variety of new media enterprises.”).

<sup>5</sup> Dawn C. Nunziato, VIRTUAL FREEDOM: NET NEUTRALITY AND FREE SPEECH IN THE INTERNET AGE 1-23 (2009); Oren Bracha & Frank Pasquale, *Federal Search Commission? Access, Fairness and Accountability in the Law of Search*, 93 CORNELL L. REV. 1149, 1163 (2008) (explaining argument in literature that “network gatekeepers,

therefore considering—and adopting—regulations that would ensure nondiscriminatory access to these digital platforms. The two most important regulations are network neutrality requirements (nondiscriminatory access to broadband networks) and search neutrality requirements (nondiscriminatory access to search engines).<sup>6</sup> The platform owners, in turn, have already raised First Amendment objections to such regulations.<sup>7</sup> The media access debate, it seems, has officially entered the Facebook era.

In this article, I examine the intersection of these new platform access regulations with the First Amendment. The literature has split into two broad camps on these First Amendment questions.<sup>8</sup> The divide

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who exercise control over the Internet’s technological bottlenecks, constitute the new speech intermediaries”); James Grimmelman, *The Google Dilemma*, 53 N.Y.L. SCH. L. REV. 939, 940 (2008/2009) (“Whoever controls the search engines, perhaps, controls the Internet itself.”); Sascha D. Meinrath, James W. Losey & Victor W. Pickard, *Digital Feudalism: Enclosures and Erasures from Digital Rights Management to the Digital Divide*, 19 COMMLAW CONSPECTUS, 423, 426 (2011) (arguing that current trends will “limit[] democratic freedoms while enriching an oligopoly of powerful gatekeepers”); Netanel, *supra* note 4, at 953 (stating that “bulk of scholarly and activist attention” has moved to ensuring “access to the conduits of digital communications”); Christopher S. Yoo, *Free Speech and the Myth of the Internet as an Unintermediated Experience*, 78 GEO. WASH. L. REV. 697, 697 (2010) (“In recent years, concerns about the role of Internet intermediaries have continued to grow.”); Editorial, *The Google Algorithm*, N.Y. TIMES, July 14, 2010 (calling Google “the gatekeeper of the Internet”).

<sup>6</sup> Applications of Comcast Corporation and NBC Universal for Consent to Assign Licenses (*Comcast-NBC Order*), 26 FCC Rcd 4238, 4240-41 (2011) (memorandum opinion and order) (adopting various nondiscrimination requirements and conditions as part of Comcast/NBC Universal merger); Preserving the Open Internet (*2010 Open Networks Order*), 25 FCC Rcd 17905, 17906 (2010) (report and order) (adopting formal network neutrality regulations); American Recovery and Reinvestment Act of 2009, Pub. L. No. 111-5, §6001(j), 123 Stat. 115 (2009) (requiring that recipients of broadband stimulus grants comply with “non-discrimination and network interconnection obligations”); Comcast Network Management Practices Order (*2008 Comcast Order*), 23 FCC Rcd 13028, (2008) (memorandum opinion and order) (requiring Comcast to adopt remedial measures for its interference with peer-to-peer applications); Service Rules for the 698-746, 747-762 and 777-792 Bands (*700 MHz Auction Order*), 22 FCC Rcd 15289, 15294. (2007) (adopting nondiscrimination requirements for licensee of C Block wireless spectrum).

<sup>7</sup> Both Verizon and MetroPCS have challenged the FCC’s recent network neutrality order in court, citing both statutory and constitutional violations. Howard Buskirk, *MetroPCS Will Ask D.C. Circuit to Overturn Net Neutrality Order*, COMM. DAILY, Jan. 26, 2011; Howard Buskirk, Adam Bender & Jonathan Make, *Verizon Files Quick Appeal of FCC’s Net Neutrality Order*, COMM. DAILY, Jan. 20, 2011. See also *infra* text accompanying note 35.

<sup>8</sup> By “literature,” I refer primarily to scholarly works, though I also include regulatory comments filed by industry and public interest groups.

largely tracks the theoretical fault lines of the traditional media access debate in which “negative rights” approaches competed with “positive rights” approaches.<sup>9</sup> Despite their disagreements, however, both camps continue to conceptualize their arguments in terms of the older media access debate and the platform technologies associated with it.<sup>10</sup> Both camps therefore fail to fully incorporate the realities of modern network infrastructure and its “layered” design into their analyses.<sup>11</sup> For this reason, the literature’s analogies to older media technologies and precedents need to be updated for the digital age.

In this article, I propose a new analytical framework—“infrastructural scarcity”—to govern First Amendment challenges to access regulations of digital media platforms.<sup>12</sup> This framework relies heavily upon the idea that different layers of modern digital networks have vastly distinct economic and technological characteristics. Under this framework, courts should defer to access regulations of uncompetitive *network-layer* platforms such as broadband access infrastructure. Regulations of *application-layer* platforms such as search engines, by contrast, should be subjected to higher First Amendment scrutiny. By “network layer,” I refer to physical transmission infrastructure—the “roads” upon which traffic is transmitted. By “application layer,” I refer to platforms like search engines and social networking sites that are themselves (like postal packages) transmitted upon these physical roads.<sup>13</sup>

The conflation of network-layer and application-layer platforms is the foundational error of both the negative and positive rights literature.

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<sup>9</sup> See *infra* Part II.B.2. As I explain below, negative rights theorists generally oppose access regulations, arguing that media platforms are abundant and that platform functions are expressive “editorial” activities. Positive rights theorists, by contrast, support some access regulations, arguing that media platforms are not abundant, and that no editorial discretion is involved.

<sup>10</sup> See also Bracha & Pasquale, *supra* note 5, at 1150 (“In this Article we extend Barron’s inquiry to the most influential gatekeepers of information and ideas in the digital age: Internet search engines.”); James Grimmelman, *Some Skepticism about Search Neutrality*, in THE NEXT DIGITAL DECADE: ESSAYS ON THE FUTURE OF THE INTERNET 440-41 (2011) (“Scholars have begun to adapt Barron’s ideas to online intermediaries, including search engines.”); Rebecca Tushnet, *Power Without Responsibility: Intermediaries and the First Amendment*, 76 GEO. WASH. L. REV. 986, 987 (2008) (exploring “how Barron’s arguments about the vulnerability of individual viewpoints to corporate control remain salient in a vastly changed communications environment”); Thierer, *supra* note 2, (accusing positive rights theorist of having “taken media access theory, put it on steroids, and brought it into the Information Age”).

<sup>11</sup> See *infra* text accompanying note 22.

<sup>12</sup> See *infra* Part V.

<sup>13</sup> See *infra* Part I.A.

The negative rights literature, for instance, wrongly assumes that physical networks have the same technological and economic characteristics as Internet applications.<sup>14</sup> Accordingly, they tend to misinterpret the legal significance of platform abundance. While media platforms are indeed multiplying rapidly, the diversity of *infrastructural* transmission mediums is declining. To use a transportation analogy, the diversity of vehicles may be increasing, but the number of roads is shrinking. The “explosion” of modern media platforms disguises the fact that virtually all of them are, or soon will be, transmitted through a single broadband line controlled by a monopoly cable provider, or by one of two national wireless phone companies.<sup>15</sup>

The positive rights literature, by contrast, makes the opposite mistake. It assumes that Internet applications have the same characteristics as physical networks. Under this view, applications like Google’s search engine and Facebook are “monopoly” “gatekeepers” that require regulation, much like the old television broadcasters of the mid-twentieth century.<sup>16</sup> As I illustrate, however, application-layer platforms are far more competitive and contestable than network-layer platforms, even when a given platform becomes dominant.<sup>17</sup> Access regulations at the application layer are therefore less necessary, and will likely stifle both speech and innovation.

My proposed framework advances existing communications law and First Amendment scholarship in several ways. First, it updates the media access debate by integrating it with network layer models that more accurately reflect modern technology.<sup>18</sup> One implication of adopting a “layers” perspective is that it undermines the negative rights literature’s claim that all platforms should be treated equally under the First

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<sup>14</sup> See *infra* text accompanying notes 106-110.

<sup>15</sup> See *infra* Part III.B.2.

<sup>16</sup> See *infra* text accompanying notes 85-87.

<sup>17</sup> See *infra* Part III.B.2.

<sup>18</sup> Other scholars have (to varying degrees) incorporated the distinctions between physical and content layers in their First Amendment analyses of media regulations. My work expands and builds upon these concepts. See, e.g., Yochai Benkler, *Property, Commons, and the First Amendment: Towards a Core Common Infrastructure*, at 15-21 (Brennan Ctr. For Justice, White Paper for the First Amendment Program Mar. 2011), available at <http://www.benkler.org/WhitePaper.pdf>; Jim Chen, *Conduit-Based Regulation of Speech*, 54 DUKE L.J. 1359, 1362-63 (2005); Ellen Goodman, *No Time for Equal Time: A Comment on Professor Magarian’s Substantive Media Regulation in Three Dimensions*, 76 GEO. WASH. L. REV. 897, 900-04 (2008); Moran Yemini, *Mandated Network Neutrality and the First Amendment: Lessons from Turner and a New Approach*, 13 VA. J.L. & TECH. 1, 16 (2008).

Amendment (“platform neutrality”).<sup>19</sup> In particular, it undermines the claim that the abundance of application-layer platforms makes regulation of network-layer platforms unnecessary. To use an analogy, a rich diversity of automobiles cannot justify abandoning regulations of the highways upon which the automobiles travel.

Second, my framework synthesizes the positive and negative rights media access literature in novel ways. My framework takes the best from both approaches, while avoiding the more problematic features of each.<sup>20</sup> In particular, my framework largely accepts the normative goals of positive rights theorists by protecting access to scarce media platforms in order to promote diversity and democratic participation. However, it implements these goals in a narrowly limited—and more practical—manner informed by negative rights theorists’ skepticism of regulation and its administrative costs.

Third, the new framework provides a balanced theoretical and practical guide for scholars and courts to analyze First Amendment challenges to modern platform regulations.<sup>21</sup> Specifically, the policy considerations underlying the framework will help inform the doctrinal analysis of whether platform functions are “expressive,” whether access regulations are content-neutral, and whether traditional intermediate scrutiny tests can and should be met.

Part I provides an overview of network layers, and distinguishes network-layer platforms from application-layer platforms. Part II illustrates how digital platform regulations are being conceptualized in terms of the “positive” and “negative” rights frameworks of the traditional media access debate and its older technologies. Parts III and IV critique the approaches of both the negative and positive rights literature, respectively, to these questions. Part V introduces and defends the new infrastructural scarcity framework. Part VI applies this new framework doctrinally to modern media technologies, and addresses objections.

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<sup>19</sup> See, e.g., Jim Chen, *From Red Lion to Red List: The Dominance and Decline of the Broadcast Medium*, 60 ADMIN. L. REV. 793, 793 (2008) (rejecting “Red Lion’s conception of conduit-based regulation”); Chen, *supra* note 18, at 1456 (“A separate First Amendment jurisprudence on conduit-based regulation deserves to wither away.”); Christopher S. Yoo, *The Rise and Demise of the Technology-Specific Approach to the First Amendment*, 91 GEO. L.J. 245, 283 (2003) (arguing that packet-switched networks will make “any continued effort to draw distinctions among media . . . senseless”). See also *infra* text accompanying notes 80-81.

<sup>20</sup> See *infra* Part V.B.

<sup>21</sup> See *infra* Part VI.A.

I. PLATFORM ACCESS REGULATIONS AND NETWORK LAYERS

In this article, I ultimately argue that the First Amendment literature fails to incorporate the layered infrastructure of modern digital platforms into its analysis. Accordingly, in this section, I introduce the concept of network layers, and then distinguish between *network-layer* platform regulations and *application-layer* platform regulations. I then introduce the two most important categories of digital platform access regulations: (1) network neutrality requirements, and (2) search neutrality requirements. The former is an example of network-layer platform regulations, while the latter is an example of application-layer platform regulations.

A. *Distinguishing Networks from Applications*

Communications law literature has long conceptualized computer networks in terms of “layers.”<sup>22</sup> Although the literature differs on the appropriate number of layers, all share the basic idea that the physical transmission layer is conceptually distinct from the data being transmitted.<sup>23</sup> To analogize, the Post Office’s physical delivery service is distinct from the content of the envelopes being delivered. In Internet law literature, the physical transmission functionality (the Post Office truck) is associated with the “network” and “logical” layers, while the data itself

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<sup>22</sup> See generally Rob Frieden, *Adjusting the Horizontal and Vertical in Telecommunications Regulation: A Comparison of the Traditional and a New Layered Approach*, 55 FED. COMM. L.J. 207 (2003); John T. Nakahata, *Regulating Information Platforms: The Challenge of Rewriting Communications Regulation from the Bottom Up*, 1 J. TELECOMM. & HIGH TECH. L. 95 (2002); David P. Reed, *Critiquing the Layered Regulatory Model*, 4 J. TELECOMM. & HIGH TECH. L. 281 (2006); Douglas C. Sicker and Lisa Blumensaadt, *Misunderstanding the Layered Model(s)*, 4 J. ON TELECOMM. & HIGH TECH. L. 299 (2006); Douglas C. Sicker & Joshua L. Mindel, *Refinements of a Layered Model for Telecommunications Policy*, 1 J. TELECOMM. & HIGH TECH. L. 69 (2002); Lawrence B. Solum & Minn Chung, *The Layers Principle: Internet Architecture and the Law*, 79 NOTRE DAME L. REV. 815 (2004); Philip J. Weiser, *Law and Information Platforms*, 1 J. TELECOMM. & HIGH TECH. L. 1 (2002); Kevin Werbach, *A Layered Model for Internet Policy*, 1 J. TELECOMM. & HIGH TECH. L. 37, 39-40 (2002); Richard S. Whitt, *A Horizontal Leap Forward: Formulating a New Communications Public Policy Framework Based on the Network Layers Model*, 56 FED. COMM. L.J. 587 (2004).

<sup>23</sup> See, e.g., Yochai Benkler, *From Consumers to Users: Shifting the Deep Structures of Regulation Towards Sustainable Commons and User Access*, 52 FED. COMM. L.J. 561, 562 (2000) (applying three-layer model); Meinrath *supra* note 5, at 431-32 (applying seven-layer OSI model); Werbach, *supra* note 22, at 59 (applying four-layer model).

(the packages) is associated with the “application” and “content” layers. For purposes of this article, I use only the most basic division between the physical “network” layer and the higher-level “application” layer.<sup>24</sup>

Returning to modern digital platforms, the media access literature too often fails to distinguish between *network-layer* platform regulations and *application-layer* platform regulations. Network-layer regulations govern the most fundamental communications platform of all—the physical infrastructure itself. By “fundamental,” I mean that network-layer platforms do not exist within larger platforms. They are the “floor” upon which all other digital platforms and content are transmitted. Examples of network-layer platforms include broadband infrastructure, cable infrastructure, and broadcast spectrum. Regulations of these platforms come in different varieties, but their purpose is generally to prevent discriminatory behavior within the physical transmission functionality. Such regulations might seek to ensure access to the foundational platform itself, or to require that the platform’s transmission function does not discriminate in prohibited ways.

Application-layer platform regulations, by contrast, apply to an entirely different location within the digital network. Unlike foundational network-layer platforms, application-layer platforms are themselves transmitted data. In a sense, they are “platforms within platforms” in that they exist at higher layers within modern network infrastructure. Examples of popular application-layer platforms include Google’s suite of services, iTunes, Facebook, Apple’s “App Store,” MySpace, and Twitter, to name a few.

#### B. *Network Neutrality as Network-Layer Access Regulation*

The term “network neutrality” is an imprecise term that refers to a broader set of nondiscrimination requirements for Internet *access* providers.<sup>25</sup> In general, these requirements would prohibit access providers from discriminating either for or against the data that it transmits through its networks.<sup>26</sup> In some respects, they are digital equal protection

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<sup>24</sup> Brett M. Frischmann & Mark A. Lemley, *Spillovers*, 107 COLUM. L. REV. 257, 293-94 (2007) (“The physical and logical infrastructure both act as essential inputs into downstream production of applications and content, and thus constitute the foundational layers[.]”).

<sup>25</sup> By “access,” I refer to companies that provide physical access to the Internet through wires, cables, and wireless towers. These companies—generally cable and telephone networks—provide the “last mile” networks that provide end users access.

<sup>26</sup> See 2010 *Open Network Order*, *supra* note 6, at 17915-23 (outlining potential forms of discrimination either for or against Internet traffic); Susan P. Crawford, *The*

laws in that they prohibit discrimination for specified reasons. For instance, most network neutrality proposals would allow access providers to block viruses and malware, but would forbid discrimination for anticompetitive reasons (e.g., Comcast could not discriminate against Netflix video streams).<sup>27</sup>

Network neutrality requirements are thus an example of *network-layer* platform regulations. They apply only to access providers—that is, owners of the physical last-mile infrastructure over which all Internet content is transmitted.<sup>28</sup> Their purpose is to prevent these platform owners from leveraging their control over physical network infrastructure either to discriminate against certain data or providers, or to privilege their own offerings.<sup>29</sup> Network neutrality requirements that apply to wireless access providers (such as AT&T Mobility, Verizon Wireless, and Sprint) are also network-layer platform regulations.<sup>30</sup> Here too, the concern is that the wireless carrier—as the physical network owner—may unreasonably discriminate for or against data on its networks.

The First Amendment questions surrounding these requirements have taken on a new urgency following the FCC’s adoption of formal network neutrality regulations in December 2010.<sup>31</sup> In this order, the FCC

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*Internet and the Project of Communications Law*, 55 UCLA L. REV. 359, 395-96 (2007) (“By ‘discrimination,’ I mean allowing network-access providers to treat some traffic or some users differently.”). For general overviews of network neutrality and the policy debates surrounding it, see Angele A. Gilroy, CONGRESSIONAL RESEARCH SERVICE, *Access to Broadband Networks: The Net Neutrality Debate* (Apr. 25, 2011); Jonathan E. Neuchterlein & Philip J. Weiser, DIGITAL CROSSROADS: AMERICAN TELECOMMUNICATIONS POLICY IN THE INTERNET AGE, at 168-79 (2005) (providing overview of network neutrality); Tim Wu & Christopher S. Yoo, *Keeping the Internet Neutral?: Tim Wu and Christopher Yoo Debate*, 59 FED. COMM. L.J. 575 (2007).

<sup>27</sup> The 2010 *Open Network Order* adopted this approach, but warned providers that they must be prepared justify any blocking on these grounds. See *supra* note 6, at 17954 (“Broadband providers may implement reasonable practices to ensure network security and integrity, including by addressing traffic that is harmful to the network.”). Legislative bills that would establish network neutrality requirements have included these exceptions. See Network Neutrality Act of 2006, H.R. 5273, 109th Cong. § 2.8 (2006) (ensuring network operators’ ability to “protect network security”).

<sup>28</sup> See *supra* note 25.

<sup>29</sup> *Comcast-NBC Order*, *supra* note 6, at 4274-76 (justifying conditions requiring nondiscrimination against unaffiliated content); 2010 *Open Networks Order*, *supra* note 6, at 17915-23 (outlining potential incentives and harms of discriminatory transmission).

<sup>30</sup> The FCC’s 2010 *Open Networks Order* did apply some network neutrality requirements to wireless carriers, but they were far less strict than those applied to wireline carriers because wireless is in an “earlier stage in its development”). *Id.* at 17908.

<sup>31</sup> 2010 *Open Network Order*, *supra* note 6.

imposed various types of nondiscrimination requirements on both wireline and wireless broadband access providers.<sup>32</sup> Among other things, these requirements prohibit access providers from blocking lawful content, and (in the case of wireline providers) from “unreasonably discriminat[ing]” against “lawful network traffic.”<sup>33</sup> In its order, the FCC also explicitly addressed and rejected First Amendment objections.<sup>34</sup> The FCC’s conclusions, however, will soon be tested. Almost immediately following the order’s release, Verizon and wireless carrier MetroPCS challenged the FCC’s regulations in court, in part on constitutional grounds.<sup>35</sup>

The larger point, however, is that network neutrality requirements apply to the *network transmission* functionality, and do not apply to content or applications that are transmitted across the network.<sup>36</sup>

### C. *Search Neutrality as Application-Layer Access Regulation*

The term “search neutrality,” by contrast, applies not to access providers, but to online search engines. Search neutrality is a broad term that encompasses a wide range of potential nondiscrimination requirements on a search engine’s internal operations.<sup>37</sup> If enacted, such

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<sup>32</sup> *Id.* at 17992-93 (amending 47 C.F.R. to include nondiscrimination regulations).

<sup>33</sup> *Id.* at 17906.

<sup>34</sup> In doing so, the FCC relied on positive rights rationales that will be discussed in Part II. *Id.* at 17983-85 (noting that “keeping the Internet open to a wide range of information sources is an important free speech interest in its own right”).

<sup>35</sup> See *supra* note 7. Notice of Appeal at 4, *Verizon v. FCC*, No. 11-1014 (D.C. Cir. Jan. 20, 2011). Notice of Appeal at 4, *MetroPCS v. FCC*, No. 11-1014 (D.C. Cir. Jan. 24, 2011). The D.C. Circuit dismissed the cases on procedural grounds as being premature, but the carriers have stated they intend to refile when the regulations become official. Cecelia Kang, *Court Dismisses Verizon Lawsuit Against FCC Net Neutrality Rules*, WASH. POST, POST TECH, Apr. 4, 2011 available at [http://www.washingtonpost.com/blogs/post-tech/post/court-dismisses-verizon-lawsuit-against-fcc-net-neutrality-rules/2011/04/04/AffxDNdC\\_blog.html](http://www.washingtonpost.com/blogs/post-tech/post/court-dismisses-verizon-lawsuit-against-fcc-net-neutrality-rules/2011/04/04/AffxDNdC_blog.html). Various companies (including Verizon) also raised First Amendment arguments in the regulatory comments preceding the FCC’s order. See *2010 Open Networks Order*, *supra* note 6, at 17981-82 & n.449-50; Reply Comments of Verizon and Verizon Wireless at 108-117 (*Verizon Reply Comments*), Preserving the Open Internet, GN Docket No. 09-191 (FCC Apr. 26, 2010).

<sup>36</sup> Reply Comments of Public Knowledge at 22 (*Public Knowledge Reply Comments*), Preserving the Open Internet, GN Docket No 09-191 (FCC Apr. 26, 2010) (clarifying that nondiscrimination rules apply only apply to transmission functionality, not content production).

<sup>37</sup> Frank Pasquale, *Search Neutrality as Disclosure and Auditing*, BALKINIZATION, Feb. 19, 2011 (providing overview of search neutrality and policy arguments). For a general overview of search engine technology, see generally John Battelle, *THE SEARCH: HOW GOOGLE AND ITS RIVALS REWROTE THE RULES OF BUSINESS AND TRANSFORMED*

measures could include disclosure requirements, prohibitions of “discriminatory” search result rankings, and limits on removals from search engine indexes.<sup>38</sup>

Search neutrality requirements are therefore an example of *application-layer* platform regulations. These requirements apply, not to physical network transmission, but to search engine functionality within the application layer. While no formal search neutrality regulations have been passed, both Congress and federal agencies have expressed serious interest in regulating search engines.<sup>39</sup> In practice, the primary target of search neutrality efforts is Google—the world’s leading search engine. Indeed, it is Google’s competitors—particularly Microsoft—who are most aggressively lobbying for search neutrality regulations.<sup>40</sup> Several scholars have also joined the calls for additional regulatory oversight of search engines—some have even proposed a “Federal Search Commission.”<sup>41</sup> In response to these efforts, critics have argued that such regulations would violate the First Amendment.<sup>42</sup>

This article focuses primarily on search engine regulations because most of the legislative and regulatory activity has focused on these particular applications. There are, however, other potential types of

OUR CULTURE (2005); Eric Goldman, *Search Engine Bias and the Demise of Search Engine Utopianism*, 9 YALE J.L. & TECH. 189, 189-92 (2006); James Grimmelman, *The Structure of Search Engine Law*, 93 IOWA L. REV. 1, 6-15 (2007).

<sup>38</sup> NUNZIATO, *supra* note 5, at 149-51; Jennifer Chandler, *The Right to Reach an Audience: An Approach to Intermediary Bias on the Internet*, 35 HOFSTRA L. REV. 1095, 1106-18 (2008).

<sup>39</sup> Jessica Guynn and Jim Puzzanghera, *FTC Launches Investigation of Google*, LOS ANGELES TIMES, June 25, 2011 (“After a chorus of complaints from rivals, federal regulators, state attorneys general and foreign governments are looking at whether its dominance of the Internet is harming consumers and shutting out competitors[.]”); Chris Foresman, *Antitrust Subcommittee to Examine Google Search Ranking System*, ARS TECHNICA, Mar. 14, 2011, available at <http://arstechnica.com/tech-policy/news/2011/03/googles-expanding-influence-sparks-call-for-antitrust-hearings.ars>.

<sup>40</sup> Eric Goldman, *Revisiting Search Engine Bias* 11 (Santa Clara University School of Law Legal Studies Research Paper Series, Paper No. 12-11, 2011), available at <http://ssrn.com/abstract=1860402> (noting that Microsoft “has been very active in marshaling forces against Google”); Sara Jerome, *Report: Microsoft Worried About Search Neutrality*, THE HILL, HILLICON VALLEY, June 15, 2010.

<sup>41</sup> See, e.g., NUNZIATO, *supra* note 5, at 149-51; Bracha & Pasquale, *supra* note 5, at 1151-52; Frank Pasquale, *Internet Nondiscrimination Principles: Commercial Ethics for Carriers and Search Engines*, 2008 U. CHI. LEGAL F. 263, at 266-67; Chandler, *supra* note 38, at 1117-18; Editorial, *The Google Algorithm*, N.Y. TIMES, July 14, 2010.

<sup>42</sup> Yoo, *supra* note 5, at 701-02; Berin Szoka, *First Amendment Protection of Search Algorithms as Editorial Discretion*, TECH. LIBERATION FRONT, June 4, 2009, available at <http://techliberation.com/2009/06/04/first-amendment-protection-of-search-algorithms-as-editorial-discretion>.

application-layer platform access regulations. Professor Jonathan Zittrain, for instance, has suggested that certain social networking sites might be required to maintain open interfaces (application programming interfaces, or “APIs”)<sup>43</sup>—which critics have derided as “API neutrality.”<sup>44</sup> Calls for “social network neutrality” are also beginning to emerge.<sup>45</sup> In addition, federal regulators have recently scrutinized the practices of AT&T and Apple’s mobile “App Store” platform.<sup>46</sup> In particular, the FCC raised questions about whether the initial rejection of Google Voice application had anticompetitive motivations.<sup>47</sup>

The larger point, though, is that these various access regulations all target platforms that exist at the application—as opposed to the network—layer.

## II. PLATFORM ACCESS REGULATIONS AND THE FIRST AMENDMENT

The access regulations described above raise important First Amendment questions. The literature, however, continues to frame these debates in terms of older media technologies that featured prominently in the traditional “media access” debate. In this section, I briefly summarize the media access literature and the First Amendment doctrine surrounding regulations of these traditional media platforms. As I show, the literature is sharply divided between negative rights approaches and positive rights approaches to the First Amendment. Next, I illustrate how the constitutional debates surrounding modern digital platforms continue to be conceptualized in these traditional terms.

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<sup>43</sup> Jonathan Zittrain, *THE FUTURE OF THE INTERNET (AND HOW TO STOP IT)* 184-85 (2008).

<sup>44</sup> Adam Thierer, *Twitter, the Monopolist? Is this Tim Wu’s “Threat Regime” in Action?*, *TECH. LIBERATION FRONT*, July 1, 2011, available at <http://techliberation.com/2011/07/01/twitter-the-monopolist-is-this-tim-wus-threat-regime-in-action>.

<sup>45</sup> Jake Levine, *It’s Time for a Social Network Neutrality*, *BUS. INSIDER*, Jul. 18, 2011, available at <http://www.businessinsider.com/its-time-for-a-social-network-neutrality-2011-7>.

<sup>46</sup> Erica Ogg, *Report: FTC Will Investigate Apple*, *CNET NEWS*, June 11, 2010, available at [http://news.cnet.com/8301-31021\\_3-20007531-260.html](http://news.cnet.com/8301-31021_3-20007531-260.html). In its 2009 public notice, the FCC also sought comment on whether regulating Apple’s App Store would violate the First Amendment.

<sup>47</sup> Chris Foresman, *FCC Probes Google Voice Rejection, AT&T Denies Involvement*, *ARS TECHNICA*, Aug. 3, 2009, available at <http://arstechnica.com/apple/news/2009/08/fcc-probes-google-voice-rejection-att-denies-involvement.ars>.

A. *The “Old” Media Access Debate: Regulations of Traditional Media Platforms*

Media platforms are essentially the conduits through which media content is distributed and consumed. In the age of mass communications, the owners of media platforms have potentially tremendous influence on both the quantity and quality of modern speech.<sup>48</sup> As noted earlier, the fears of this potential influence ultimately gave rise to the “media access” movement. While diverse, the movement generally sought to protect and promote wider public access to media platforms and content—often through formal regulation.<sup>49</sup> The most infamous example is the now-repealed fairness doctrine, which required broadcasters to cover issues of public importance and to provide opportunities for contrasting views to be presented.<sup>50</sup> Other media access regulations, such as program access requirements, remain good law today.<sup>51</sup>

Media access regulations, however, have proven controversial. Critics over the years have challenged both the need and constitutionality of such regulatory measures. One reason the debate has been so contentious is because it implicates foundational assumptions of First Amendment theory.<sup>52</sup> In particular, it raises the question of whether one’s preferred First Amendment theory should be conceptualized in terms of purely negative rights—or, instead, whether it should include an

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<sup>48</sup> Balkin, *supra* note 1, at 938 (“[T]he practical freedom of speech is deeply tied to how these conduits work and what kinds of access and opportunities they offer to ordinary citizens.”).

<sup>49</sup> See, e.g., Angela J. Campbell, *A Historical Perspective on the Public’s Right of Access to the Media*, 35 HOFSTRA L. REV. 1027, 1029-33 (2007); Marjorie Heins & Eric M. Freedman, *Foreword: Reclaiming the First Amendment: Constitutional Theories of Media Reform*, 35 HOFSTRA L. REV. 917, 919-22 (2007); Gregory P. Magarian, *Substantive Media Regulation in Three Dimensions*, 76 GEO. WASH. L. REV. 845, 851-53 (2008); Gregory P. Magarian, *Market Triumphalism, Electoral Pathologies, and the Abiding Wisdom of First Amendment Access Rights*, 35 HOFSTRA L. REV. 1373, 1376-82 (2007); Martin H. Redish & Kirk J. Kaludis, *Redistributive Values and the Democratic Dilemma*, 93 NW. L. REV. 1083, 1083-84 (1999).

<sup>50</sup> Marvin Ammori, *The Fairness Doctrine: A Flawed Means to Attain a Noble Goal*, 60 ADMIN. L. REV. 881, 881-82 (2008).

<sup>51</sup> 47 U.S.C. § 548 (requiring cable operators to make affiliated program available on discriminatory terms to competitors). Program access requirements were explicitly adopted to promote diversity of content. See § 548(a) (“The purpose of this section is to promote the public interest, convenience, and necessity by increasing competition and diversity in the multichannel video programming market[.]”).

<sup>52</sup> For a brief overview of these foundations applied in the media context, see Benkler, *supra* note 18, at 29-32.

affirmative “positive rights” dimension.<sup>53</sup> Because the literature has described the contrast between these theoretical approaches in detail, I provide only a brief overview here.<sup>54</sup>

As its name suggests, the negative rights approach holds that the First Amendment provides only a freedom *from* government action. Under this approach, the First Amendment does not justify affirmative speech-enhancing regulations on private actors, but instead exists only as a check on governmental action.<sup>55</sup> Thus, negative rights theorists tend to emphasize individual autonomy and the dangers of government as their guiding theories.<sup>56</sup> They also generally assume that the only relevant interests in analyzing media regulations are the government’s and the

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<sup>53</sup> Lili Levi, *In Search of Regulatory Equilibrium*, 35 HOFSTRA L. REV. 1321, 1362 (2007) (noting that “current literature reflects a dichotomous view” between negative and positive rights).

<sup>54</sup> For an excellent recent overview of this theoretical literature, see Marvin Ammori, *First Amendment Architecture*, \_\_ WISC. L. REV. \_\_ (2011) (forthcoming) (manuscript at 9, available at <http://ssrn.com/abstract=1791125>). See also Frederick Schauer, FREE SPEECH: A PHILOSOPHICAL ENQUIRY, 80-81 (1982) (distinguishing negative and positive theories of the First Amendment); Frederick Schauer, *Hohfeld’s First Amendment*, 76 GEO. WASH. L. REV. 914, 914-17 (2008) (same); Kathleen M. Sullivan, *Two Concepts of Freedom of Speech*, 124 HARV. L. REV. 143, 144-46 (2010).

<sup>55</sup> For examples of works in the scholarly literature adopting a negative rights approach, see Lillian R. BeVier, *The First Amendment on the Tracks: Should Justice Breyer Be at the Switch*, 89 MINN. L. REV. 1280, 1284-85 (2005) (“[T]he [First] Amendment is a shield, not a sword.”); Charles Fried, *The New First Amendment Jurisprudence: A Threat to Liberty*, 59 U. CHI. L. REV. 225, 234 (1992) (“The Constitution is concerned only with limits on government[.]”); Yoo, *supra* note 5, at 699-700 (“[I]nvoking the First Amendment as requiring governmental intervention to redress private power would stand the First Amendment on its head”). For examples of industry comments adopting a negative rights approach, see Reply Comments of the National Cable & Telecommc’ns Ass’n at 40, Preserving the Open Internet, GN Docket No. 09-191 (FCC Apr. 26, 2010) (arguing that First Amendment is a “strict *limitation* on government, not a broad authorization . . . to regulate private speech in order to promote its own concepts of diversity and variety”); *Verizon Reply Comments*, *supra* note 35 at 108 (arguing that First Amendment’s purpose is “to restrict *government* limitations on private speech, not private speech itself”).

<sup>56</sup> Fried, *supra* note 55, at 233-37 (“Freedom of expression is properly based on autonomy[.]”); Kyle McSlarrow, President & CEO, Nat’l Cable & Telecommcn’s Ass’n, Address at the Media Institute, *Net Neutrality: First Amendment Rhetoric in Search of the Constitution* (Dec. 9, 2009) (arguing that First Amendment “promotes democratic values . . . best by freeing citizens from government regulation of their speech, not by regulating it”); Thierer, *supra* note 2 (“Government—not the private sector—remains the true threat to our liberties.”).

actual speaker being regulated.<sup>57</sup> The interests of the audience are doctrinally irrelevant.

Positive rights theorists, by contract, reject this approach as an excessively narrow conception of the First Amendment. They see the First Amendment as promoting—or even mandating—affirmative policies that protect and *enhance* speech.<sup>58</sup> Accordingly, positive rights theorists tend to emphasize participatory democracy and diversity of voices as their guiding theories.<sup>59</sup> They also generally assume that the public audience’s interests must be considered when analyzing media and communications regulations.<sup>60</sup> In sum, this view holds that courts should consider more than the interests of the speaker being regulated.

Positive rights approaches, however, can be further divided into what I will call “strong positive” and “weak positive” positions. Under the strong positive approach, the First Amendment affirmatively requires certain types of government action that enhance speech. Under this

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<sup>57</sup> Denver Area Educ. Telecommunications Consortium, Inc. v. FCC, 518 U.S. 727, 816 (1996) (Thomas, J., concurring in part and dissenting in part) (“It is the operator’s right that is preeminent.”).

<sup>58</sup> These theories trace back to the work of Alexander Meiklejohn and Jerome Barron, and have been extended today by scholars such as Cass Sunstein, Owen Fiss, and even Justice Stephen Breyer, to name a few. *See generally* Alexander Meiklejohn, POLITICAL FREEDOM: THE CONSTITUTIONAL POWERS OF THE PEOPLE (1948); Barron, *supra* note 1. *See also* Stephen Breyer, ACTIVE LIBERTY: INTERPRETING OUR DEMOCRATIC CONSTITUTION 46-55 (2005); Owen Fiss, LIBERALISM DIVIDED 17-20 (1996). Cass Sunstein, DEMOCRACY AND THE PROBLEM OF FREE SPEECH 48-51 (1993); Justice Stephen G. Breyer, *Introductory Remarks at George Washington Law Review Symposium: Access to the Media—1967 to 2007 and Beyond*, 76 GEO. WASH. L. REV. 819, 823-24 (2008).

<sup>59</sup> NUNZIATO, *supra* note 5, at 29-32; Marvin Ammori, *Beyond Content Neutrality: Understanding Content-Based Promotion of Democratic Speech*, 61 FED. COMM. L.J. 273, 304-05 (2008-09) (“The democracy rationales for free speech focus on speech’s role in ensuring self-government, fostering an informed citizenry, permitting collective decision making, and safeguarding democratic decision-making processes that enable political change.”); C. Edwin Baker, *Keynote Address at the Administrative Law Review Symposium: Does Red Lion Still Roar?*, 60 Admin. L. Rev. 861, 862-64 (2008) (noting instrumental role of First Amendment in promoting democracy); Goodman, *supra* note 3, at 1213-14; Magarian, *supra* note 49, at 1376-82; Cass Sunstein, *Keynote Address at the Administrative Law Review Symposium: Does Red Lion Still Roar?*, 60 ADMIN. L. REV. 767, 771 (2008).

<sup>60</sup> This view reached its judicial highpoint in the broadcast regulation context in *Red Lion Broad. Co. v. FCC*, 395 U.S. 367, 390 (1969) (“It is the right of the viewers and listeners, not the right of broadcasters, which is paramount.”). *See also* Breyer, *supra* note 58, at 824 (“There are thus First Amendment interests on both sides of the question”); Chandler, *supra* note 38, at 1099-1109 (“Listeners, too, have a First Amendment right to receive speech.”).

approach, for instance, the government's failure to provide sufficient support for diverse speech could theoretically violate the First Amendment. Courts, however, have almost completely rejected the strong positive approach, with the possible exception of the public forum doctrine.<sup>61</sup>

The weak positive approach, by contrast, does not require affirmative action by the government. Instead, it implies that certain speech-enhancing regulations should be subjected to relaxed scrutiny. In this respect, the weak positive approach does not fully reject the negative rights approach—it just weakens its bite with respect to regulations it deems speech-enhancing, or that otherwise promote its preferred theories.<sup>62</sup>

Modern First Amendment doctrine in the media access context is a schizophrenic compromise that reflects both approaches to varying degrees. Critically, current doctrine is platform-specific, which means that the level of First Amendment scrutiny depends on the type of technology at issue.<sup>63</sup> Regulations of certain technological platforms such as newspapers trigger strict scrutiny, while regulations of other types of platforms such as broadcast and cable networks trigger more relaxed scrutiny. This platform-specific approach reflects the fact that courts have embraced positive rights approaches (at least weak positive) in certain contexts, and rejected them in others.<sup>64</sup>

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<sup>61</sup> NUNZIATO, *supra* note 5, at 42-48 (stating that public forum doctrine is “powerful embodiment of the affirmative conception of the First Amendment”); Bevier, *supra* note 55, at 1285 (“The public forum doctrine is the only significant exception to the consistent view that the Amendment does not give citizens affirmative claims to government's resources.”); Schauer, *supra* note 54, at 915-16 (“[T]he prevailing doctrinal structure embodies a series of clear choices in favor of negative rights and against positive rights.”).

<sup>62</sup> Ammori, *supra* note 59, at 283 (“[F]ree speech doctrine does and should explicitly distinguish between laws meant to promote favored content (particularly the content necessary for an informed citizenry) and those meant to suppress disfavored content.”).

<sup>63</sup> Angela J. Campbell, *The Legacy of Red Lion*, 60 ADMIN. L. REV. 783, 786 (2008) (criticizing practice of “having the level of constitutional scrutiny turn on . . . medium at issue”); Chen, *supra* note 18, at 1363 (criticizing courts’ “strategy of adjusting First Amendment standards of review in response to putative differences among conduits”); Yoo, *supra* note 19, at 251 (criticizing courts’ “technology-specific approach to the First Amendment”). See also *Red Lion*, 395 U.S. at 386 (“[D]ifferences in the characteristics of new media justify differences in the First Amendment standards applied to them.”); *Kovacs v. Cooper*, 336 U.S. 77, 97 (1949) (noting that each communications medium “is a law unto itself”) (Jackson, J., concurring).

<sup>64</sup> Benkler, *supra* note 18, at 27 (“[A] long line of cases, beginning in *United States v. Associated Press*, through *Red Lion*, the *Turner* cases and the *Denver* case

## MEET THE NEW SCARCITY

Broadcast regulations, for instance, have traditionally enjoyed the least First Amendment protections.<sup>65</sup> In tolerating broadcast regulations, courts have relied on positive rights rationales such as securing wide public access and preventing gatekeeper domination.<sup>66</sup> Specifically, courts have emphasized the need for licensees of “scarce” public spectrum to provide a diverse range of ideas.<sup>67</sup> Courts have also approved (more narrowly) access regulations of cable networks on similar positive rights rationales.<sup>68</sup>

In other technological contexts, however, courts have adopted different approaches. Regulations requiring access to print platforms, for instance, have traditionally triggered strict scrutiny.<sup>69</sup> In this context, courts have rejected the positive rights approaches they had adopted in the

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suggest a rejection of the notion that the First Amendment is concerned *solely* with government power.”).

<sup>65</sup> FCC v. Pacifica, 438 U.S. 726, (1978) (“[O]f all forms of communication, it is broadcasting that has received the most limited First Amendment protection.”); Fox Television Stations v. FCC, 613 F.3d 317, 325 (2d Cir. 2011) (“Broadcast radio and television, however, have always occupied a unique position when it comes to First Amendment protection.”); Heins & Freedman, *supra* note 49, at 927.

<sup>66</sup> See, e.g., FCC v. Nat’l Citizens Comm. for Broad., 436 U.S. 775, 802 (1978) (upholding broadcasting ownership limitations as reasonable means to “enhance the diversity of information heard by the public”) (quoting Nat’l Citizens Comm. for Broad. v. FCC, 555 F.2d 938, 954 (D.C. Cir. 1977); *Red Lion*, 395 U.S. at 392 (“There is no sanctuary in the First Amendment for unlimited private censorship operating in a medium not open to all.”).

<sup>67</sup> *Red Lion*, 395 U.S. at 390 (“Because of the scarcity of radio frequencies, the Government is permitted to put restraints on licensees in favor of others whose views should be expressed on this unique medium.”); Stuart Minor Benjamin, *The Logic of Scarcity: Idle Spectrum as a First Amendment Violation*, 52 DUKE L.J. 1, 105 (2002) (“[D]iversity and access regulations are premised on scarcity.”).

<sup>68</sup> The two best examples are courts’ approval of must-carry and program access requirements in light of First Amendment challenges. See *Turner Broad. Sys. v. FCC (Turner I)*, 512 U.S. 622, 661, 663 (1994) (rejecting strict scrutiny for must-carry regulations because of cable’s “bottleneck monopoly power” and to assure “that the public has access to a multiplicity of information sources”); *Cablevision Sys. Corp. v. FCC*, No. 10-1062, 2011 U.S. App. LEXIS 11697, at \*35-46 (upholding program access rules against First Amendment challenge because of government’s interest in promoting competition in video markets).

<sup>69</sup> See, e.g., *ACLU v. Johnson*, 194 F.3d 1149, (10th Cir. 1999) (“[A]ttempts to regulate the print media have been subject to strict scrutiny[.]”); Barbara A. Cherry, *Utilizing “Essentiality of Access” Analyses to Mitigate Risky, Costly and Untimely Government Interventions in Converging Telecommunications Technologies and Markets*, 11 CommLaw Conspectus 251, 262 n.87 (2003) (“Generally, strict scrutiny applies to the traditional print media; intermediate scrutiny applies to cable companies; and minimal scrutiny applies to broadcasting companies.”).

broadcast context.<sup>70</sup> Finally, access regulations of telephone networks generally trigger no First Amendment scrutiny at all because common carrier transmission is not considered “expressive.”<sup>71</sup>

In sum, First Amendment scrutiny of media access regulations has traditionally varied significantly by the predefined category of technology. Modern digital platforms, however, challenge this traditional platform-specific framework because it is unclear what technological category—if any—they most closely resemble. While courts have addressed regulations of Internet *content*, they have largely yet to wrestle with *access* regulations that apply to new digital platforms.<sup>72</sup> As the next section explains, however, they will soon be forced to do so.

B. *The “New” Media Access Debate: Viewing Regulations of Digital Platforms Through Old Lenses*

Both the negative and positive rights literature is currently analyzing the constitutionality of access regulations through the lens of the traditional media access debate. In particular, the modern debate relies on two concepts—(1) platform abundance and (2) editorial discretion—that continue to be framed in terms of earlier platform technologies and the precedents governing them. In this section, I define each concept, and explain how each is being applied to First Amendment analysis of digital platform regulations.

1. Platform Abundance

The concept of platform abundance has played an important role in the traditional media access debate. It generally refers to the technological characteristics of an individual media platform. In particular, the concept focuses on whether speakers have alternative equivalent outlets if the

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<sup>70</sup> See, e.g., *Miami Herald Publ’g Co. v. Tornillo*, 418 U.S. 241, 254 (1974) (rejecting application of positive rights of access to newspapers).

<sup>71</sup> Stuart Minor Benjamin, *Transmitting, Editing, and Communicating: Determining What “The Freedom of Speech” Encompasses*, 60 DUKE L.J. 1673, 1686-87 (2011) (“[C]ourts have long treated common carriage regimes as not raising First Amendment issues.”); Chen, *supra* note 18, at 1442-43 (“Traditional telephony and its regulation raise no serious First Amendment concerns[.]”).

<sup>72</sup> Even with respect to content, courts have struggled with the appropriate standard. In *Reno v. ACLU*, 521 U.S. 844 (1997), for instance, the Court did not clarify the appropriate standard of review, but instead adopted a case-by-case approach. Yemini, *supra* note 18, at 18 (arguing that *Reno* illustrates “a Court confused by both the technology and the First Amendment challenges it generates”).

platform owner denies access. When a platform is abundant, access regulations are less necessary to enhance speech. If, however, the platform is scarce—meaning that speakers lack access to an equivalent platform—then regulations are arguably more necessary.

This logic of abundance and scarcity is arguably a key foundation of the courts' current platform-specific doctrine. Under modern doctrine, non-abundant platforms generally enjoy less First Amendment protection. Broadcast television spectrum, for instance, was traditionally considered an inherently scarce resource that could only be allocated to a very limited set of entities.<sup>73</sup> Regulations such as the fairness doctrine, equal time rules, and ownership limits all responded to the fear that platform owners (broadcasters) might exert too much control over the scarce medium.<sup>74</sup> Courts applied a similar logic to cable regulations as well. In approving must-carry and program access rules, courts specifically cited the uncompetitive scarce nature of cable infrastructure.<sup>75</sup>

When platforms are abundant, by contrast, First Amendment protections grow stronger. Print platforms are perhaps the best example of abundant platforms—and they, not coincidentally, have enjoyed the strongest constitutional protections.<sup>76</sup> If, for instance, a newspaper denies access to a speaker, there is nothing inherently scarce about the print medium that prevents the speaker from pursuing an alternative outlet. The Supreme Court relied on similar logic to strike down Internet content regulations in *Reno v. ACLU*.<sup>77</sup> There, the Court specifically noted that “the Internet can hardly be considered a ‘scarce’ expressive commodity. It

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<sup>73</sup> It is well recognized that the scarcity of the broadcast spectrum was a theoretical justification of relaxed scrutiny for broadcasting regulations. *FCC v. Fox Television Stations*, 129 S. Ct. 1800, 1820 (2009) (Thomas, J., concurring) (explaining that the “deep intrusion” into broadcasters’ First Amendment rights was “justified based only on the nature of the medium”); Yoo, *supra* note 19, at 265-66.

<sup>74</sup> For arguments that these regulations were motivated by structural concerns, see Goodman *supra* note 18, at 900-01 (arguing that fairness doctrine was “fundamentally tied to the structure of broadcasting at mid-century”).

<sup>75</sup> *Turner Broad. Sys. v. FCC (Turner II)*, 520 U.S. 180, (1997) (Breyer, J. concurring) (arguing that cable network’s physical characteristics “constitutes a kind of bottleneck”); *Turner I*, 512 U.S. at 656 (“[T]he physical connection between the television set and the cable network gives the cable operator bottleneck, or gatekeeper, control[.]”); *Cablevision Sys. Corp.*, 2011 U.S. App. LEXIS, at \*43-44 (program access).

<sup>76</sup> See *supra* note 69; Adam Thierer, *Why Regulate Broadcasting? Toward a Consistent First Amendment Standard for the Information Age*, 15 *COMMLAW CONSPICUOUS* 431, 436 (2007) (“[B]ecause print media are unlicensed and supposedly plentiful, they receive strict First Amendment protections.”).

<sup>77</sup> 521 U.S. 844 (1996).

provides relatively unlimited, low-cost capacity for communication of all kinds.”<sup>78</sup>

With respect to digital platforms, both the negative and positive rights literature relies on these frameworks and analogies to support their policy preferences. The negative rights literature argues that digital platforms are abundant, thus making access requirements unnecessary.<sup>79</sup> Indeed, some negative rights theorists go further and argue that digital platform abundance eliminates the need for *all* platform-specific scrutiny.<sup>80</sup> Instead, courts should apply a platform-neutral doctrine—one that, in practice, applies strict scrutiny to all platform access regulations.

The underlying logic of these arguments is that low-cost digital media platforms essentially eliminate the *access* concerns that animated the early positive rights theorists.<sup>81</sup> Today, anyone with a computer can distribute or read an infinite range of content. This ubiquitous access therefore satisfies the normative goals underlying access regulations. In particular, wide access ensures both that the public will enjoy a wide variety of sources, and that the public can participate in democratic dialogue at very low cost.

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<sup>78</sup> *Id.* at 896.

<sup>79</sup> See, e.g., Thierer, *supra* note 76, at 439 (“[W]e have witnessed the death of scarcity; we now live in a world of information abundance.”); Yoo, *supra* note 5, at 747 (arguing that the “bottleneck rationale . . . almost certainly has no applicability to the Internet” because of abundance). For industry examples, see Reply Comments of AT&T at 172-73 (*AT&T Reply Comments*), Preserving the Open Internet, GN Docket No. 09-191 (FCC Apr. 26, 2010) (“[N]o one could credibly suggest that *the Internet* has any of the “scarcity” properties that underlay the *Red Lion* decision.”).

<sup>80</sup> Chen, *supra* note 19, at 193 (rejecting “Red Lion’s conception of conduit-based regulation”); Chen, *supra* note 18, at 1438 (“This Article rejects a distinct jurisprudence of conduit-based regulation.”); Adam Thierer, *Your Soapbox is My Soapbox!*, TECH. LIBERATION FRONT, May 10, 2005, available at <http://techliberation.com/2005/05/10/your-soapbox-is-my-soapbox-thoughts-on-the-media-access-movement-in-general-and-the-media-democracy-coalitions-bill-of-media-rights-in-particular> (“All media should be treated equally in the eyes of the First Amendment.”); Yoo, *supra* note 19, at 355-56 (arguing that because of technological convergence, “the collapse of the technology-driven approach to the First Amendment appears inevitable”). For industry examples, see Reply Comments of Time Warner Cable at 55 (*TWC Reply Comments*), Preserving the Open Internet, GN Docket No. 09-191 (FCC Apr. 26, 2010) (noting Supreme Court’s recent criticism of “making distinctions regarding First Amendment rights based on the particular technologies employed”) (citing *Citizens United v. FEC*, 130 S. Ct. 876 (2010)).

<sup>81</sup> Yoo, *supra* note 5, at 739 (arguing that “[j]udicial recognition of multiple options for receiving Internet service” makes cable bottleneck rationale inapplicable to “similar restrictions on the Internet”).

Positive rights theorists, by contrast, reach different conclusions—though they apply a similar conceptual framework of abundance. To them, digital platforms are becoming *less* abundant—and thus increasingly uncompetitive.<sup>82</sup> Accordingly, positive rights theorists tend to analogize modern digital platform regulations to older platforms that were less abundant and enjoyed less First Amendment protections—particularly common carrier telephone networks and cable networks.<sup>83</sup> Network neutrality advocates, for instance, have long argued that broadband access infrastructure is uncompetitive and that nondiscrimination protections are therefore required.<sup>84</sup>

More recently, positive rights theorists have argued that Internet *applications* are becoming increasingly uncompetitive as well—much like the broadcasters of a previous age.<sup>85</sup> Accordingly, these new “gatekeeper” application platforms—particularly Google’s search engine—have the ability to impose various harms on modern expression.<sup>86</sup> Indeed, Professor Tim Wu has warned not only that new “monopolies” are emerging in this field, but that information economies such as search and

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<sup>82</sup> See *supra* note 5.

<sup>83</sup> Bracha & Pasquale, *supra* note 5, at 1207-09 (comparing search engines to railroads and public utilities for regulatory purposes); Pasquale, *supra* note 41, at 286-87 (noting infrastructural “parallels between search engines and carriers”); Reply Comments of Communications Workers of America at 13-15, Preserving an Open Internet, GN Docket No. 09-191 (FCC Apr. 26, 2010) (comparing broadband access providers to telephone network and cable providers while distinguishing them from “newspapers, bookstores, and printing presses”); Marvin Ammori, *Net Neutrality and the 21st Century First Amendment*, BALKINIZATION, Dec. 10, 2009 (“Common carrier regulation [is] a nondiscrimination rule analogous to network neutrality[.]”).

<sup>84</sup> See, e.g., Richard S. Whitt, *Evolving Broadband Policy: Taking Adaptive Stances To Foster Internet Platforms*, 17 COMM.LAW CONSPECTUS 417, 432-36 (2009) (explaining characteristics that make these markets “resistant to discipline of competition”).

<sup>85</sup> NUNZIATO, *supra* note 5, at 12-17 (arguing that “Internet search engines . . . also enjoy the sort ‘bottleneck’ or ‘gatekeeper’ control . . . that cable operators enjoy”); Bracha & Pasquale, *supra* note 5, at 1163 (“[N]etwork gatekeepers, who exercise control over the Internet’s technological bottlenecks, constitute the new speech intermediaries.”); Chandler, *supra* note 60, at 1097 (“[T]he chokepoint has now shifted downstream to a class of intermediaries that . . . include search engines, software filters, Internet Service Providers (“ISPs”) that block or filter content, and spam blocklists.”); Tushnet, *supra* note 10, at 987; Neil Netanel, *Is Google the New “Media Monopoly”?*, BALKINIZATION, May 20, 2008 (noting “considerable concentration in some leading new media platforms” such as Google, Facebook, and iTunes), available at <http://balkin.blogspot.com/2008/05/is-google-new-media-monopoly.html>.

<sup>86</sup> For a good overview of the literature’s arguments for (and against) search engine regulation, see Grimmelman, *supra* note 10, at 440-41; Viva R. Moffat, *Regulating Search*, 22 HARV. J. LAW & TECH. 475, 487-90 (2009).

social media are inherently susceptible to evolving into centralized monopoly gatekeepers.<sup>87</sup>

In sum, both camps are applying the logic of platform abundance, but using it to reach different policy conclusions.

## 2. Editorial Discretion

The concept of editorial discretion has also played an important role in the traditional media access debate. The idea is that access regulations become more problematic the more that they impinge on a platform owner's editorial judgment (which is a form of protected expression).<sup>88</sup>

Like platform abundance, the concept of editorial discretion also helps rationalize today's platform-specific doctrine. Requiring access to newspapers and print mediums, for instance, is perhaps the clearest case of interfering with editorial discretion. Unsurprisingly, these regulations generally trigger the most scrutiny.<sup>89</sup> An op-ed page, for instance, can only accommodate a finite set of columns and editorials. Requiring editors to carve out space for third-party access necessarily prevents the editors from including the columns and editorials they would prefer.<sup>90</sup> Further, a newspaper's editorials are more likely to be attributed to the platform owners themselves. Newspaper employees not only author editorials, but also have more complete control over the editing process.

At the other end of spectrum, telephone network regulations (and common carrier regulations more generally) have not traditionally been subject to First Amendment scrutiny. Telephone carriers are not viewed as engaging in editorial expression by merely transmitting voices across their networks, and the public does not attribute the content of voice calls to the telephone network.<sup>91</sup>

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<sup>87</sup> Tim Wu, *In the Grip of the New Monopolies*, WALL ST. J., Nov. 13, 2010. See also Netanel, *supra* note 4, at 982 (“[M]edia, information, and telecommunications markets typically have built-in tendencies towards high levels of concentration and oligopoly.”).

<sup>88</sup> *Tornillo*, 418 U.S. at 255 (“[W]e reaffirm unequivocally the protection afforded to editorial judgment[.]”) (quoting *Pittsburgh Press Co. v. Human Relations Comm'n*, 413 U.S. 376, 391 (1973)).

<sup>89</sup> See *supra* note 69.

<sup>90</sup> The Supreme Court in *Tornillo* relied explicitly upon this rationale. 418 U.S. at 256-57 (arguing that one cost of forced access for replies is “taking up space that could be devoted to other material the newspaper may have preferred to print”).

<sup>91</sup> Benjamin, *supra* note 71, at 1686-87 (“Courts have placed common carriers and other mere conduits at the opposite end of the spectrum from speakers”); Note, *The*

The evolution of the cable and broadcast doctrine are more complicated, but can also be partially understood in terms of editorial discretion. In the cable context, courts relied on editorial discretion in finding that the selection and arrangement of channels should be considered expressive activity.<sup>92</sup> This specific activity was therefore more akin to newspapers' activities than to telephone networks' transmission of voices.<sup>93</sup> The broadcast context, however, is harder to understand. Courts have traditionally upheld regulations (such as fairness doctrine requirements) that quite clearly intruded on editorial discretion. In recent years, however, these regulations have been critiqued, minimally enforced, and even revoked.<sup>94</sup> One reason, arguably, is because courts and policymakers have recognized their impact on editorial discretion.<sup>95</sup>

Moving forward to today's digital platforms, both camps again seek to justify their positions by framing them in terms of editorial discretion. Critically, both camps—despite reaching different conclusions—use the same methodology of analogizing modern platforms to the traditional media platforms described above.

Negative rights theorists—and the communications industry in particular—strongly emphasize the need to protect editorial discretion in opposing access regulations.<sup>96</sup> In doing so, they analogize the

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Message in the Medium, *The First Amendment on the Information Superhighway*, 107 HARV. L. REV. 1062, (1994) (“[A]lthough newspapers can exercise editorial control over everything that appears on their pages, common carriers must transmit all messages regardless of their content.”).

<sup>92</sup> *Turner I*, 512 at 636-37 (“Cable programmers and cable operators engage in and transmit speech, and they are entitled to the protection of the speech and press provisions of the First Amendment.”); Harold Feld, *Whose Line is It Anyway? The First Amendment and Cable Open Access*, 8 COMMLAW CONSPECTUS 23, 30 (2000) (“[The Supreme Court] has recognized that cable operators do exercise a First Amendment right in selecting what content to place upon their cable systems”).

<sup>93</sup> *Denver Area Educ. Telecomm’n Consortium, Inc. v. FCC*, 518 U.S. 727, 816-17 (1996) (Thomas, J., concurring in part and dissenting in part) (justifying cable operators’ First Amendment rights by analogizing them to print media).

<sup>94</sup> The fairness doctrine—rarely enforced—was revoked in the 1980s. Jerome A. Barron, 76 *Jerome A. Barron, Access Reconsidered*, 76 GEO. WASH. L. REV. 826, 829-30 (2008). Further, the Second Circuit recently held that the much criticized indecency regime was unconstitutional. *Fox Television Stations v. FCC*, 613 F.3d 317, 325 (2d Cir. 2011).

<sup>95</sup> Courts are also increasingly recognizing that platform scarcity no longer applies to broadcast regulation. For instance, in striking down indecency regulations this year, the Second Circuit questioned the viability of the scarcity rationale. *Fox*, 613 F.3d at 326-27. See also *Fox*, 129 S. Ct. at 1820-24 (concurring opinion of Justice Thomas questioning traditional rationales justifying broadcast regulations).

<sup>96</sup> *2010 Open Networks Order*, *supra* note 6, at 18074-75 (McDowell, dissenting)

transmission and organization of data to newspaper editors selecting among op-eds, or to cable systems assembling packages of channels.<sup>97</sup> Network nondiscrimination regulations, they argue, would effectively be “forced speech” that would limit the platform owner’s own ability to speak.<sup>98</sup> Several scholars have also specifically opposed search neutrality arguments on the grounds that search engines necessarily involve human editorial judgment.<sup>99</sup>

Positive rights theorists, however, reach the opposite conclusion. To them, access regulations do not impede editorial discretion, but instead enhance speech and promote other normative goals.<sup>100</sup> In arguing that access regulations do not implicate expressive editorial activity, the literature analogizes modern platforms to common carrier telephone service.<sup>101</sup> If, however, such functions are deemed to be expressive editorial activity, the positive rights literature relies heavily on *Turner Broad. Sys. v. FCC*<sup>102</sup> to argue that such regulations are content-neutral

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(arguing that access providers exercise “editorial functions”); Nicholas Bramble, *Ill Telecommunications: How Internet Infrastructure Providers Lose First Amendment Protection*, 17 MICH. TELECOMM. TECH. L. REV. 67, 74-75 (2010) (“The First Amendment argument most salient to [network neutrality requirements is] that broadband providers engage in speech through their ‘editorial organization[.]’”); Yoo, *supra* note 5, at 702-03. For industry comments, see *AT&T Reply Comments*, *supra* note 79, at 170-71 (“broadband providers do exercise significant editorial control”); *TWC Reply Comments*, *supra* note 80, at 52-53; *Verizon Reply Comments*, *supra* note 55, at 111-12.

<sup>97</sup> *2010 Open Networks Order*, *supra* note 6, at 18074-75 (McDowell, dissenting) (adopting analogy to newspapers); Randolph J. May, *Net Neutrality Mandates: Neutering the First Amendment in the Digital Age*, 3 I.S.J.L.P. 197, 203-4 (2007) (arguing that “compelled access mandates akin to the Florida right to access statute at issue in *Tornillo*”); Comments of Time Warner Cable, Inc., Ex. A at 2-3 (commissioned report of Laurence H. Tribe and Thomas C. Goldstein) (*Tribe and Goldstein Report*), Preserving the Open Internet, GN Docket No. 09-191 (FCC Jan. 14, 2010) (analogizing broadband providers to “private newspapers”); *TWC Reply Comments*, *supra* note 80, at 52-53 (analogizing broadband access service to newspapers).

<sup>98</sup> Barbara Esbin, *Net Neutrality: A Further Take on the Debate* at 16, PROGRESS & FREEDOM FOUNDATION (2009) (arguing that network neutrality requirements would “effectively force speech”); Comments of Verizon and Verizon Wireless at 71, Preserving the Open Internet, GN Docket No 09-191 (arguing that nondiscrimination requirements are “forced speech”).

<sup>99</sup> See generally Goldman, *supra* note 37, at 189-92; Yoo, *supra* note 5, at 701-02.

<sup>100</sup> See, e.g., NUNZIATO, *supra* note 5, at 149-51 (noting Google’s “minimal” expression in its search engine function).

<sup>101</sup> See, e.g., Bracha & Pasquale, *supra* note 5, at 1191 (analogizing search engines to physical cable infrastructure).

<sup>102</sup> There are actually two cases that are referred to generically as “Turner.” *Turner Broad. Sys. v. FCC (Turner II)*, 520 U.S. 180 (1997), and *Turner Broad. Sys. v. FCC (Turner I)*, 512 U.S. 622 (1994). In *Turner I*, the Court held that cable companies’

and should survive intermediate scrutiny.<sup>103</sup> (In *Turner*, the Supreme Court upheld must-carry requirements on cable networks as content-neutral under intermediate scrutiny).<sup>104</sup>

In short, both the negative and positive rights literature is borrowing the conceptual frameworks and platform technologies of the older media access debate to analyze today’s digital platform regulations. These analogies are neither wholly irrelevant nor inappropriate. However, as the following Parts argue, the conceptual frameworks need to be technologically updated to better accommodate modern network infrastructure.

### III. CRITIQUING THE NEGATIVE RIGHTS APPROACH

Parts III and IV argue, respectively, that both the traditional negative and positive rights approaches to modern digital platform regulations are inadequate and technologically outdated. In this Part, I critique the negative rights literature, while Part IV critiques the positive rights literature. The fundamental mistake of both approaches is the conflation of network-layer platform regulations with application-layer platform regulations. This flawed assumption leads the negative rights literature to make two key mistakes: (1) to misunderstand and misapply the concept of platform abundance; and (2) to over-rely on the concept of “editorial discretion” with respect to network-layer functionality.

#### A. *The Illusion of Platform Abundance*

##### 1. Different Types of “Abundance”

The basic problem with the negative rights literature’s use of “platform abundance” arguments is that they often treat application-layer

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channel selection was expressive, and that must-carry requirements were content-neutral and thus subject to intermediate scrutiny. *Turner I*, 512 U.S. at 636-68. In *Turner II*, the Court upheld must-carry requirements under intermediate scrutiny. *Turner II*, 520 U.S. at 185.

<sup>103</sup> Feld, *supra* note 92, at 39-40 (arguing that open access requirement would survive intermediate scrutiny); Yemini, *supra* note 18, at 17-20 (stating that “*Turner* [is] most relevant case to an examination of the constitutionality of network-neutrality rules”). Reply Comments of NASUCA (*NASUCA Reply Comments*), Preserving the Open Internet, GN Docket No. 09-191 (FCC Apr. 26, 2010) (relying on *Turner* to support constitutionality of nondiscrimination requirements).

<sup>104</sup> *Turner II*, 520 U.S. at 185.

platform abundance as equivalent to network-layer platform abundance.<sup>105</sup> In reality, however, network-layer platforms are growing increasingly *scarce* at the same time that application-layer platforms are becoming theoretically infinite. To analogize to transportation, the diversity of vehicles may be expanding rapidly, but the number of roads is shrinking.

These trends undermine the logic of platform-neutral scrutiny in a fundamental way. As explained above, platform neutrality assumes that competition among diverse platforms renders current First Amendment doctrine anachronistic and administratively impossible. Because the public can access many types of platforms, there is no need to secure access rights to any one platform—and thus no need to treat functionally similar platforms differently.

If, however, most of these new diverse platforms require access to a shared foundation—a scarce infrastructural platform—then platform neutrality becomes more problematic. Quite simply, application-layer platforms are not substitutes for network-layer platforms. The two are not only distinct, but the latter is a required *input* for the former. In this respect, network-layer platforms are exponentially more important than application-layer platforms.

The negative rights literature, however, consistently suggests that application-layer platform abundance is *sufficient* to justify comprehensive platform-neutrality.<sup>106</sup> For instance, in explaining the new abundance, Adam Thierer writes, “it is now possible to consume the same piece of content via a broadcast TV or radio station, a cable channel, a satellite system, on a DVD player, on a cell phone or other mobile media device, on a portable gaming system, or over the Internet.”<sup>107</sup> Interestingly,

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<sup>105</sup> *AT&T Reply Comments*, *supra* note 79, at 173 (citing Internet’s “millions of information sources” to argue that “Internet can hardly be considered [] ‘scarce[.]’”); *Verizon Reply Comments*, *supra* note 55, at 116-17 (“[T]here is no ‘inherent physical limitation’ on the number of speakers on the Internet”); May, *supra* note 97, at 204 (citing providers’ *content* offerings as evidence that transmission functionality should be protected); McSlarrow, *supra* note 56 (citing abundance of content sites and “trillion unique URLs” to argue against network neutrality); Yoo, *supra* note 5, at 736 (applying *Reno*, a case about application-layer abundance, to argue against applying “scarcity justification” to all Internet intermediary platforms). Courts, in discussing the “Internet,” also fail to distinguish between application-layer and network-layer characteristics. Yemini, *supra* note 18, at 16 (noting that *Reno* “reflects a limited, or at least an outdated, understanding of the medium’s multilayered nature.”).

<sup>106</sup> See *supra* note 100. See also Yoo, *supra* note 19, at 283 (“[T]he eventual conversion of television to packet switched technologies will render any remaining distinctions between the various media technologies meaningless because all of them will in essence become substitutes for one another.”).

<sup>107</sup> Thierer, *supra* note 76, at 443.

however, many of these seemingly abundant platforms—the cell phone, the gaming system, the mobile media device, the Internet, and even broadcast and cable content—all increasingly rely on the same broadband access infrastructure as a shared foundational input.

Another example of layer confusion exists when critics argue that offering application-layer content somehow transforms the network-layer transmission into speech. This view, however, conflates two very distinct platform technologies. For instance, Randolph May writes:

Net neutrality advocates sometimes suggest that today’s major broadband ISPs choose to be mere conduits, so that compelled neutrality would not eliminate any editorial function[. . .]. . . . [Subscribers, however, are] is presented with a broad array of ISP-selected news, financial, entertainment, sports, and other content. Thus, it is inaccurate to suggest that ISPs are not presently functioning as “speakers” in the sense of those traditionally within the ambit of First Amendment protection.<sup>108</sup>

The problem, however, is that May is conflating content with transmission functionality. In short, he is confusing the cars for the roads. The First Amendment quite clearly protects providers—or anyone else—who provides content online. But offering or editing content is completely distinct from the transmission functions that network neutrality regulations would govern. For instance, when Verizon creates a website listing its service plans, that website is higher-layer data that is transmitted—like all other Internet content—across Verizon’s physical network infrastructure.

A related error exists when critics oppose network neutrality by arguing that it is unfair to regulate application-layer platforms differently than network-layer platforms.<sup>109</sup> For instance, Laurence Tribe and Tom

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<sup>108</sup> May, *supra* note 97, at 204.

<sup>109</sup> Reply Comments of Cablevision Systems Corp. at 31, Preserving the Open Internet, GN Docket No. 09-191 (FCC Apr. 26, 2010) (critiquing rules for not reaching application and content providers that “equally have an effect on the free flow and accessibility of information on the Internet”); *Verizon Reply Comments*, *supra* note 55, at 112 (arguing that network neutrality requirements would not apply to “Google, Akamai, and Amazon, even though those providers have a similar capacity to impact consumers’ Internet experience”); Scott Cleland, *Why Google Is Not Neutral*, THE PRECURSOR BLOG,

Goldstein (critics of network neutrality) write that “net neutrality proposals would leave both search engines and browsers unregulated, notwithstanding that they make content-based decisions about users’ access to the Internet far more directly.”<sup>110</sup> Their assumption is that these different platforms are sufficiently similar to justify equivalent regulation. In reality, though, these platforms are quite distinct.

These flawed assumptions will become increasingly problematic as broadband access infrastructure becomes even more important in the years ahead.<sup>111</sup> Indeed, one can imagine a not-too-distant future where virtually every traditional media platform—from television to telephones to cable to newspapers to radio—collapses into a single broadband line running to a consumer’s residence. Looking even further ahead, broadband networks will eventually break out of their traditional confines and expand to our cars, our houses, and other electronic devices. In short, broadband access platforms will only become more important through time.

## 2. The Scarcity of Broadband Access Platforms

Even assuming the negative rights literature recognizes the distinction between networks and applications, it often argues that broadband access infrastructure is itself competitive and abundant.<sup>112</sup> The communications industry in particular has argued strenuously that modern broadband infrastructure is competitive.<sup>113</sup> The implication, of course, is that this competitive abundance will ensure that market forces alone are sufficient to protect public access.

Given the growing importance of broadband access platforms, it is necessary to examine these arguments in some detail. Contrary to many in the industry, I contend that broadband network platforms are not competitive—and that their relative scarcity further undermines the negative right’s literature call for platform-neutral scrutiny. As I show

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Nov. 4, 2009, available at <http://precursorblog.com/content/why-google-is-not-neutral> (“Google should be subject to any FCC open Internet regulations[.]”).

<sup>110</sup> *Tribe and Goldstein Report*, *supra* note 94, at 2.

<sup>111</sup> Benjamin, *supra* note 71, at 1675 (“[W]ith each passing year, more aspects of our lives are encapsulated as bits traveling through wires and over the airwaves.”).

<sup>112</sup> *2010 Open Networks Order*, *supra* note 6, at 18051 (McDowell, dissenting); *Tribe and Goldstein Report*, *supra* note 94, at 4; Yoo, *supra* note 5, at 747.

<sup>113</sup> See, e.g., Comments of Comcast Corporation, Framework for Broadband Internet Service, GN Docket No. 10-127 (FCC July 14, 2011) (noting “dynamic and intensely competitive nature of the broadband Internet service marketplace”); Comments of the United States Telecom Association at 8-11, Preserving the Open Internet, GN Docket No. 09-191 (FCC Jan. 14, 2010) (describing multiple broadband platforms).

below, this lack of competitiveness is both predicted by economic theory, and borne out by the latest empirical data compiled by the FCC and the National Broadband Plan.<sup>114</sup>

Turning first to economic theory, the key point is that broadband access markets—like other network infrastructures—have extremely high barriers to entry. The literature has examined these characteristics in detail, so I provide only a brief summary here.<sup>115</sup> Broadband networks—both wireline and wireless—are capital-intensive enterprises. The initial construction costs are enormous, fixed, and sunk.<sup>116</sup> Further, the ongoing marginal costs of operating a broadband network are miniscule compared to its initial fixed costs.<sup>117</sup> On the demand side, broadband networks also exhibit powerful network effects that help prevent the rise of alternative infrastructural platforms.<sup>118</sup> Switching costs also remain high—and generally require customers to incur startup fees and to arrange for installation.

Taken together, these economic characteristics make it extremely difficult for new entrants to compete with existing network owners—or to pose a credible threat of entry. Indeed, it is no accident that modern broadband networks are essentially updated versions of traditional monopoly infrastructures—cable and telephone—that had already been constructed on a national level with the aid of government subsidies and protections from competition.

Recent empirical data lends further support to the view that these markets are inherently uncompetitive—particularly the data compiled in the FCC’s recent National Broadband Plan (NBP) and other recent administrative reports. With respect to wireline broadband, the NBP reveals that most Americans today can choose between only one of two providers—generally, the local cable provider or the local telephone company.<sup>119</sup> This “duopoly” has long been criticized by regulatory

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<sup>114</sup> See generally FCC, CONNECTING AMERICA: THE NATIONAL BROADBAND PLAN (2010), available at <http://www.broadband.gov/download-plan> (*National Broadband Plan*).

<sup>115</sup> See, e.g., Hannibal Travis, *Wi-Fi Everywhere: Universal Broadband Access as Antitrust and Telecommunications Policy*, 55 AM. U.L. REV. 1697, 1716-17 (2006); Richard S. Whitt, *Evolving Broadband Policy: Taking Adaptive Stances To Foster Internet Platforms*, 17 COMMLAW CONSPPECTUS 417, 432-36 (2009) (explaining characteristics that make these markets “resistant to discipline of competition”).

<sup>116</sup> *National Broadband Plan*, *supra* note 114, at 36.

<sup>117</sup> *Id.* at 433; William J. Kolasky, *Network Effects: A Contrarian View*, 7 GEO. MASON L. REV. 577, 578 (1999) (referring to “high fixed costs” as barrier to entry).

<sup>118</sup> Travis, *supra* note 115, at 1716-17.

<sup>119</sup> *National Broadband Plan*, *supra* note 114, at 37, ex. 4-A (noting that 78% of housing units have two wireline providers available, while only 4% have three providers).

advocates as insufficiently competitive.<sup>120</sup> Even this limited choice, however, masks the reality that millions of Americans have only one provider—or no service at all—according to the FCC’s most recent data.<sup>121</sup>

While these critiques are common in the literature, the more novel development is that the duopoly itself is trending toward a cable monopoly—thus making these markets even less competitive than they already are. Cable companies are currently upgrading their services to provide much faster networks.<sup>122</sup> For various technological reasons, cable infrastructure can currently be modified more cheaply to provide higher speed services than telephone companies’ networks can.<sup>123</sup> The result is that there will soon be only one choice for *higher-speed* wireline service.

The two charts below illustrate this dynamic.<sup>124</sup> The first shows the relative market share of broadband access providers generally. In this chart, cable and telephone providers appear relatively competitive. The second chart, however, shows the market share for *higher-speed* service offerings. As the chart makes clear, the cable industry (symbolized in red) is dominating this emerging market.

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<sup>120</sup> Susan P. Crawford, *Network Rules*, 70 LAW & CONTEMP. PROB. 51, 61 (2007) (noting that “the U.S. market for broadband access is essentially a duopoly”); Nicholas Economides, “*Net Neutrality, Non-Discrimination and Digital Distribution of Content Through the Internet*,” 4 ISJLP 209, 225-26 (Summer 2008); Dawn C. Nunziato, *By Any Means Necessary? The FCC’s Implementation of Net Neutrality*, 8 FIRST AMEND. L. REV. 138, 152-53 (2009).

<sup>121</sup> According to a recent FCC report on rural broadband, approximately 26 million Americans lack access to “broadband” service under the FCC’s current definitions. FCC, BRINGING BROADBAND TO RURAL AMERICA: UPDATE TO REPORT ON A RURAL BROADBAND STRATEGY at 7 (2011). According to the National Broadband Plan, 13% of American housing units have access to one wireline provider, while 5% have zero wireline providers. *National Broadband Plan*, *supra* note 114, at 37, ex. 4-A.

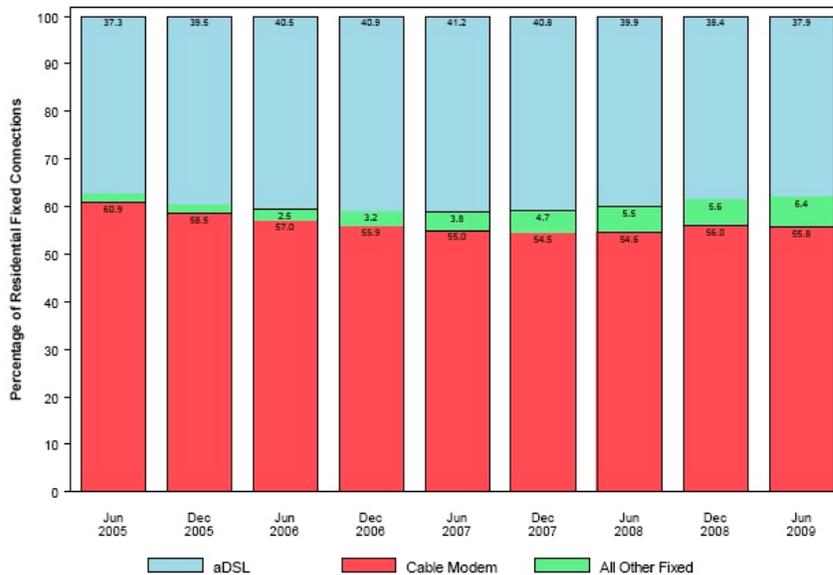
<sup>122</sup> *National Broadband Plan*, *supra* note 114, at 42.

<sup>123</sup> Susan P. Crawford, *The Looming Cable Monopoly*, 29 YALE L. & POL’Y REV. INTER ALIA (2010) (“It is much more expensive to upgrade existing copper phone line connections to fiber (FiOS) than it is to upgrade cable electronics to DOCSIS 3.0.”); Susan Crawford, *Why Comcast/NBCU Matters*, SUSAN CRAWFORD BLOG, Dec. 22, 2010, available at <http://scrawford.net/blog/why-comcastnbcu-matters/1428>.

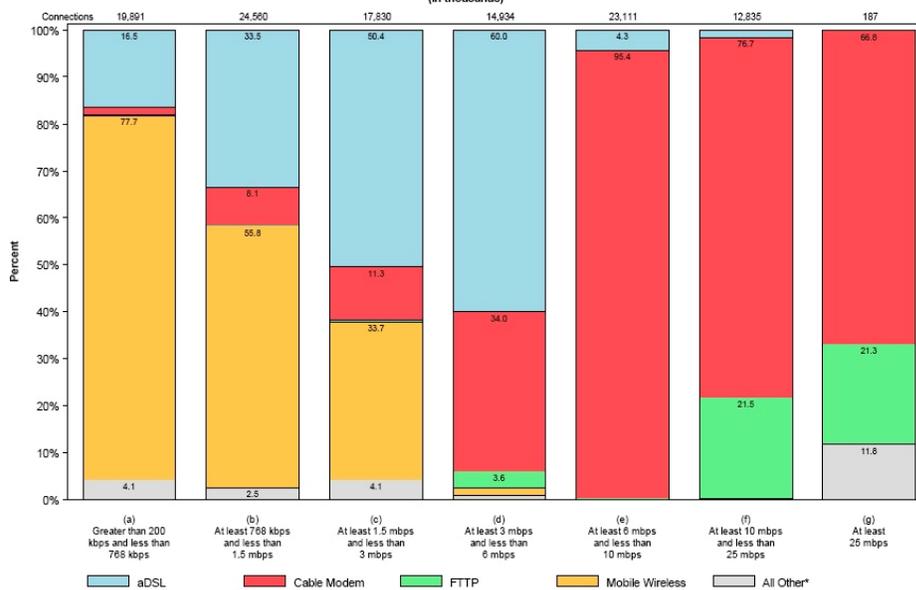
<sup>124</sup> Both charts come from the FCC’s 2010 report on the state of internet access services. FCC, Wireline Competition Bureau, INTERNET ACCESS SERVICES: STATUS AS OF JUNE 30 (2010 *Internet Report*), 2009 10-11 (Sept. 2010).

# MEET THE NEW SCARCITY

**Chart 9**  
Residential Fixed Connections 2005-2009  
(Shares of Selected Technologies)



**Chart 11**  
Distribution of Connections by Downstream Speed  
Selected Technologies as of June 30, 2009  
(In thousands)



Admittedly, the telephone companies do provide potentially competitive high-speed services through their fiber networks (Verizon FiOS) or partial-fiber networks (AT&T's U-Verse). These technologies, while quite promising, have not yet been widely deployed. More importantly, the larger telephone companies have recently signaled that they are effectively conceding the high-speed wireline market to the cable industry by reducing or even halting investment in network expansion.<sup>125</sup> Some argue that the companies have decided to focus on the wireless market rather than contesting cable companies that have a big head start in high-speed deployment.<sup>126</sup> In short, cable will soon be the only game in town.

Further, the wireless market does not currently provide sufficient competition with cable wireline networks.<sup>127</sup> To be sure, more people than ever enjoy wireless broadband, but there is little evidence that they are *substituting* wireless broadband for their wireline broadband services. Barring some extreme technological innovation, the increasing speeds of cable wireline networks make wireless substitution even more unlikely in the foreseeable future.<sup>128</sup>

Further, the wireless market—while robustly competitive ten years ago—is itself becoming increasingly uncompetitive. Indeed, the most recent FCC reports on wireless competition failed to conclude—as they had for years—that the market was competitive.<sup>129</sup> Instead, the reports emphasize the recent consolidation of the market and erosion of national

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<sup>125</sup> Crawford, *The Looming Cable Monopoly*, *supra* note 120. Karl Bode, *The Press Realizes the FiOS Party is Over*, DSLREPORTS.COM, Mar. 30, 2008, available at <http://www.dslreports.com/shownews/The-Press-Realizes-The-FiOS-Party-Is-Over-107639>; Dave Burstein, *AT&T's Stankey: U-verse Build Virtually Over*, DSLREPORTS.COM, May 18, 2011, available at <http://www.dslreports.com/shownews/ATTs-Stankey-Uverse-Build-Virtually-Over-114279>.

<sup>126</sup> Burstein, *supra* note 125 (explaining AT&T's cuts to U-Verse by “guessing that what's going on is that AT&T decided they had no choice but to raise capex on wireless”).

<sup>127</sup> *National Broadband Plan*, *supra* note 114, at 42 (“Wireless broadband may not be an effective substitute in the foreseeable future for consumers seeking high-speed connections at prices competitive with wireline offers.”); Crawford, *The Looming Cable Monopoly*, *supra* note 120.

<sup>128</sup> *National Broadband Plan*, *supra* note 114, at 42.

<sup>129</sup> See Fifteenth Report, *In re* Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993 at ¶2 (*Fifteenth CMRS Report*), WT Docket No. 10-133 (June 27, 2011) (“[T]he *Fifteenth Report* makes no formal finding as to whether there is, or is not, effective competition in the industry.”); Fourteenth Report, *In re* Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993 (*Fourteenth CMRS Report*), 25 FCC Rcd 11407, 11623 (2010).

competitors.<sup>130</sup> A recent wave of mergers—including the proposed merger between AT&T Mobility and T-Mobile, the country’s second and fourth largest providers—only exacerbates these trends toward consolidation.<sup>131</sup>

The larger point is that broadband access platforms are not abundant, but scarce. As application-layer platforms increase, they will therefore increasingly rely on inputs from a dwindling number of network-layer platforms. The emphasis on platform abundance thus disguises the enormous power disparities that have developed between network-layer platform owners and the application owners that rely on them. As a result, a handful of network owners will soon have enormous control over modern speech. By failing to fully account for the realities of layered infrastructure, the negative rights literature is downplaying the threat to democratic speech that centralized control over these inputs poses.

B. *The Flaws of “Editorial Discretion”*

A second critique of the negative rights literature is that its application of “editorial discretion” to network-layer transmission is problematic—and fairly radical in its implications. Once again, the problem stems from the failure to distinguish between network and application layers. This foundational error manifests itself in several different ways—all of which ultimately counsel against finding network-layer transmission as expressive speech under current doctrine.<sup>132</sup>

To begin, the negative rights literature—in arguing that transmission is editorial—is implicitly assuming a scarcity at the application layer that simply does not exist.<sup>133</sup> In other words, they are viewing new technologies through the lens of older ones. With past media

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<sup>130</sup> *Fifteenth CMRS Report*, *supra* note 129, at 16-17; *Fourteenth CMRS Report*, *supra* note 129, at 11412 (“Over the past five years, concentration has increased in the provision of mobile wireless services.”).

<sup>131</sup> Andrew Ross Sorkin, Michael J. De La Merced & Jenna Wortham, *AT&T to Buy T-Mobile USA for \$39 Billion*, N.Y. TIMES, Mar. 20, 2011. For an overview of the policy choices that contributed to this consolidation, see John Blevins, *Death of the Revolution: The Legal War on Competitive Broadband Technologies*, 12 YALE J. L. & TECH. 85, 94-103 (2009).

<sup>132</sup> As explained *supra* in Part V, courts have adopted a two-part test to determine if an activity constitutes “expressive” speech. The speech must be intended to convey a particular message, and the audience must be very likely to understand that message. *Texas v. Johnson*, 491 U.S. 397, 404 (1989).

<sup>133</sup> For examples in the literature and industry of claims that transmission is editorial, see *supra* notes 96-97.

technologies, the physical transmission medium imposed concrete restraints on the amount and type of content that could be transmitted.<sup>134</sup> For instance, requiring a newspaper editor to publish a person’s op-ed necessarily limited the editor’s ability to publish other op-eds.<sup>135</sup> Similarly, early must-carry requirements necessarily limited cable owners’ ability to include channels of its choice (particularly given the amount of channels then available).<sup>136</sup>

Neither analogy applies to modern broadband networks. As other scholars have recognized, content has become untethered from the constraints of the physical medium.<sup>137</sup> As a result, modern layered networks can effectively generate an *infinite* amount of content.<sup>138</sup> This dynamic is unlike any media platform in history—and it illustrates the limits of analogizing modern networks to older media platforms and to the cases—like *Turner*—that governed them. Broadband networks, unlike cable providers, do not provide access to a predetermined and limited set of programming options. They instead provide access to an effectively infinite number of ever-changing, user-created and user-selected content sources. The sheer volume and diversity of content being transmitted—exponentially more than even the most high-capacity cable networks—defy any claim that network owners are exercising editorial control.

While reasonable minds can disagree on whether cable-programming arrangements convey a message for First Amendment purposes, those actions are qualitatively different from what broadband access providers do.<sup>139</sup> And although it may be an obvious point,

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<sup>134</sup> Other scholars have recognized this infrastructural dynamic. For two particularly good analyses, see Goodman, *supra* note 18, at 900-10 (“[M]ere operation of a transmission medium like broadcast or cable is no longer enough to confer control over salience.”); Amit M. Schejter & Moran Yemini, “*Justice and Only Justice, You Shall Pursue*”: *Network Neutrality, the First Amendment, and John Rawls’s Theory of Justice*, 14 MICH. TELECOMM. TECH. L. REV. 137, 140-42 (2007) available at <http://www.mttl.org/volfourteen/schejter&yemini.pdf>. These scholars, however, are arguably accepting the *Turner* analogy too easily. Goodman, *supra* note 3, at 1222-23; Yemini, *supra* note 18, at 19-20.

<sup>135</sup> *Tornillo*, 418 U.S. at 256-57 (arguing that one cost of forced access for replies is “taking up space that could be devoted to other material the newspaper may have preferred to print”).

<sup>136</sup> See *Turner I*, 512 U.S. at 636-37.

<sup>137</sup> See *supra* note 134.

<sup>138</sup> While network congestion can be a real concern, it is largely unaffected by the *number of application and content sources* connected to the Internet.

<sup>139</sup> Reply Comments of Google at 28 (*Google Reply Comments*), Preserving the Open Internet, GN Docket No. 09-191 (FCC Apr. 26, 2010) (“The act of routing data packets does not convey a particularized message.”).

requiring a company like Verizon to treat data traffic equally at the *network level* does not limit Verizon's ability to create its own protected content and applications, any more than the existence of Google crowds Yahoo off the network.<sup>140</sup>

A separate error the negative rights literature makes is that it fails to appreciate the technological characteristics of physical transmission itself. Within broadband networks, the network layer was self-consciously designed to be application-agnostic. Much like the Post Office, the Internet transmits packets according to a standardized routing system with no regard for the applications or content within the packets.<sup>141</sup> Thus, network-layer transmission is fundamentally distinct from transmission upon older media technologies. Network-layer transmission not only does not convey a message, it was self-consciously designed to *ignore* any such messages.<sup>142</sup>

Network owners could respond, however, that editorial discretion includes the right *not* to speak—or more precisely, the right to exclude certain data or channels. In this sense, nondiscrimination requirements result in forced speech.<sup>143</sup> There are, however, several problems with this argument as well—and it again traces back to a failure to fully internalize the distinction between application-layer and network-layer platforms.

To conclude an activity is expressive, current doctrine requires not only that the speaker intends the activity to convey a message, but that the

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<sup>140</sup> For an example of this mistake, see May, *supra* note 97, at 204 (citing application-layer speech to justify treating network-layer transmission as expressive editorial speech).

<sup>141</sup> For an overview of how the transmission protocols (TCP/IP) work, see generally Bramble, *supra* note 94, at 77-78; Michael A. Geist, *The Reality of Bytes: Regulating Economic Activity in the Age of the Internet*, 73 WASH. L. REV. 521, (1998) (explaining that the “TCP/IP protocol, universally adopted in 1983, enabled different networks to interchange data without making any internal changes to the network”); Douglas C. Sicker & Lisa Blumensaadt, *supra* note 22, at 307-08 (providing overview of TCP/IP protocol suite). For a history of the protocols' adoption, see Katie Hafner & Matthew Lyon, *WHERE WIZARDS STAY UP LATE: THE ORIGINS OF THE INTERNET* 223-27 (1996) (describing initial problems that led to development of protocols).

<sup>142</sup> In this sense, the Internet was traditionally application-agnostic. Barbara van Schewick, *Network Neutrality: What a Non-Discrimination Rule Should Look Like*, at 1 (Stanford Pub. Law & Legal Theory Series, Working Paper No. 1684677, 2010) (suggesting that modern nondiscrimination rules should be application-agnostic).

<sup>143</sup> See, e.g., May, *supra* note 97, at 204; Comments of Verizon and Verizon Wireless On Under-Developed Issues in the Open Internet Proceeding at 70-71, Preserving the Open Internet, GN Docket No. 09-191 (FCC Oct. 12, 2010) (arguing that broadband allocation requirements are “forced speech”).

audience is very likely to attribute that message to the speaker.<sup>144</sup> Given the infinite amount of content at the application-layer, however, it is unrealistic to assume that consumers associate Internet content with the network owner itself.<sup>145</sup> Consumers do not, for instance, associate objectionable sites—like pornography—to the *access provider*. One reason, again, is that broadband networks—unlike newspapers—were self-consciously designed to be disassociated from the content they transmit. In this respect, the Post Office is a far better analogy to network-layer transmission than any prior media technology.

Further, in many instances, the law specifically relieves modern network owners from any association with the data on its networks. Section 230 of the Communications Decency Act explicitly prohibits claims against Internet access providers for objectionable content—particularly defamatory content—on the providers’ networks.<sup>146</sup> Section 512 of the Digital Millennium Copyright Act also protects network owners from infringement claims for the activities of its users.<sup>147</sup> In both cases, the law reinforces the common perception that the network owner is not providing content, but is instead merely providing *access* to the larger Internet with content created independently by millions of users. In this respect, both laws reflect the realities of layered network infrastructure.

A separate critique of the editorial discretion analogy is that it would—if recognized—create incentives to alter the fundamental architecture of the Internet. One key premise of my critique is that the Internet’s architecture has traditionally constructed a sharp divide between network transmission functionality and application-layer content and services. So long as the divide remains, it is difficult under current doctrine to find network-layer transmission as expressive. In theory, however, network owners could change the architecture to more fully integrate transmission with content (indeed, this is precisely how modern centralized cable networks work). Through practices like deep packet inspection and prioritized delivery, network owners would theoretically make the transmission service more dependent upon the content of the

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<sup>144</sup> *Johnson*, 491 U.S. at 404 (quoting *Spence v. Washington*, 418 U.S. 405, 410-411 (1974)).

<sup>145</sup> Bramble, *supra* note 94, at 83-84 (“[I]n the context of Internet access, there are so many ‘participating units’ that the decision to include or exclude one or another . . . cannot possibly be said to have [an] . . . effect upon the ‘message’ supposedly being conveyed by an access provider.”).

<sup>146</sup> 47 U.S.C. § 230.

<sup>147</sup> 17 U.S.C. § 512(a).

data being transmitted—and thus increase their First Amendment protections.<sup>148</sup>

This integration, however, would essentially destroy the traditional architectural design of the Internet—an architecture that has (for reasons more fully explained in Part IV) generated unprecedented innovation. Given the enormous negative externalities of such a decision, courts should flatly reject the idea that network-layer transmission is expressive. To do so would give carriers the incentives to change the architecture simply to avoid access regulation.

Indeed, it could even give network owners incentives to use these infrastructural changes to undertake more traditional types of content or viewpoint-based actions such as blocking political speech. Although companies strongly deny that they would block content for such reasons (and I believe them), the negative rights literature is nonetheless arguing for the *power* to block political content with complete impunity—a power that Congress could not constitutionally limit under the negative rights’ interpretation of the First Amendment.<sup>149</sup> It is normatively troubling for any democracy to cede such complete control over the foundational inputs of modern speech to a handful of private and politically unaccountable companies. In fact, it is radical.

#### IV. CRITIQUING THE POSITIVE RIGHTS APPROACH

In this Part, I critique the positive rights literature’s approach to access regulations of digital platforms. Interestingly, positive rights theorists make precisely the opposite mistake of negative rights theorists. Instead of treating networks like applications, the positive rights approach treats applications as networks.<sup>150</sup> Application-layer platforms, however, have distinct infrastructural characteristics that make them far more competitive, dynamic, and abundant.<sup>151</sup> For this reason, the positive rights

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<sup>148</sup> *Google Reply Comments*, *supra* note 59, at 10-15 (explaining how control of network layer creates unique discriminatory abilities such as deep packet inspection and prioritization).

<sup>149</sup> *NASUCA Reply Comments*, *supra* note 103, at 29 (“One must pause here to appreciate the breadth and audacity of the network owners’ claims.”).

<sup>150</sup> Frank Pasquale writes that that “DSEs [dominant search engines] and carriers are infrastructurally homologous” and that “the same common carrier regulations DSEs now insist should govern carriers should also be applied to themselves.” Pasquale, *supra* note 41, at 266-67.

<sup>151</sup> See also Goldman, *Revisiting Search Engine Bias*, *supra* note 40, at 10 (“In general, charges of Google hypocrisy reflect a misunderstanding about the various

literature misapplies the concepts it borrows from the traditional media access debate. Specifically, I argue that the literature: (1) underestimates the “abundance” of application-layer platforms; and (2) minimizes the expressive aspects (i.e., the editorial discretion) inherent in application-layer platforms’ functionality.

A. *The Abundance of Application-Layer Platforms*

One premise of the positive rights literature is that application-layer platforms are becoming uncompetitive. In the eyes of many scholars, platform owners have become new gatekeepers that control access to the inputs of modern speech.<sup>152</sup> Access regulations—and deferential First Amendment scrutiny—are therefore necessary to ensure that platform owners do not exert disproportionate influence of democratic speech. Indeed, Jerome Barron himself has argued that access rights remain necessary even in the digital world. He writes:

As a few Internet service providers and search engines become the major platforms and tools for the dissemination of content, pressures on them to censor and to deny access are likely to become ever more intense.<sup>153</sup>

Notably, Barron assumes that service providers and search engines are *both* becoming less abundant.

I argue, however, that application-layer platforms are *more* abundant than the positive rights literature recognizes—even when a single application provider enjoys a dominant market share. More specifically, I argue that unique features of the Internet’s architecture make application markets (including search engine markets) inherently competitive and contestable. I defend this position by applying insights

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‘layers’ in the telecommunications stack, i.e., that the physical layer plays a different role in the information ecosystem than the content layer[.]”).

<sup>152</sup> See *supra* note 85.

<sup>153</sup> Jerome A. Barron, *Access to the Media: A Contemporary Appraisal*, 35 HOFSTRA L. REV. 937, 950-52 (2007); see also Barron, *supra* note 94, at 840-41 (arguing that “it appears that just a few Web sites dominate the market.”).

from Barbara van Schewick and others' recent work on the relationship of network architecture and innovation.<sup>154</sup>

### 1. Internet Architecture and Application Abundance

In a nutshell, I argue that Internet application platforms are inherently abundant and competitive. Accordingly, even where application providers have become dominant, these markets remain inherently contestable because entry costs are relatively low enough to allow new competitors to arise quickly.<sup>155</sup> This dynamic competitiveness stems directly from the Internet's traditional architectural structure. Unless this architecture changes radically (e.g., by abandoning neutrality at the network layer), we should expect application platforms to continue evolving rapidly in ways that make access regulation both unnecessary and harmful.

Professor Barbara van Schewick's recent book, *Internet Architecture and Innovation*, provides theoretical and technological grounding for this view of Internet architecture—and thus ultimately for my skepticism of application-layer access regulations.<sup>156</sup> To be very general, van Schewick's work examines how the Internet's architecture generated such historic and unprecedented levels of innovation. The key, she argues, is that certain features of this architecture lower innovation

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<sup>154</sup> See generally Barbara van Schewick, INTERNET ARCHITECTURE AND INNOVATION (2010); Brett M. Frischmann, *An Economic Theory of Infrastructure and Commons Management*, 89 MINN. L. REV. 917 (2005); Brett M. Frischmann & Barbara van Schewick, *Network Neutrality and the Economics of an Information Superhighway: A Reply to Professor Yoo*, 47 JURIMETRICS 383 (2007); Mark A. Lemley & Brett M. Frischmann, *Spillovers*, 107 COLUM. L. REV. 257, 297 (2007); Barbara van Schewick, *Towards an Economic Framework for Network Neutrality Regulation*, 5 J. ON TELECOMM. & HIGH TECH. L. 329, 383 (2007). See also Brief Amicus Curiae of Professors Jack Balkin [et al.] that the FCC's Order be Affirmed, at 10-24, Comcast Corp. v. FCC, No. 08-1291 (D.C. Cir. Nov. 23, 2009) (*Professors' Amicus Brief*). As a disclaimer, I filed this brief on their behalf.

<sup>155</sup> For a good definition of contestability in this context, see Rufus Pollock, *Is Google the Next Microsoft? Competition, Welfare and Regulation in Online Search*, REVIEW OF NETWORK ECONOMICS 9:4, 25-26 (2009); see also Jim Chen, *Antitrust Issues in the Telecommunications and Software Industries: Titanic Telecommunications*, 25 SW. U.L. REV. 535, 552 (1996) ("In a contestable, albeit imperfectly competitive market, it is the threat of entry rather than the fact of entry 'that disciplines incumbents and forces them to serve consumers efficiently.'").

<sup>156</sup> VAN SCHEWICK, INTERNET ARCHITECTURE, *supra* note 154. Of course, in applying her work, I do mean to suggest that she endorses these conclusions or my analysis.

costs by dramatically reducing costs of entry for new applications and content.<sup>157</sup>

One key architectural feature is the Internet’s “modularity”—the ability of different layers of the Internet to operate independently of each other in a decentralized manner.<sup>158</sup> In simple terms, modularity allows innovators to introduce new products by simply “plugging” them into the network without coordinating with—or even knowing anything about—the other layers of the Internet.<sup>159</sup> As a result, innovators can introduce new applications without negotiating with—or seeking permission from—the owners of network-layer platforms.

In this respect, modularity generates innovation by lowering entry costs. Consider, for instance, how modularity facilitated the rise of Facebook.<sup>160</sup> The creators of Facebook did not have to negotiate with any broadband access provider—nor did they have to individually tailor their product to different networks. Instead, the creators simply used the Internet’s open and standardized interfaces to introduce Facebook to the larger global Internet. No prior permission was needed. The dynamic is similar to the ability of appliance makers to rely on the open standardized interfaces of the electricity grid (i.e., two-pronged plugs) without negotiating access rights with electricity providers.<sup>161</sup>

Facebook’s entry costs would have been much different within a less modular network—one more like the centralized and fully integrated cable network. In this hypothetical world, the creators of Facebook (like today’s programmers of video channels) would have had to negotiate with each individual broadband access provider (e.g., Comcast, AT&T, Time Warner) for access to the Internet—and presumably would have had to

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<sup>157</sup> *Id.* at 201-14, 297-353.

<sup>158</sup> *Id.* at 38-44. For additional discussions of the Internet’s modularity and its benefits, see Pierre de Vries, *The Resilience Principles: A Framework for New ICT Governance*, 9 J. TELECOMM. & HIGH TECH. L. 137, 140-43 (2011); Kevin Werbach, *Off the Hook*, 95 CORNELL L. REV. 535, 546-47 (2009); Richard S. Whitt, *Adaptive Policymaking: Evolving and Applying Emergent Solutions for U.S. Communications Policy*, 61 FED. COMM. L.J. 483, 563-67 (2008-09).

<sup>159</sup> VAN SCHEWICK, INTERNET ARCHITECTURE, *supra* note 154, at 119-21; Werbach, *supra* note 158, at 546-47.

<sup>160</sup> For this and additional examples of relatively low-cost innovation, see VAN SCHEWICK, INTERNET ARCHITECTURE, *supra* note 154, at 204-13.

<sup>161</sup> Lawrence Lessig, Testimony to the FCC En Banc Hearing at Stanford University: Neutral Network (Apr. 17, 2008), *available at* <http://www.lessig.org/blog/2008/04/testifying-fcc-stanford.html> (video testimony) (classifying electric grid as open network).

pay those providers significant access fees.<sup>162</sup> Further, these creators would have had to incur the costs of learning the technical specifications of each individual network.

Another consequence of the Internet's modular layered architecture is that consumers' switching costs are generally low because applications are not tethered to an individual physical network provider.<sup>163</sup> Indeed, in many instances, these costs are practically zero. Consumers who are unhappy with their search engine or social networking site can generally switch products simply with a few keystrokes. One could imagine a world, however, where switching costs are much higher.<sup>164</sup> If, for instance, the Internet were less modular and more integrated, switching search engines might require switching *broadband access providers*. In this hypothetical world, switching costs would be similar to the costs incurred in switching video providers when you are unhappy with channel packages.

In short, the costs of introducing—and effortlessly adopting—new innovative application platforms are extremely low because of specific architectural features of the Internet. These dynamics help explain why Internet application markets have been—and will remain—extremely competitive and contestable so long as access to the network-layer platforms remain secure.

## 2. Implications for Application-Layer Platform Regulations

In this section, I explain how the architectural dynamics explained above undermine the positive rights literature's argument that access regulations are necessary for application-layer platforms. Specifically, I argue that the Internet's architectural features cause the literature (1) to understate the abundance (and thus the competitiveness) of application platforms; and (2) to underestimate the information and administration costs involved in implementing access regulations on inherently dynamic platforms.

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<sup>162</sup> This hypothetical draws upon a critique of access fees that Barbara van Schewick raised at a recent FCC hearing. See FCC Workshop on Approaches to Preserving the Open Internet, GN Docket No. 09-191, Apr. 28, 2010 (Opening Statement of Barbara van Schewick).

<sup>163</sup> VAN SCHEWICK, INTERNET ARCHITECTURE, *supra* note 154, at 261 (“Switching costs are the costs a customer incurs when switching to a competitor.”).

<sup>164</sup> Indeed, the switching costs for *access* services is much higher. VAN SCHEWICK, INTERNET ARCHITECTURE, *supra* note 154, at 259-64.

a) *Underestimating Competitiveness*

The earlier description of the Internet's architecture largely explains why the positive rights literature underestimates the competitiveness of application platform markets. Competitive applications can be introduced cheaply—and consumers can switch to these applications at essentially no cost. In the context of search, for instance, consumers even today can switch from Google to competitors such as Bing or Yahoo with a few keystrokes.

The more critical question, however, is whether these dynamics continue to apply when a platform application becomes *dominant*.<sup>165</sup> I argue that they do. Because new applications can be introduced so easily and cheaply, these application markets remain inherently contestable even when dominant platforms emerge. For this reason, the positive rights literature systematically underestimates not only the likelihood of new entrants, but also—and critically—the likelihood of *entirely new technologies* that provide functionally similar services.

The rise of social networking sites like Facebook as rivals to Google illustrates how quickly application markets can evolve.<sup>166</sup> Recall that the positive rights critique of Google is essentially a traditional media access critique.<sup>167</sup> If your site fares poorly on the Google PageRank system, your site will not be seen.<sup>168</sup> Indeed, a company called Kinderstart brought an antitrust suit against Google on a similar rationale, arguing that Google PageRank had become an “essential facility” for which access is required.<sup>169</sup>

The rise, however, of social networking sites like Facebook and Twitter significantly reduces these access concerns. As Eric Goldman has written, these new platforms—while significantly different than search

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<sup>165</sup> For instance, Frank Pasquale's precise argument is that *dominant* search engines have legally relevant similarities with common carriers. Pasquale, *supra* note 41, at 266-67.

<sup>166</sup> See, e.g., Ryan Tate, *The Secret, Mysterious Facebook Account of Google Co-founder Sergey Brin*, BUS. INSIDER, Apr. 19, 2011 (“Google and Facebook are fierce rivals, and spar over advertising, access to private information, and talented engineers.”); Matthew Ingram, *Be Afraid, Google. Facebook Will Do Search*, GIGAOM, Mar. 25, 2011, available at <http://gigaom.com/2011/03/25/facebook-search-googl>.

<sup>167</sup> See *supra* text accompanying notes 85-87.

<sup>168</sup> Grimmelman, *supra* note 10, at 447 (“The most common trope in the search debates is the website whose traffic vanishes overnight when it disappears from Google's search results.”) (criticizing this view).

<sup>169</sup> *Kinderstart.com v. Google*, 2007 U.S. Dist. LEXIS 22637 at \*10-11 (N.D. Cal. 2007).

engines—provide functionally similar services.<sup>170</sup> This functional similarity reduces the access concerns that motivate positive rights theorists. Companies that fare poorly on Google’s search rankings can now use social networking sites to advertise their services—either by opening social media accounts or by purchasing targeted advertisements in the sidebar.

Social networking sites like Facebook also have the potential of offering far more targeted advertising services by leveraging the immense individualized data they collect.<sup>171</sup> Such data is especially useful for *local* advertising services—a field that is experiencing tremendous growth.<sup>172</sup> The rise of sites like Groupon and LivingSocial (online providers of coupons for local services) and location-based services like Foursquare are likely just the tip of the iceberg of local advertising innovations. Interestingly, the growth of these various social media sites has exploded in just the last two years—a development that was therefore (and quite tellingly) not considered even in quite recent articles calling for regulation of search engines.<sup>173</sup>

Collectively, these dynamics undermine the strongest argument for access regulations—namely, that potential rivals to Google (or other dominant applications) face insurmountable barriers to entry in the form of high fixed costs.<sup>174</sup> For one, even assuming search engines have

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<sup>170</sup> Goldman, *Revisiting Search Engine Bias*, *supra* note 40, at 2-5 (“Google dominates the search engine industry but faces emerging competition from entities that are not traditional search engines.”).

<sup>171</sup> Hussein Fazal, Prediction: *Facebook Will Surpass Google in Advertising Revenues*, TECHCRUNCH, June 5, 2011, available at <http://techcrunch.com/2011/06/05/facebook-will-surpass-google>.

<sup>172</sup> Some analysts have predicted that local digital advertising revenues will double from \$21 billion today to \$42 billion in 2015. Press Release, BIA/Kelsey, *BIA/Kelsey Forecasts U.S. Local Digital Ad Revenues to Nearly Double*, Mar. 21, 2011, available at <http://www.bia.com/Company/Press-Releases/110321-U.S.-Local-Digital-Ad-Revenues-to-Nearly-Double-by-2015.asp>. See also Rip Empson, *Local is Focal*, TECHCRUNCH, Apr. 14, 2011, available at <http://techcrunch.com/2011/04/14/local-is-focal-street-fight-gives-the-local-industry-a-source-for-news-and-analysis>.

<sup>173</sup> Goldman, *Revisiting Search Engine Bias*, *supra* note 40, at 4 (“While Google has dominated its direct competition in the search market, Google faces serious new competitive threats we did not anticipate in 2006.”). Interestingly, Bracha and Pasquale’s 2008 article on search engine regulation does not mention Facebook at all, and mentions social networking once. Bracha & Pasquale, *supra* note 5, at 1179.

<sup>174</sup> See Bracha & Pasquale, *supra* note 5, at 1180-83 (“Search engines have very high fixed costs and a relatively low marginal cost.”); Netanel, *supra* note 4, at 982 (arguing that search engines and other new media services “are characterized by high fixed and relatively low marginal costs”); Pollock, *supra* note 155, at 18 (arguing that “search engine cost structures display many of the characteristics of traditional (natural

enormous fixed sunk costs, this fact has little relevance to social networking sites that provide functionally similar advertising services. In this sense, one could view Facebook as “intermodal” competition to search engines.<sup>175</sup> Indeed, these types of intermodal competitors are precisely what the highly dynamic application layer makes possible.

But even ignoring such intermodal competition, the application layer’s unique characteristics lower the fixed costs even for new rival search engines. It is true that running a national search service requires massive server capacity and engineering expertise. However, those fixed costs are not necessarily required to *design competitive software*. Google, it should be remembered, was the product of amateur graduate students who had little capital funding.<sup>176</sup> It is problematic, then, to conflate the costs of running a nationally dominant company with the costs of initially designing a program that has the potential to overtake it—particularly with the rise of cloud-based server capacities that further reduce fixed entry costs. If a new algorithm could, for instance, translate natural language searches better than Google, the new product could gain market share rapidly—particularly in an environment where switching costs remain low. In this respect, Google’s dominance is always vulnerable to the next quantum leap in software innovation. The rapid decline of MySpace—an emerging “gatekeeper” just a few years ago—illustrates how quickly fortunes can change within the application layer.<sup>177</sup>

The entry costs of new *network-layer* platforms, by contrast, are much different. Unlike software programs, a competitive network infrastructure requires immense—and risky—capital-intensive costs at the very beginning.<sup>178</sup> Further, switching costs are necessarily much higher. These dynamics render the network-layer access market not only uncompetitive, but largely uncontestable. As noted earlier, these economic characteristics explain why most residential broadband

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monopoly) utilities”).

<sup>175</sup> Intermodal competition refers to competition that exists among different types of technologies. For instance, airplanes and railroads are intermodal competitors for passenger and shipping services. See John Blevins, *A Fragile Foundation-The Role of “Intermodal” and “Facilities-Based” Competition in Communications Policy*, 60 ALA. L. REV. 241, 244-50 (2009) (describing intermodal competition in transportation and communications law context).

<sup>176</sup> VAN SCHEWICK, INTERNET ARCHITECTURE, *supra* note 154, 314-18.

<sup>177</sup> See, e.g., Netanel, *supra* note 4, at 983 (“Facebook and MySpace dominate the social network market.”). On MySpace’s decline, see Brian Stelter, *With Sale of MySpace, Some Relief*, N.Y. TIMES, June 30, 2011.

<sup>178</sup> See *supra* notes 115-117.

subscribers continue to use decades-old (and publicly-subsidized) cable and telephone infrastructure to access the Internet.<sup>179</sup>

The larger lesson is that policymakers should be very hesitant to regulate application platforms that are deemed dominant. As history has shown, new ones can arise quickly, and at low cost—sometimes even in dorm rooms—so long as neutral access to the network layer is protected. For this reason, the positive rights literature’s focus on “access” to applications is misguided. The protection against dominant application platforms is not to be found in access remedies, but in protecting *innovation*. In this respect, *network-layer* protections—as opposed to application-layer ones—are arguably the single best way to ensure that the normative goals of positive rights theorists are met within the application layer.

To illustrate how innovation achieves these goals, consider the FCC’s ill-fated attempt to mandate access to AOL’s instant messaging service (AIM). In 2001, the FCC imposed a merger condition on Time Warner and AOL that required the new entity to allow third-party messaging sites to access AIM.<sup>180</sup> Today, of course, services like Gchat, Skype, SMS, and Facebook have long since eclipsed AOL’s instant messaging service (AIM). The problem is that the FCC’s merger condition treated the application platform like a network platform. Indeed, in adopting the condition, the FCC noted that instant messaging services exhibited high barriers to entry, particularly “strong network effects.”<sup>181</sup> Despite these network effects, however, the market remained inherently contestable because of the low entry costs of introducing new chat applications.<sup>182</sup> Thus, it was ultimately innovation on the neutral Internet—rather than access regulations—that prevented AIM from becoming a modern gatekeeper.<sup>183</sup>

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<sup>179</sup> 2010 *Internet Report*, at 10-11 (showing that virtually all fixed residential broadband connections consist of telephone-provided DSL or cable modem service).

<sup>180</sup> Applications for Consent to the Transfer of Control to AOL Time Warner Inc., 16 F.C.C.R. 6457, 6603-04 (2001) (memorandum opinion and order) (imposing interoperability requirements on instant messaging services).

<sup>181</sup> *Id.* at 6603.

<sup>182</sup> The situation would have been much different, however, if Time Warner—the network owner—had started blocking users’ ability to access rival messaging services from the network layer. In that case, Time Warner would have been leveraging its control over scarce physical infrastructure to privilege its applications.

<sup>183</sup> Kevin Werbach, *Only Connect*, 22 BERKELEY TECH. L.J. 1233, 1291-92 (2007) (“One lesson of the layered regulatory model is that regulators should be increasingly hesitant to impose obligations at higher levels of the protocol stack.”).

*b) Underestimating Information and Administration Costs*

One further implication of the application layer's dynamic characteristics is that access regulations would be impossible to design and administer. Access regulations would, quite simply, always be a step behind the technology—thus making information and administrative costs prohibitively high. For this reason, access regulations are likely to do real harm to application innovation.

At the outset, regulators would struggle to define the application platforms they seek to regulate. Indeed, the very idea of platform regulations presupposes that “platforms” can be coherently defined, and will retain some threshold of permanent features through time. This assumption, however, is problematic given that application platforms are consistently changing. How, for example, should policymakers define “search engine”? Would sites that include any sort of search functionality—such as Lexis or Twitter—be included? If Facebook adds additional searching capability, will it cross the line and become a search engine for regulatory purposes? These questions would be very difficult for Congress or federal regulators to answer.

Even assuming, however, that regulators could settle on coherent definitions, a second administrative challenge would be determining when exactly a given application platform becomes dominant enough to justify access regulation. Today, for example, Google is perceived by many positive rights advocates to be a dominant search engine. Even today, however, competitive search from large well-established companies is easily available. These services include Microsoft's Bing and Yahoo—with China's Baidu looming on the horizon.<sup>184</sup>

But even assuming Google is a monopoly, how do regulators measure the intermodal competition that sites like Facebook, Twitter, and Groupon arguably provide? How can the government know that market forces provide insufficient discipline even on dominant providers? Interestingly, the early search engines that preceded Google were openly discriminatory in that they sold favorable result rankings to the highest bidder.<sup>185</sup> Google—which used a much different algorithm for ranking

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<sup>184</sup> Bing and Yahoo have also recently enjoyed (slightly) increasing market share, though I agree that Google dominates the market. Erick Schonfeld, *Binghoo! Gains More Search Share in June*, TECHCRUNCH, Jul. 13, 2011 (providing search market shares).

<sup>185</sup> John Battelle, *THE SEARCH: HOW GOOGLE AND ITS RIVALS REWROTE THE RULES OF BUSINESS AND TRANSFORMED OUR CULTURE* (2005).

results—emerged and outperformed these “discriminatory” search engines without government intervention.<sup>186</sup>

Finally, even assuming that the challenges above could be met, a third administrative challenge would be actually *implementing* access regulations.<sup>187</sup> Search neutrality regulations, as Eric Goldman has argued, would require policymakers to adopt a normative baseline of what “neutrality” entails.<sup>188</sup> The entire point of search engines, however, is to provide non-neutral rankings based on a user’s subjective preferences. Indeed, the Google search algorithm is an incredibly complicated—and constantly changing—procedure that weighs an unknown number of variables in ranking search results.<sup>189</sup> The idea that regulators could gain enough information about this process to essentially dictate permissible ranking methodologies seems implausible—particularly as search engines themselves evolve into more personalized services.<sup>190</sup>

Of course, these administrative challenges are not new to positive rights theorists, who have traditionally struggled to translate their normative preferences into concrete administrable policies. Indeed, this critique has plagued positive rights approaches—and media access theories in particular—since their inception.<sup>191</sup> The problem, however, is not so much that the positive rights literature has not provided adequate answers to these administrative questions (though I would argue they have not). The more fundamental problem is that many of these questions—e.g., what is a “search engine”—are inherently *unanswerable* because the Internet’s architecture allows applications to evolve so quickly.

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<sup>186</sup> Greg Lastowka, *Google’s Law*, 73 BROOKLYN L. REV. 1327, 1334-41 (2008) (providing early history of Google’s search algorithm).

<sup>187</sup> For examples of these administrative challenges, see generally Grimmelman, *supra* note 10; Marissa Mayer, *Do Not Neutralise the Web’s Endless Search*, FIN. TIMES, July 14, 2010 (outlining practical enforcement problems with search regulations). Ms. Mayer, however, worked for Google at the time she wrote this essay.

<sup>188</sup> Goldman, *Revisiting Search Engine Bias*, *supra* note 40, at 10-11 (“the term “search neutrality” implies the existence of “neutral search engines,” but those are entirely mythical.”).

<sup>189</sup> Grimmelman, *supra* note 10, at 455.

<sup>190</sup> Goldman, *Search Engine Bias*, *supra* note 37, at 198-99.

<sup>191</sup> See, e.g., Yoo, *supra* note 19, at 324-41 (“The primary problem is that their theories fail to offer any basis for making the types of decisions and tradeoffs necessarily required by their democratically oriented vision of free speech.”).

B. *Expressive Dimensions of Application-Layer Platforms*

In the previous section, I argued that application-layer access regulations were unnecessary and impossible to administer. Doctrinally, however, this argument only becomes relevant for First Amendment purposes if the platform functions implicate expressive speech interests.<sup>192</sup> In this section, I argue that they do. In short, I argue that the positive rights literature understates the quantity and quality of “editorial discretion” inherent in application-layer platforms such as search engines.<sup>193</sup>

The literature has identified at least two different ways that search engine operations could potentially be expressive. The first is that the *content* of the indexed sites could be attributed to the search engine.<sup>194</sup> Under this approach, neutrality regulations would essentially require “forced speech” by requiring certain third-party content to be displayed. This argument, however, seems unpersuasive. As Oren Bracha and Frank Pasquale have written, users are unlikely “to see search engines as endorsing the content of indexed websites.”<sup>195</sup> Further, and similarly to network access providers, various laws explicitly prevent search engines (and other online providers) from being associated with third-party content they display. As noted earlier, these provisions include the Digital Millennium Copyright Act’s safe harbor provision against copyright claims (Section 512),<sup>196</sup> and the Communications Decency Act’s protection against tort claims for displaying third-party content (Section 230).<sup>197</sup>

The second—and more persuasive—potential speech interest is the *rankings* themselves.<sup>198</sup> Under this view, Google’s construction of the algorithm by which it processes queries and ranks results is potentially active speech that involves significant editorial discretion. At least one

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<sup>192</sup> See *supra* text accompanying notes 132 & 144. See also *Search King, Inc. v. Google Tech., Inc.*, No. CIV-02-1457-M, 2003 U.S. Dist. LEXIS 27193, at \*9 (W.D. Okla. May 27, 2003) (identifying initial question as whether “Pageranks [are] constitutionally protected opinions”).

<sup>193</sup> See Goldman, *Search Engine Bias*, *supra* note 37, at 189-92; Grimmelman, *supra* note 10, at 455 (“Search inevitably requires some form of editorial control.”).

<sup>194</sup> Bracha & Pasquale, *supra* note 5, at 1189-90 (identifying content of indexed sites and ranking algorithms as potential forms of protected expression).

<sup>195</sup> *Id.* at 1189-92.

<sup>196</sup> 17 U.S.C. § 512(a).

<sup>197</sup> 47 U.S.C. § 230.

<sup>198</sup> Bracha & Pasquale, *supra* note 5, at 1193.

court has explicitly adopted this view,<sup>199</sup> and the literature has further articulated why ranking algorithms are expressive. Eric Goldman and Christopher Yoo, for instance, have explained in detail the various subjective human inputs that are required in the never-ending tailoring of search algorithms.<sup>200</sup> Although Google’s algorithm is programmed to run automatically, its engineers must make thousands of subjective and ever-changing decisions regarding how the algorithm should work.<sup>201</sup>

Critically, these various subjective decisions often involve content-related judgments that fall more easily into the First Amendment’s traditional zones of protection. Google recently announced, for instance, that it would change its algorithm in response to a merchant who gamed the rankings by bullying its customers online (and thus attracting more links).<sup>202</sup> Other decisions relate more directly to political speech. Consider, for example, the practice of “Google bombing,” where users intentionally try to manipulate the search rankings for a given query. Before the 2004 election, users attempted—through a “bombardment” of links—to associate the term “miserable failure” with President George W. Bush’s election home page.<sup>203</sup> Although Google was initially slow to “fix” these display results, it acted more quickly in the 2008 campaign season to prevent Google bombs of that year’s presidential candidates.<sup>204</sup>

The larger point is that search rankings in response to queries are not merely an automated display, but represent a content-related—and iterative—*interaction* between users and the ranking algorithm. By

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<sup>199</sup> *Search King*, 2003 U.S. Dist. LEXIS 27193, at \*11-12 (“PageRanks are opinions - opinions of the significance of particular web sites as they correspond to a search query.”). The few other cases that have considered similar issues have ruled for Google on First Amendment grounds, but on different (or unclear) grounds. *Langdon v. Google*, 474 F. Supp. 2d 622, 629-30 (D. Del. 2007); *Kinderstart.com, LLC v. Google, Inc.*, No. C06-2057JF(RS), 2007 WL 831806, at \*13-16 (N.D. Cal. Mar. 16, 2007).

<sup>200</sup> See Goldman, *Search Engine Bias*, *supra* note 37, at 189-92 (“[T]he choice of which factors to include in the ranking algorithm, and how to weight them, reflects the search engine operator’s editorial judgments about what makes content valuable.”); Yoo, *supra* note 5, at 707-08 (“[T]he content that they [intermediaries like Google] select and the manner in which they present them represent a distinct editorial voice that constitutes the primary source of value they provide to end users.”).

<sup>201</sup> Grimmelman, *supra* note 10, at 455.

<sup>202</sup> Bianca Bosker, *Google to Punish No-Good Sites with Revised Search Rankings*, HUFFINGTON POST, Dec. 1, 2010, available at [http://www.huffingtonpost.com/2010/12/01/google-search-rankings\\_n\\_790732.html](http://www.huffingtonpost.com/2010/12/01/google-search-rankings_n_790732.html).

<sup>203</sup> Frank Pasquale, *Beyond Innovation and Competition: The Need for Qualified Transparency in Internet Intermediaries*, 104 NW. U. L. REV. 105, 123-24 (2010).

<sup>204</sup> *Id.* See also Joshua Rhet Miller, *Unlike Bush's 'Google Bomb,' Google Quickly Defuses Obama's*, FOX NEWS, Jan. 30, 2009, available at <http://www.foxnews.com/story/0,2933,485632,00.html>.

dictating search procedures, access regulations do not merely threaten the efficiency of Google's ranking protocols, they also affect the user's ability to obtain the most relevant result based on her queries. And because the search process is iterative and continually revises its results based on user input, access regulations will make it harder for future users to obtain the most relevant result. In this sense, the goal of participatory democracy is arguably better served by *prohibiting* access regulations that would distort optimal search results.

This iterative "conversation" between application and user is completely distinct from the transmission functions of network-layer platforms.<sup>205</sup> Admittedly, network transmission functionality does involve some subjective judgment that helps the consumer such as removing viruses, identifying malware, and implementing other security-related functions. These security functions, however, are not content-generating—nor can they be framed as a conversation between company and user. Instead, these functions help the user harmlessly obtain the content she herself requests.<sup>206</sup> With search engines, by contrast, the user and the application are interacting in a dynamic and iterative process to generate the most relevant content for a given query.

Finally, although I have limited the analysis to search engines, the expressive aspects of social network sites and other applications are even stronger—as the recent democratic uprisings around the Middle East that relied on social networking tools have illustrated.<sup>207</sup> Indeed, activists' increased use of social networking sites like Twitter, Facebook, and Flickr have created new challenges for the companies, as illustrated in a recent New York Times article:

Th[e] new role for social media has put these companies in a difficult position: how to accommodate the growing use for

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<sup>205</sup> Goldman, *Revisiting Search Engine Bias*, *supra* note 40, at 10 (“[T]he physical layer plays a different role in the information ecosystem than the content layer, which means the exercise of editorial control at the different layers has very different effects on consumers.”).

<sup>206</sup> Bramble, *supra* note 96, at 79 (“[T]hese network management practices all seek to ensure the rapid and objective satisfaction of a user's request, not to provide any content or speech above and beyond what the user has requested. Thus, the role of the Internet access provider is conveyance rather than expression[.]”).

<sup>207</sup> See, e.g., David D. Kirkpatrick & Mona El-Naggar, *Wired, Educated and Shrewed, Young Egyptians Guide Revolt*, N.Y. TIMES, Feb. 10, 2011; Jennifer Preston, *Syria Restores Access to Facebook and YouTube, Raising Fears of Monitoring Users*, N.Y. TIMES, Feb. 10, 2011.

political purposes while appearing neutral and maintaining the practices and policies that made these services popular in the first place.<sup>208</sup>

For purposes here, what matters is not what the companies ultimately do, but instead that these are rather obvious examples of subjective editorial decisions that would be very difficult to regulate in a content or viewpoint-neutral manner.

## V. INFRASTRUCTURAL SCARCITY—A NEW FRAMEWORK FOR FIRST AMENDMENT CHALLENGES TO PLATFORM ACCESS REGULATIONS

In this section, I propose a new conceptual framework—“infrastructural scarcity”—for analyzing media platform access regulations under the First Amendment. This framework transcends and synthesizes the positive and negative rights approaches of the traditional media access debate in novel ways—borrowing the best aspects from each, and applying them to modern technology. Accordingly, this section first defines the new framework, and then outlines its normative benefits.

### A. *Defining the Framework*

As explained earlier, First Amendment scrutiny of media access regulations currently varies by platform technology.<sup>209</sup> I propose that courts replace the current approach—not with pure platform neutrality—but instead with one that focuses on the platform’s *layer*. Formally, the framework can be defined in simple terms. Courts should apply relaxed scrutiny to access regulations of (1) network-layer platforms that (2) consist of physically “scarce” infrastructure. Access regulations of other platforms—both application-layer and non-scarce network-layer platforms—should be subjected to heightened First Amendment scrutiny. Below, I consider each prong in turn. (Part VI will apply the framework more formally to modern doctrine).

The first requirement—that the platform be a *network-layer* platform—is straightforward. The primary significance of this prong is

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<sup>208</sup> Jennifer Preston, *Social Media Sites Face Quandary Over Activists’ Use*, N.Y. TIMES, Mar. 28, 2011.

<sup>209</sup> See *supra* text accompanying notes 63-71.

that it excludes essentially all application-layer access regulations from relaxed scrutiny. Thus, neutrality regulations applied to search engines, social networking sites, or application programming interfaces would all trigger heightened scrutiny.

Not all network-layer platforms, however, are created equal—nor do all of them require access regulations. The framework’s second prong therefore requires that the network-layer platform consist of “scarce” physical infrastructure. This prong—though admittedly more difficult to administer—is the primary means to ensure that access regulations are applied narrowly in those contexts where they are most appropriate.

The central concept of scarcity—as I use the term—is that users lack meaningful alternatives to the platform at issue. To be “scarce,” a platform must not only be uncompetitive, it must also be largely uncontestable.<sup>210</sup> Courts should therefore be concerned not merely with whether competitive alternatives to the platform exist, but with whether entry costs are low enough that new entrants pose a credible threat. In this respect, my concept of scarcity goes beyond the traditional sense of “finiteness,” and relies heavily on the contestability of the network-layer platform’s market.

In practice, the second prong is most likely to apply to network transmission infrastructure, which is generally characterized by enormous barriers to entry on both the supply and demand side.<sup>211</sup> It is in this context where access regulations are more easily justified. The most obvious examples of such scarce platforms are broadband access and cable access infrastructures.

It is possible, however, for network-layer platforms to be *non-scarce*. In these contexts, courts should apply heightened scrutiny to access regulations. For instance, newspapers—under my definition—are arguably network-layer platforms in that the physical paper is the foundational transmission platform of the content. Newspapers, however, would obviously not qualify as being scarce. For one, they face significant competition.<sup>212</sup> Further, the newspaper market is inherently contestable because entry costs have become extremely low. Indeed, the intense competition that the Internet has generated—essentially exposing

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<sup>210</sup> On contestability, see *supra* note 155.

<sup>211</sup> See *supra* text accompanying notes 115-118.

<sup>212</sup> The FCC recently released a report documenting the intense competition that modern newspapers face. FCC, *The Information Needs of Communities: The Changing Media Landscape in a Broadband Age* 39-43 (2011), available at <http://www.fcc.gov/info-needs-communities> (FCC Media Report).

all newspapers to global competition from other newspapers and content sources—illustrates this inherent contestability.

One important question, however, in determining scarcity is whether a given platform is a substitutable competitor to another platform. For instance, one could potentially argue that broadband platforms are non-scarce because newspaper platforms compete with them in transmitting content. The proper test then, I would argue, is whether a given platform provides a *materially complete* substitute for all functions of the other platform. In short, can one network platform essentially do everything that the other network platform can do?

Applying this “complete substitute” approach, we can see that broadband access platforms provide virtually every type of content and service that newspapers can provide. They are, in short, a complete substitute. Newspapers, however, can only provide a small fraction of the functionality and content that the Internet provides. Accordingly, newspapers cannot be the type of competition that makes broadband access platforms non-scarce. Broadband platforms, however, can render newspapers non-scarce.<sup>213</sup>

#### B. *Defending the Framework*

In this section, I outline the normative policy benefits of my proposed framework. Critically, my proposal synthesizes the traditional positive and negative rights approaches in novel ways. In particular, it incorporates the strongest policy insights of each, and discards those aspects of theories that are ill suited to modern media platforms.

To begin, my proposed framework largely shares the normative policy goals of the positive rights theorists. Specifically, the framework assumes that promoting diverse information and democratic participation are important First Amendment values.<sup>214</sup> It also recognizes that affirmative government intervention is sometimes required to fulfill these goals. These values are reflected in the framework’s relaxed scrutiny for regulations of scarce network-level platforms—particularly broadband

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<sup>213</sup> Arguably, this same logic potentially applies to broadcasting and cable platforms as well—that is, the Internet is increasingly providing a complete substitute to both of these traditional platforms. The implication of this trend under my framework is that these older network-layer platforms can no longer be scarce in the age of the Internet. I will analyze these important questions more fully in Part VI.

<sup>214</sup> See Ammori, *supra* note 54, at 9-10 (discussing values of “promoting multiple speakers” and promoting “substantive democratic . . . goals and providing sources).

networks.<sup>215</sup> The fact that private owners enjoy such total control over the foundational inputs of all other higher-layer applications and content poses an excessive danger for democratic speech.<sup>216</sup> By focusing simply on government overreach, the negative rights literature ignores the potentially radical implication of allowing network owners to control these platforms with complete—and First Amendment-enforced—impunity.<sup>217</sup> The government must retain the tools to protect and promote speech in the face of such consolidated private power.

The dangers of such consolidated control extend beyond traditional access concerns, and apply to innovation as well. Indeed, one goal of the article is to reframe the media access debate in terms of protecting not merely access, but innovation as well.<sup>218</sup> In the modern age, protecting low-cost innovation is equally critical to enhancing speech because innovation facilitates *new forms* of speech.

Video expression is arguably the best example of how protecting innovation promotes modern speech. As Lawrence Lessig and others have written, user-created video is becoming a new lingua franca of the digital generation.<sup>219</sup> In short, we increasingly “talk” through video production and consumption. One fear, then, of centralized gatekeeper control is that broadband access providers will thwart the rise of new video competitors, applications, and transmission protocols. This fear is precisely why Comcast’s recent surreptitious blocking of peer-to-peer protocols is so potentially harmful.<sup>220</sup> Such practices threaten to stifle new forms of

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<sup>215</sup> In this respect, I largely side with the positive rights theorists with respect to their analyses of *network-layer* platforms.

<sup>216</sup> NUNZIATO, *supra* note 5, at xv (noting importance of “regulating these dominant private conduits of expression in order to facilitate the conditions necessary for democratic self-government”).

<sup>217</sup> Reply Comments of Commc’ns Workers of America at 13-14, Preserving the Open Internet, GN Docket No. 09-191 (FCC Apr. 26, 2010) (arguing that granting providers total control “would frustrate broadband’s ability to play its role in the lifeblood of democracy”); *NASUCA Reply Comments*, *supra* note 103, at 29-30 (“Let us be clear: If the cable or telecommunications network owners are allowed to control the entirety of what transpires on ‘their’ networks, that is the end of the Internet as we know it.”).

<sup>218</sup> Pasquale, *supra* note 203, at 124-25 (“Innovation has been the central focus of Internet law and policy.”).

<sup>219</sup> Lawrence Lessig, REMIX 68-69 (2008).

<sup>220</sup> Specifically, the FCC found that Comcast was intentionally interfered with customers trying to uploads data using peer-to-peer protocols and services such as BitTorrent by using “reset” packets to sever the connection. *2008 Comcast Order*, *supra* note 6, at 13031-32.

video transmission by limiting protocols that are efficient at transmitting high-data video files.<sup>221</sup>

In sum, the framework borrows the traditional normative goals of positive theorists but partially reframes them to incorporate the goals of innovation. The framework, however, borrows important insights from the negative rights literature as well.<sup>222</sup> In particular, it incorporates the negative rights literature's traditional skepticism of government's ability to implement and administer regulations fairly.<sup>223</sup> The positive rights literature has simply not grappled with the information and administrative costs that access regulations require. For this reason, the framework narrowly limits the types of access regulations that can enjoy relaxed scrutiny. Specifically, it excludes regulations of application-layer platforms and non-scarce network-layer platforms.

With respect to these platforms, I agree with the negative rights theorists that access regulations are unnecessary. In fact, the Internet's traditional architecture satisfies the goals of positive rights theorists far better—and at much lower administrative costs—than application-layer access regulations could. For instance, assuming that one's goals include participatory democracy and promoting a diversity of sources, the application layer currently provides both—many times over. Further, even if an individual platform becomes dominant, the unique architectural features of the application layer make permanent gatekeepers unlikely (so long as the network-layer platform remains neutral).<sup>224</sup>

A separate policy benefit of my proposed framework is that it is flexible, and can easily incorporate new technological innovation. Indeed, flexibility is built into my framework's DNA. In this respect, it is superior to the current platform-specific doctrine, which has struggled to adjust to technological change.<sup>225</sup> For instance, if broadband access networks suddenly become abundant, the framework can accommodate those changes. This flexibility stems from the framework's focus, not upon a specific technology, but upon that technology's relation to alternative competitive technologies.

One final policy benefit is that the proposed framework is consistent with the traditional foundations of First Amendment doctrine in

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<sup>221</sup> *Professors' Amicus Brief*, *supra* note 154, at 39-42.

<sup>222</sup> In this respect, I largely side with the negative rights' literature criticisms of application-layer access regulations.

<sup>223</sup> *See, e.g.*, Yoo, *supra* note 19, at 324-41 (providing overview of "severe implementation problems" accompanying positive rights theories).

<sup>224</sup> *See supra* Part V.A.

<sup>225</sup> *See supra* text accompanying notes 63-71.

the media access and other contexts. To begin, my framework’s reliance on infrastructural considerations is consistent with traditional media access precedents. As I argued earlier, to the extent that the doctrine in this area can be rationalized at all, infrastructural characteristics provide the most compelling organizing principle.<sup>226</sup> My framework simply updates these infrastructural principles for the digital era. In addition, my framework relies on the premise that First Amendment scrutiny should vary depending upon the availability of alternative outlets. This same premise plays an important role in the current doctrine governing reasonable “time, manner, and place” restrictions, which are approved if they are content-neutral and alternative outlets are available.<sup>227</sup> In sum, the framework I advance is not a radical departure from First Amendment precedent, but is in many ways an extension of traditional principles.

## VI. APPLYING THE INFRASTRUCTURAL SCARCITY FRAMEWORK

In this section, I apply a practical guide to courts and scholars to apply the infrastructural scarcity framework to the major media and communications platforms. Although the framework applies most cleanly to digital platforms, I also explore its applicability to traditional media platforms as well. Following this discussion, I consider and address objections to the proposed framework.

### A. *Applying the Framework to Modern Media Platforms*

#### 1. Doctrinal Overview

In analyzing platforms access regulations, courts must first decide whether the regulated conduct is expressive, and thus “covered” under the First Amendment.<sup>228</sup> Courts have generally adopted a two-part test in determining coverage questions.<sup>229</sup> First, the regulated activity must be intended to convey a particular message. Second, that message must be

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<sup>226</sup> See *supra* text accompanying notes 73-78.

<sup>227</sup> *Ward v. Rock Against Racism*, 491 U.S. 781, 791 (1989) (stating that time, manner, place restrictions are allowed if they “leave open ample alternative channels for communication of the information”) (quoting *Clark v. Cmty. For Creative Non-Violence*, 468 U.S. 288, 294 (1984)).

<sup>228</sup> Bracha & Pasquale, *supra* note 5, at 1189-90 (discussing the “basic distinction in First Amendment jurisprudence between coverage and protection”).

<sup>229</sup> Benjamin, *supra* note 71, at 1688-89 (outlining Court’s “two-part test”); Bramble, *supra* note 96, at 87-88 (same).

very likely to be understood by the audience.<sup>230</sup> If the activity is not expressive under this test, no First Amendment scrutiny applies.

Assuming coverage exists, courts must then decide on the proper scope of protection for the expressive conduct.<sup>231</sup> If courts find the regulation to be content-neutral, then it applies intermediate scrutiny under the traditional *O'Brien* test.<sup>232</sup> In the media access context, courts would also likely require the government to show “substantial evidence” of concrete harms—a standard Ellen Goodman has called “intermediate plus.”<sup>233</sup> If, by contrast, the courts find the regulation to be content or viewpoint-based, then strict scrutiny applies—a classification that is essentially fatal to the regulation.<sup>234</sup>

## 2. Broadband Access Networks

My proposed framework calls for relaxed scrutiny of access regulations of network-layer broadband platforms. Doctrinally, courts could reach this conclusion in at least two different ways. First, a court could find that broadband transmission is not “expressive,” and therefore implicates no speech interests.<sup>235</sup> Alternatively, assuming broadband transmission is expressive, courts could find that it is a content-neutral regulation justified under intermediate scrutiny.<sup>236</sup>

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<sup>230</sup> *Johnson*, 491 U.S. at 403-04 (1989) (quoting *Spence*, 418 U.S. at 410-11).

<sup>231</sup> Bracha & Pasquale, *supra* note 5, at 1190 (discussing scope of protection).

<sup>232</sup> *United States v. O'Brien*, 391 U.S. 367, 376-77 (1968). Under the *O'Brien* test, content-neutral regulations are justified if they are: “[1] within the constitutional power of the Government; [2] if it furthers an important or substantial governmental interest; [3] if the governmental interest is unrelated to the suppression of free expression; and [4] if the incidental restriction on alleged First Amendment freedoms is no greater than is essential to the furtherance of that interest.” *Id.*

<sup>233</sup> Goodman, *supra* note 3, at 1219-20 (arguing that Turner applied test “best described as ‘intermediate plus’”). See also Yemini, *supra* note 18, at 35-36 (discussing “intermediate plus” standard).

<sup>234</sup> Eugene Volokh, *Parent-Child Speech and Child Custody Speech Restrictions*, 81 N.Y.U. L. REV. 631, 665 (2006) (strict scrutiny standard in free speech context is “‘strict’ in theory and fatal in fact”) (quoting Gerald Gunther, *The Supreme Court, 1971 Term - Foreword: In Search of Evolving Doctrine on a Changing Court: A Model for a Newer Equal Protection*, 86 HARV. L. REV. 1, 8 (1972)).

<sup>235</sup> For a recent thorough analysis of whether broadband transmission is expressive, see generally Benjamin, *supra* note 71; *Public Knowledge Reply Comments*, *supra* note 36, at 18-21.

<sup>236</sup> Susan Crawford, *Reading Brown v. Entertainment Merchants Ass’n*, SUSAN CRAWFORD BLOG, June 27, 2011, available at <http://scrawford.net/blog/reading-brown-v-entertainment-merchants-assn/1445> (providing analysis of the “key legal fight” of whether regulations would be classified as content-neutral).

Courts, I argue, should adopt the former and find that broadband transmission—either wireline or wireless—is not an expressive activity covered by the First Amendment. Even assuming (problematically) that transmission of data packets can convey a particular message, modern audiences (as I argued in Part II) do not attribute the content transmitted on networks to the platform owner. Indeed, the law itself prohibits this association from being made.<sup>237</sup> The policy rationales underlying the framework further support this conclusion. Broadband access platforms are not only foundational inputs for all Internet-enabled speech, they also consist of the mostly clearly scarce and uncontestable infrastructure. The potential dangers of private control are therefore the highest at the precise layer where market forces provide the least protection. In this context, it is critical that courts give legislatures wide ability to protect speech and innovation.

Further, and as detailed earlier, finding transmission to be expressive gives providers incentives to alter the traditional infrastructure in ways that more clearly link transmission functionality to content. Indeed, it would create perverse incentives in that platform owners could strengthen their constitutional protections by engaging in more harmful forms of discrimination. If such discrimination becomes a *constitutional* right, the public will have no legislative or regulatory oversight at all over decisions that have enormous impacts on modern democratic speech.

Assuming, however, that transmission functionality is expressive,<sup>238</sup> courts should—for similar reasons—find that the regulations are content neutral, and justified under intermediate scrutiny.<sup>239</sup> In particular, recent behavior by broadband access providers will help satisfy the “intermediate plus” requirement of substantial evidence of harm—which is likely to be the most critical issue.<sup>240</sup> The

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<sup>237</sup> See *supra* text accompanying notes 146-147.

<sup>238</sup> For examples of scholars concluding that broadband access are likely expressive under *Turner*, see Goodman, *supra* note 3, at 1228; Yemini, *supra* note 18, at 21-24. Earlier, I argued, however, that the *Turner* analogy is weaker when network layers are more fully incorporated into the analysis. See *supra* at \_\_\_.

<sup>239</sup> For an industry example concluding regulations would be content neutral, see Reply Comments of Vonage Holdings Corp. at 37-39, Preserving the Open Internet, GN Docket. No. 09-191 (FCC Apr. 26, 2010).

<sup>240</sup> These specific concrete instances of harm are outlined in the FCC’s *2010 Open Network Order*, *supra* note 6, at 17925-27 (“These dangers to Internet openness are not speculative or merely theoretical. Conduct of this type has already come before the Commission in enforcement proceedings.”). These actions therefore suggest that discrimination is no longer conjecture, and that concrete harms will be easier to meet. See Yemini, *supra* note 18, at 33-37 (noting concern—prior to the Comcast proceeding—that

FCC’s recent proceeding against Comcast provides a concrete example of the harm that broadband access providers could inflict in a complete absence of supervision. In that proceeding, the FCC found that Comcast intentionally interfered with users transmitting files using peer-to-peer services—and that such interference potentially threatened the future of online video competition.<sup>241</sup> The Comcast case, however, is not the only example of such harms.<sup>242</sup>

Further, by limiting the regulations only to the scarce transmission infrastructure, courts could easily find that the regulations impose restrictions “no greater than is essential” to further the important government interests of promoting innovation, diverse voices and participatory democracy.<sup>243</sup> The larger point is that, regardless of the specific doctrinal path a court chooses, it is imperative that broadband access regulations be upheld. They are—by far—the most important of the modern platform access regulations.

### 3. Internet Application-Layer Platforms

My proposed framework calls for higher scrutiny of access regulations for application platforms. Doctrinally, courts could achieve this result in two ways. First, they could find the regulations to be content-based, and thus invalid under strict scrutiny. Alternatively, they could find that the regulations—while content-neutral—do not satisfy the *O’Brien* intermediate scrutiny test.<sup>244</sup> In general, intermediate scrutiny arguably provides the best balance of speech protections and regulatory flexibility. The approach courts ultimately adopt, however, will necessarily be fact-specific and will turn on the precise details of the access regulation.

Using search engines as an example, the first issue is whether search functionality is expressive.<sup>245</sup> For reasons detailed in Part IV, I argue that it is indeed covered under the First Amendment. The expressive aspect of search engine functionality is not in the third-party content, but instead in the subjective and content-motivated decisions

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government may not be able to who substantial evidence of actual harms as required under *Turner*).

<sup>241</sup> 2008 *Comcast Order*, *supra* note 6, at 13050-60.

<sup>242</sup> 2010 *Open Network Order*, *supra* note 6, at 17925-27.

<sup>243</sup> *O’Brien*, 391 U.S. at 376-77. I am assuming that meeting the other prongs of the *O’Brien/Turner* test will relatively uncontroversial.

<sup>244</sup> *O’Brien*, 391 U.S. at 376-77.

<sup>245</sup> *Search King, Inc.*, 2003 U.S. Dist. LEXIS 27193, at \*9; Bracha & Pasquale, *supra* note 5, at 1189-90.

inherent to the ranking algorithm.<sup>246</sup> Critically, this algorithm requires and incorporates user-generated input to create optimal search results in response to user queries.<sup>247</sup> Interference with this iterative process—this “conversation”—would therefore harm both current and future users’ ability to rely on the search engine to deliver the most relevant queries.

The more difficult question with search engines regards the proper scope of protection. This question, in turn, depends on whether the regulation is content-neutral. It is, frankly, difficult to determine *ex ante* whether search engine regulations as enacted would be content-neutral—the devil would be in the details. It is certainly easy to imagine a set of regulations that would be rather clearly content-based—particularly ones that impose a normative arbitrary baseline as to what constitutes “neutral” rankings or indexing. In these instances, strict scrutiny seems most appropriate. However, other potential regulations—such as disclosure requirements regarding the algorithm—would be a closer call.<sup>248</sup>

The optimal balance, arguably, is to apply the “intermediate plus” standard described above. This standard would grant courts ample grounds to strike down regulations—either because they “burden substantially more speech than is necessary”<sup>249</sup> or because the government cannot provide substantial evidence of “real” harms.<sup>250</sup> With respect to the former, regulations that create suboptimal search results for current and future users potentially implicate far more speech than the regulations contemplate. With respect to the latter, the existence of alternative “intermodal” outlets suggests that the harms are more conjectural than real.<sup>251</sup>

At the same time, intermediate plus scrutiny ensures that the government could theoretically adopt a more narrow regulation—such as limited disclosure requirements—that courts would feel comfortable approving. Strict scrutiny, by contrast, would essentially eliminate all

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<sup>246</sup> See *supra* text accompanying notes 198-201.

<sup>247</sup> See *supra* at \_\_\_.

<sup>248</sup> For examples of scholars proposing disclosure requirements, see Pasquale, *supra* note 41, at 299. For an early example, see Lucas D. Introna & Helen Nissenbaum, *Shaping the Web: Why the Politics of Search Engines Matters*, 16 INFO. SOC. 169, 181 (2000).

<sup>249</sup> *Turner I*, 512 U.S. at 662 (requiring that “the means chosen do not burden substantially more speech than is necessary to further the government’s legitimate interests.”) (internal citation omitted).

<sup>250</sup> *Turner I*, 512 U.S. at 664 (stating that government “must demonstrate that the recited harms are real, not merely conjectural, and that the regulation will in fact alleviate these harms in a direct and material way”).

<sup>251</sup> See *supra* text accompanying notes 175.

government oversight. In sum, while the framework generally supports striking down application-layer access regulations, intermediate plus scrutiny gives courts room to do so while leaving at least a moderate amount of flexibility to the legislature.

#### 4. Cable and Broadcasting Regulations

My framework has some potentially controversial implications for cable and broadcast regulations. In particular, to the extent broadband networks are complete substitutes for these platforms, the framework's logic suggests that access-related regulations of both technologies should be subjected to heightened scrutiny. That moment, however, has not quite arrived yet. The information industry is currently in a transition period—and it would be premature to reject all access-related regulations simply because broadband networks now exist. While the current First Amendment doctrine in these contexts is notoriously messy, my framework—by focusing on infrastructural characteristics—can provide guidance to courts in determining which regulations continue to be necessary (at least temporarily).

With respect to cable, the crux of the analysis under my framework is whether cable infrastructure should be considered “scarce.” The short answer is “yes, for now.” Accordingly, access-related regulations such as must-carry,<sup>252</sup> program access,<sup>253</sup> ownership limits,<sup>254</sup> and public access requirements<sup>255</sup> should continue to be upheld.

At present, cable network infrastructure remains characterized by the same barriers to entry associated with other types of network infrastructure. In addition, it has consolidated rapidly in recent years.<sup>256</sup> And while satellite television is an important competitor, its success has relied—and continues to rely—on mandated access regulations such as program access requirements.<sup>257</sup> When courts recently upheld these

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<sup>252</sup> 47 U.S.C. §§ 534, 535 (requiring cable operators to carry broadcasters' programming).

<sup>253</sup> 47 U.S.C. § 548 (requiring cable operators to make affiliated program available on nondiscriminatory terms).

<sup>254</sup> 47 U.S.C. § 533 (imposing horizontal ownership limits).

<sup>255</sup> 47 U.S.C. § 531 (granting cable franchise authorities the power to require capacity be set aside for “public, educational, or governmental use”).

<sup>256</sup> Review of the Commission's Program Access Rules (*Program Access Order*), 22 FCC Rcd 17791, 17829-30 (2010) (report and order and notice of proposed rulemaking) (“The cable industry has continued to consolidate since 2002.”).

<sup>257</sup> *Id.* at 17802 (concluding that “the concerns upon which Congress based the program access provisions persist in the marketplace”).

program access requirements, they specifically noted cable providers' continuing ability to discriminate against competitive services.<sup>258</sup>

Further, online video providers have yet to mature into full competitors. It is clear, of course, that broadband networks have the *potential* to completely replace cable video service. And at the point when broadband networks develop the capacity and content to truly rival cable service, cable infrastructure should no longer be considered scarce. In that situation, users and creators would enjoy a potentially infinite range of alternative outlets of video expression. The recent rise of Netflix and iTunes as competitors to cable providers offers a glimpse of how this future may unfold.<sup>259</sup>

That said, it would be premature to conclude that broadband is *currently* a substitute for cable video service. The bandwidth capacity in most of the country simply cannot provide the video quality that users now expect from their cable service.<sup>260</sup> And while broadband speeds are admittedly improving, these networks are still many years—if not decades—away from offering the type of high-definition capacity necessary to make broadband a full competitor to cable across the country.

A further obstacle for aspiring online video competitors is that cable providers operate the higher-speed networks they require as an input to offer competitive video service. The threat is that cable companies can leverage their physical infrastructure to thwart emerging competition in a variety of ways—everything from outright blocking to data caps that would, in practice, limit video consumption.<sup>261</sup> In this respect, the single

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<sup>258</sup> In deferring to the FCC's extension of program access rules, the D.C. Circuit explained that "the four largest cable operators are still vertically integrated with six of the top 20 national networks, some of the most popular premium networks, and almost half of all regional sports networks." *Cablevision Sys. Corp. v. FCC*, 597 F.3d 1306, 1314 (D.C. Cir. 2010).

<sup>259</sup> *2010 Open Networks Order*, *supra* note 6, at 17916-18 (stating that cable providers view companies like Netflix, iTunes and Hulu as "a potential competitive threat to their core video subscription service").

<sup>260</sup> The FCC has recently defined broadband in terms of ability to receive and originate video. However, "approximately 14 to 24 million Americans remain without broadband access capable of meeting the requirements set forth in section 706." *Matter of Inquiry Concerning the Deployment of Advanced Telecommunications Capability*, 25 FCC Rcd 9556, 9557-58 (2010) (sixth broadband deployment report).

<sup>261</sup> This precise fear was an important motivation for demanding nondiscriminatory access requirements as conditions in the Comcast-NBC Universal merger. *Comcast-NBC Order*, *supra* note 6, at 4262-76 ("We find that, as a vertically integrated company, Comcast will have the incentive and ability to hinder competition from other OVDs, both traditional MVPDs and standalone OVDs, through a variety of anticompetitive strategies.").

best way to promote video competition and innovation is for policymakers to adopt strong network neutrality requirements. Indeed, one irony of the libertarian critiques of network neutrality regulations is that such requirements would make other types of access regulations far less necessary.

I am more skeptical, however, that regulations that impose content programming requirements—such as local news coverage and children’s programming—should be constitutional.<sup>262</sup> These requirements are essentially application-layer regulations in that they seek to require that certain types of content be provided. These are precisely the types of requirements that application-layer abundance makes unnecessary.

The analysis, however, is much different with respect to broadcasting. Unlike cable, the infrastructural concerns that motivated broadcast access regulations no longer exist. Broadcasting is subject to competition from multiple platforms that provide complete substitutes—broadband, satellite radio, and cable. Accordingly, my framework implies that broadcast regulations should be subjected to higher scrutiny. Because, however, broadcasting regulations do not fit easily into one category, I consider them below at a somewhat more granular level.

To begin, regulations of broadcasting *content* are the easiest to address. In this context, strict scrutiny seems very compelling. Although there is an extensive literature (and a few recent judicial opinions) explaining why indecency regulations should be unconstitutional,<sup>263</sup> my concern is with content regulations that are motivated by *access* concerns. For instance, equal time rules and the fairness doctrine are both examples of regulations motivated by larger public access concerns, including preventing gatekeeper abuse.<sup>264</sup> These access-related concerns, however, are no longer warranted in light of the immense competition broadcasting platforms now face from perfectly substitutable platforms.

The harder questions involve access-related regulations that are less-explicitly content-based, but are instead more structurally focused—in particular, media ownership limits.<sup>265</sup> On the one hand, the fact that broadcast spectrum is no longer “scarce”—in the sense of being uncompetitive and uncontestable—suggests that ownership limits are no

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<sup>262</sup> For instance, the FCC’s order approving the Comcast-NBC Universal merger imposed both kinds of programming requirements. *Comcast-NBC Order*, *supra* note 6, at 4242 (accepting and incorporating voluntary commitments relating to localism and children programming requirements).

<sup>263</sup> *Fox Television Stations v. FCC*, 613 F.3d 317 (2d Cir. 2011) (striking down FCC’s indecency regulations on First Amendment grounds).

<sup>264</sup> *See supra* note 74.

<sup>265</sup> 47 C.F.R. § 73.3555 (multiple ownership requirements).

longer necessary to protect and promote speech. Indeed, ownership caps may actually limit broadcasters' ability to compete with these new sources by preventing mergers that would allegedly promote efficiencies and exploit economies of scale.

At the same time, however, ownership limits—similarly to cable access regulations—may be temporarily necessary until today's digital platforms fully mature. The FCC, for instance, recently concluded that online sources do not yet provide *local* news coverage in the way that local broadcasters and newspapers do.<sup>266</sup> Thus, ownership limits may be necessary until new online sources fill this gap—particularly at the local level. Accordingly, broadcast regulations that are more structural should arguably trigger intermediate plus scrutiny instead of strict scrutiny—at least temporarily.<sup>267</sup> Once again, though, strong network neutrality requirements would reduce the need for these sorts of access regulations by ensuring a wider range of content and innovation.

#### B. *Objections to the Framework*

One objection to my proposed framework is that my analysis emphasizes theoretical and policy concerns over formal doctrinal analysis. To this charge, I plead guilty. I would, however, argue that First Amendment doctrine—at least in the media access context—is largely results-driven.<sup>268</sup> These cases seem to be driven more by policy concerns—and, I would argue, infrastructural considerations—than by formal doctrine. For this reason, I have focused on more foundational policy issues, reasoning that the doctrine would respond accordingly. Thus, in instances where I call for relaxed scrutiny, I am more concerned with upholding the regulation than with determining whether courts should rule on coverage or scope of protection grounds.

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<sup>266</sup> *FCC Media Report*, *supra* note 212, at 5-6 (noting that new digital media has caused “a shortage of local, professional, accountability reporting).

<sup>267</sup> *But see* Chen, *supra* note 18, at 1448 (“To the extent that government structures media markets to affect content, courts should apply strict scrutiny.”).

<sup>268</sup> Chen, *supra* note 18, at 1453 (noting that “[c]ourts enjoy enormous freedom to engage in highly contextual, ad hoc judgments” in this context). Notably, courts have also been vague about the precise scrutiny they are applying in these cases—and indication that the policy was driving the result. For instance, the Court applied no specific scrutiny in *Red Lion*. Campbell, *supra* note 63, at 783 (“In *Red Lion*, the Court never discussed the appropriate standard of review.”). The Court was similarly unclear in *Reno*. Yemini, *supra* note 18, at 17 (noting the “Court’s failure, or unwillingness, to make clear the standard of First Amendment review for the Internet”).

Another potential objection is that my proposed framework focuses too narrowly on access-related platform regulations. In reality, media platforms face other types of government interventions that also potentially raise First Amendment questions. One example is privacy regulations—in particular, *online* privacy. In the past year alone, Congress and federal agencies have devoted significant resources to investigating—and proposing new regulations for—online privacy.<sup>269</sup>

Admittedly, applying my proposed framework to privacy regulations is beyond the scope of the article. One reason for my hesitation is that privacy is itself an extremely vague and complicated concept—one that incorporates various concerns, only some of which are relevant to the media access literature and the First Amendment more generally. For instance, certain types of privacy violations—such as the abuse of private financial or credit care information—have little relevance at all to First Amendment activities. Government surveillance activities, of course, do potentially chill First Amendment activities—though courts have not traditionally analyzed them within the context of media access doctrine, but instead within Fourth Amendment doctrine.<sup>270</sup> Interestingly, however, there is a potential overlap between privacy and modern media access doctrine to the extent that privacy regulations potentially chill ranking algorithms, or impede innovation in the application layer. The latter raises potentially fascinating First Amendment questions—but ones that I hope to address more fully in a future article.

In addition to privacy, government could also intervene in these areas using antitrust law. Traditionally, of course, antitrust enforcement is seen—like copyright—as compatible with First Amendment protections.<sup>271</sup> My article, however, is concerned primarily with *ex ante* regulation rather than *ex post* actions. That said, my framework does at least provide policy guidance as to when antitrust enforcement is consistent with First Amendment policy goals. In general, the same policy

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<sup>269</sup> For a good overview of recent privacy initiatives, see the Federal Trade Commission's recent report on the state of consumer privacy and policies that government has pursued. FTC Staff Report, PROTECTING CONSUMER PRIVACY IN AN ERA OF RAPID CHANGE, A PROPOSED FRAMEWORK FOR BUSINESSES AND POLICYMAKERS 12-19 (2010).

<sup>270</sup> Interestingly, scholars are beginning to raise arguments that these activities should be viewed as First Amendment threats. For an overview, see Frank Pasquale, *Rethinking Sorrell v. IMS Health: Privacy as a First Amendment Value*, CONCURRING OPINIONS, Apr. 25, 2011, available at <http://www.concurringopinions.com/archives/2011/04/rethinking-ims-health-v-sorrell-privacy-as-a-first-amendment-value.html>.

<sup>271</sup> Chen, *supra* note 18, at 1453; Grimmelman, *supra* note 10, at 452.

concerns that justify relaxed First Amendment scrutiny would also justify increased antitrust enforcement. Thus, antitrust intervention is arguably most justified with respect to ensuring nondiscriminatory behavior by broadband access providers within the network layer. Similarly, the same policy concerns that call for heightened scrutiny of application-layer regulations suggest that antitrust actions relating to *access* concerns would be unnecessary. A more formal antitrust analysis, however, is beyond the scope of the paper.

A final potential objection is that I have imposed an overly rigid formal divide between positive rights and negative rights theorists. In reality, the literature is more diverse and less susceptible to easy classification. It is, of course, true that both the positive and negative rights literature is diverse and nuanced. At the same time, the dichotomy of positive and negative rights is a foundational one that drives many of the literature's various policy preferences. And while there will always be scholars and arguments that do not fit neatly into any category, the formal dichotomy is a useful way to understand—and is faithful to—the state of the literature in the media access context.

#### CONCLUSION

Resolving the First Amendment questions surrounding digital platform access regulations will have enormous consequences for the future of both the information industry and modern speech. This article has argued that the analysis of these emerging questions should not be mired in the outdated frameworks of the past. In particular, courts and scholars must incorporate the technological realities of layered network infrastructure in approaching these questions.

The infrastructural scarcity framework I propose provides a better approach—one that incorporates the best features of both the traditional negative rights and positive rights positions. Specifically, it largely adopts the normative goals of the positive rights literature—which are appropriate given the immense power that network-layer platform owners enjoy. At the same time, the framework adopts the negative rights literature's skepticism of regulation and administrative costs by narrowly applying the framework to a limited set of "scarce" network-layer platforms. In doing so, the proposed framework reflects the importance of retaining regulatory oversight over network-layer platforms, while simultaneously protecting application-layer innovation from unnecessary and harmful regulatory intervention.