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THE COLUMBIA  
SCIENCE & TECHNOLOGY  
LAW REVIEW

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VOL. XX

STLR.ORG

FALL 2018

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ARTICLE

THE NEW IRONY OF FREE SPEECH<sup>†</sup>

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*In his **The Irony of Free Speech**, published in 1996, Professor Owen Fiss argues that the traditional understanding of freedom of speech, as a shield from interference by the state, ended up fostering a system that benefited a small number of media corporations and other private actors, while silencing the many who did not possess any comparable expressive capacity. Conventional wisdom says that by dramatically lowering the access barriers to speech, the Internet has provided a solution to the twentieth-century problem of expressive inequality identified by Fiss and others. As this Article will demonstrate, however, the digital age presents a new irony of free speech, whereby the very system of free expression that provides more expressive capacity to individuals than ever before also systematically diminishes their liberty to speak. The popular view of the Internet as the ultimate promoter of freedom of expression is, therefore, too simplistic. In reality, the Internet, in its current state, strengthens one aspect of freedom (the capacity aspect) while weakening another (the liberty aspect), trading liberty for capacity. This Article will explore the process through which expressive capacity has become a definitive element of freedom in the digital ecosystem, at the expense*

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*of liberty. The process of diminishing liberty in the digital ecosystem occurs along six related dimensions: interference from multiple sources, state-encouraged private interference, multiple modes of interference, new-media concentration, lack of anonymity, and lack of inviolability. The result of these liberty-diminishing dimensions of our current system of free expression, taken together, is that while we may be able to speak more than ever before, it is doubtful that we are able to speak freely.*

I. Introduction.....	120
II. Heightened Expressive Capacity and its Moral Implications .....	127
A. Expressive Capacity as Internal to Freedom .....	127
B. Can Implies Ought.....	135
C. A Technologically-Induced Endowment Effect .....	140
D. A Rich Conception of Autonomy.....	144
III. Diminishing Liberty and its Moral Implications .....	147
A. Interference from Multiple Sources .....	147
1. Broadband Service Providers.....	149
2. Content Distribution Networks and Cloud Providers.....	152
3. Search Engines .....	155
4. Social Media Platforms .....	162
5. Additional Sources.....	171
B. State-Encouraged Private Interference .....	173
C. Multiple Modes of Interference.....	176
D. New-Media Concentration.....	179
E. Lack of Anonymity.....	182
F. Lack of Inviolability .....	189
IV. Conclusion.....	192

## I. INTRODUCTION

Technology mediates our perceptions of the surrounding reality, the way we experience the world and, therefore, our factual beliefs and reasons for action.<sup>1</sup> Specifically, networked information technologies alter our perceptions of spatial and temporal proximity and “define the processes by which bodily boundaries and flows of

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1. *See generally, e.g.,* DON IHDE, POSTPHENOMENOLOGY (James M. Edie ed. 1993).

information across those boundaries are formed, re-formed, and naturalized.”<sup>2</sup> Digital information and communication technologies (ICTs) allow us to store and easily retrieve unprecedented amounts of information but have decreased our ability to store data in our own minds;<sup>3</sup> they enable us to communicate with distant family and friends more easily than ever before, but they also alter the ways in which we begin and maintain (and even define) friendships;<sup>4</sup> smartphones help us pass the time during our morning and evening commutes, but make people less inclined to develop spontaneous “small talk” with other commuters;<sup>5</sup> GPS technology allows us to go anywhere without getting lost, but doesn’t require us to know where we are;<sup>6</sup> digital technologies allow us to work from home, but blur the distinction between work and home.<sup>7</sup> These are just a few examples of how ICTs mediate the way we see and experience the world.

Technology also mediates what we *can* or *cannot* do, by altering, restricting, or increasing our options for action. “The promise to create new practical affordances underlies almost all technological expectations.”<sup>8</sup> Accordingly, the creation of new practical affordances for expression, communication, and choice is probably the trait most commonly and saliently attributed to ICTs.<sup>9</sup> It is

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2. JULIE E. COHEN, CONFIGURING THE NETWORKED SELF 47 (2012).

3. See, e.g., Betsy Sparrow, Jenny Liu & Daniel M. Wegner, *Google Effects on Memory: Cognitive Consequences of Having Information at Our Fingertips*, 333 SCIENCE 776 (2011); Daniel M. Wegner & Adrian F. Ward, *How Google is Changing Your Brain*, 309 SCI. AM. 58 (2013).

4. See generally, e.g., Dean Cocking & Steve Matthews, *Unreal Friends*, 2 ETHICS & INFO. TECH. 223 (2000); Christine Rosen, *Virtual Friendship and the New Narcissism*, 17 NEW ATLANTIS 15 (2007); Adam Briggles, *Real Friends: How the Internet Can Foster Friendship*, 10 ETHICS & INFO. TECH. 71 (2008); Nicholas John Munn, *The Reality of Friendship Within Immersive Virtual Worlds*, 14 ETHICS & INFO. TECH. 1 (2012).

5. Cf. Tsjalling Swierstra & Katinka Waelbers, *Designing a Good Life: A Matrix for the Technological Mediation of Morality*, 18 SCI. & ENGINEERING ETHICS 157, 163 (2012) (making a similar argument with regard to MP3 players).

6. See COHEN, *supra* note 2, at 48.

7. See, e.g., Adrian N. Carr & Philip Hancock, *Space and Time in Organizational Change Management*, 19 J. ORGANIZATIONAL CHANGE MGMT. 545 (2006); Robert Sprague, *Orwell Was an Optimist: The Evolution of Privacy in the United States and Its De-Evolution for American Employees*, 42 J. MARSHALL L. REV. 83 (2008).

8. Swierstra & Waelbers, *supra* note 5, at 164.

9. See generally, e.g., YOCHAI BENKLER, THE WEALTH OF NETWORKS (2006); MANUEL CASTELLS, RISE OF THE NETWORK SOCIETY (2d ed. 2000); Niva Elkin-Koren, *Affordances of Freedom: Users’ Rights in the Digital Era*, 6 JERUSALEM REV. LEGAL STUD. 96 (2012).

important to note, however, that digital technologies may also limit choice and narrow our range of options. For example, the social convention of using mobile devices, maintaining several email accounts, being active in social networks, and so on, may itself be viewed as a type of technologically-originated coercion, whereby participation in society requires embracing such technologies.<sup>10</sup> In addition, even when ICTs can be said to expand the range of options open to their users, they nonetheless dictate the boundaries within which users are able to operate. Twitter enables users to send messages of up to 280 characters (which have by now formed a new category of expression called “tweets”);<sup>11</sup> web browsers allow users to delete their browsing history from their computers, but Google Chrome does not enable users to decide, in advance, that the browser will not save such history; Facebook allows its users to “Like” with a click of a (social) button, but does not enable them to expressly dislike in a similar way;<sup>12</sup> WhatsApp does not allow users to operate their account on more than one mobile device.<sup>13</sup> These are just a few examples of how ICTs mediate our options for action.

A third aspect of technological mediation, which has received relatively less attention to date, concerns the correlation of technology with transformations in what we believe the world ought to be, i.e. our moral values, beliefs, and norms. Technology and morality have a co-shaping relationship of their own: our moral conceptions (through which we can judge our technological environment) are not static, but rather mediated by technology.<sup>14</sup>

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10. See, e.g., Swierstra & Waelbers, *supra* note 5, at 167.

11. See, e.g., Sarah Perez, *Twitter Officially Expands Its Character Count to 280 Starting Today*, TECHCRUNCH (Nov. 7, 2017), <https://techcrunch.com/2017/11/07/twitter-officially-expands-its-character-count-to-280-starting-today>.

12. See, e.g., Ruth Page, Richard Harper & Maximiliane Frobenius, *From Small Stories to Networked Narrative: The Evolution of Personal Narratives in Facebook Status Updates*, 23 NARRATIVE INQUIRY 192 (2013); Carolin Gerlitz & Anne Helmond, *The Like Economy: Social Buttons and the Data-Intensive Web*, 15 NEW MEDIA & SOC’Y 1348 (2013); Amy Binns, *Twitter City and Facebook Village: Teenage Girls’ Personas and Experiences Influenced by Choice Architecture in Social Networking Sites*, 15 J. MEDIA PRAC. 71 (2014). In February 2016, Facebook launched Reactions, an extension to the “Like” button, which enables users to express some additional emotions, but not to dislike (notably, Reactions do include “Sad” and “Angry,” which users may use as a partial alternative to “dislike”).

13. See *Changing Phone Numbers and/or Phones*, WHATSAPP, <https://faq.whatsapp.com/en/general/28030001/?category=5245246> (last visited Jan. 6, 2018).

14. See, e.g., CARL MITCHAM, THINKING THROUGH TECHNOLOGY 107-08 (1994) (“The rise of modern technology is . . . correlated with certain

The clock, for example, not only transformed our conception of time but also created the value of punctuality as we know it;<sup>15</sup> mobile technology not only enables us to be constantly available but also creates an expectation of availability and connectedness;<sup>16</sup> the concept of workers' rights is correlated with the vast technological transformations of the industrial revolution,<sup>17</sup> and these rights are themselves contested in the age of the Internet;<sup>18</sup> the idea of having rights to certain types of medical care can be directly linked to scientific discoveries and technological developments in medicine;<sup>19</sup> several authors have argued that women's rights and gender equality were co-shaped by developments in contraceptive technologies;<sup>20</sup> and so on.

Similarly, people's place in the digital ecosystem invokes a reevaluation of important aspects of our moral landscape and particularly our perception of certain fundamental rights. Increasing focus in this respect has been put on privacy,<sup>21</sup> but I believe that "freedom of expression" has also changed and evolved in ways that are not yet fully appreciated. Jack Balkin once noted that the digital age would change the meaning of "freedom of speech;" the only

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transformations in the understanding of justice . . . so that the investigation of these transformations itself becomes an aspect of the political philosophy of technology."); Swierstra & Waelbers, *supra* note 5; KATINKA WAELBERS, DOING GOOD WITH TECHNOLOGIES 82-88 (2011); Tsjalling Swierstra & Arie Rip, *Nano-Ethics as NEST-ethics: Patterns of Moral Argumentation About New and Emerging Science and Technology*, 1 NANOETHICS 3 (2007).

15. See generally, e.g., DAVID S. LANDES, *REVOLUTION IN TIME* (2000).

16. See, e.g., Jennie Germann Moltz, 'Watch Us Wander': *Mobile Surveillance and the Surveillance of Mobility*, 38 ENV'T & PLAN. A: ECON. & SPACE 377 (2006); Steven D. Sheetz et al., *Expectation of Connectedness in Cell Phone Use in Crisis*, 7 INT'L J. EMERGENCY MGMT. 124 (2010).

17. See, e.g., MITCHAM, *supra* note 14, at 107.

18. See, e.g., Gary Chaison, *Information Technology: The Threat to Unions*, 23 J. LAB. RES. 249, 255 (2002) (arguing that the Internet "will reduce the relevancy of the traditional workplace-centered appeals of organizing unions," impeding those unions' ability to organize workers).

19. See, e.g., Tsjalling Swierstra, Hester van de Bovenkamp & Margo Trappenburg, *Forging a Fit Between Technology and Morality: The Dutch Debate on Organ Transplants*, 32 TECH. SOC'Y 55 (2010).

20. See, e.g., Claudia Goldin & Lawrence F. Katz, *The Power of the Pill: Oral Contraceptives and Women's Career and Marriage Decisions*, 110 J. POL. ECON. 730 (2002); Martha J. Bailey, *More Power to the Pill: The Impact of Contraceptive Freedom on Women's Life Cycle Labor Supply*, 121 Q.J. ECON. 289 (2006).

21. See generally, e.g., PEW RESEARCH CTR., *THE FUTURE OF PRIVACY* (2014), [http://www.pewresearch.org/wp-content/uploads/sites/9/2014/12/PI\\_FutureofPrivacy\\_1218141.pdf](http://www.pewresearch.org/wp-content/uploads/sites/9/2014/12/PI_FutureofPrivacy_1218141.pdf).

question, he said, was how it would change.<sup>22</sup> Balkin suggested that digital technologies have changed the *purpose* of freedom of speech, from a conception focused primarily on the promotion of collective self-government (a conception suited to the realities of the mass-media model of information production) to a conception focused on the protection of individual liberty.<sup>23</sup> Other scholars have analyzed how ICTs impact our understanding of what “speech” is.<sup>24</sup> Are search-engine results “speech”?<sup>25</sup> Are “Likes” on Facebook “speech”?<sup>26</sup> Are any (or all) algorithm-based outputs “speech”?<sup>27</sup>

This Article will focus on what I believe is a more fundamental question, and yet one that has received much less attention: How does technological change mediate our understanding of “*freedom*” in “freedom of expression”?<sup>28</sup> The importance of this question derives from the fact that the emerging structure of the digital ecosystem is pulling our system of free expression in two conflicting directions—it gives us an unprecedented capacity to speak, while simultaneously diminishing our liberty to do so; it strengthens one

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22. Jack M. Balkin, *Commentaries: Digital Speech and Democratic Culture: A Theory of Freedom of Expression for the Information Society*, 79 N.Y.U. L. REV. 1, 55 (2004).

23. *Id.* at 31-42.

24. Of course, the question of what is considered “speech,” particularly for the purpose of First Amendment protection, is not itself new, and has occupied free speech theorists and jurists “to the point of scholasticism.” Jeremy Waldron, *A Rights-Based Critique of Constitutional Rights*, 13 O.J.L.S. 18, 26 (1993).

25. *See generally, e.g.*, Oren Bracha & Frank Pasquale, *Federal Search Commission? Access, Fairness, and Accountability in the Law of Search*, 93 CORNELL L. REV. 1149 (2008) (arguing that the First Amendment does not encompass search engine results). *But see* Eugene Volokh & Donald M. Falk, *Google: First Amendment Protection for Search Engine Search Results*, 8 J.L. ECON. & POL’Y 883 (2012) (arguing the opposite).

26. *See, e.g.*, *Bland v. Roberts*, 730 F.3d 368 (4th Cir. 2013) (concluding that “Liking” something on Facebook is a form of speech protected under the First Amendment); Clay Calvert, *Fringes of Free Expression: Testing the Meaning of “Speech” Amid Shifting Cultural Mores & Changing Technologies*, 22 S. CAL. INTERDISC. L.J. 545, 571-80 (2013); Alicia D. Sklan, Note, *@Socialmedia: Speech with a Click of a Button? #socialsharingbuttons*, 32 CARDOZO ARTS & ENT. L.J. 377 (2013).

27. *See generally, e.g.*, Stuart Minor Benjamin, *Algorithms and Speech*, 161 U. PA. L. REV. 1445 (2013) (arguing that algorithm-based outputs may be considered “speech”). *But see* Tim Wu, *Machine Speech*, 161 U. PA. L. REV. 1495 (2013).

28. *Cf.* Abner J. Mikva, *Book Review: The Tolerant Society: Freedom of Speech and Extremist Speech in America*, 17 U. BALT. L. REV. 204, 205 (1987) (“We may argue about what is ‘speech,’ but we seldom look at what is ‘freedom’ of speech.”).

aspect of freedom while weakening another. And this, as I shall argue, has important normative implications.

Part II of this Article will address the dramatic impact that ICTs have had on people's ability to express themselves and communicate with others by lowering the access barriers to speech. This is the source of what Yochai Benkler called the "new practical individual freedom" of individuals,<sup>29</sup> the basis for Balkin's observation that "the digital revolution offers unprecedented opportunities for creating a vibrant system of free expression,"<sup>30</sup> and the main reason scholars have found the Internet so special.<sup>31</sup> In the formative years of the Internet, scholars tended to argue that ICTs would provide technological solutions to the twentieth century's long-standing problems of media access, and speech (in)equality more generally.<sup>32</sup> These predictions have been at least partly correct, as one cannot overlook the fact that individuals enjoy a heightened level of expressive capacity as a result of technological change. Moreover, as shall be demonstrated, technological change has not only affected our sense of what we are able to do but also our normative views on what we *ought* to be able to do. Notably, ICTs have blurred the distinction (which was dominant in the speech environment of the twentieth century) between having a right to freedom of expression, in the abstract, and having means for expression, in reality, and they have done so to the point where a

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29. BENKLER, *supra* note 9, at 139.

30. Balkin, *supra* note 22, at 3.

31. *See, e.g.*, MANUEL CASTELLS, *THE INTERNET GALAXY 2* (2001) (arguing that the Internet allows, for the first time, "the communication of many to many, in chosen time, on a global scale"); RICHARD HOLT, *DIALOGUE ON THE INTERNET* 7 (2004) (observing that the Internet offers "possibilities for sharing, connecting, and participating, involving a far greater number of individuals, from a significantly more diverse range of cultures and backgrounds, than any previous form of communication"); ANDREW L. SHAPIRO, *THE CONTROL REVOLUTION* 41 (1999) (quoting Howard Rheingold) ("The Internet puts the masses back in mass media."); Nicholas P. Dickerson, Comment, *What Makes the Internet So Special? And Why, Where, How, and by Whom Should Its Content Be Regulated?*, 46 HOUS. L. REV. 61, 64-67 (2009) (arguing that the Internet is a communication medium of "participatory nature").

32. *See generally, e.g.*, Eugene Volokh, *Cheap Speech and What It Will Do*, 104 YALE L.J. 1805 (1995); Allen S. Hammond, IV, *Regulating Broadband Communication Networks*, 9 YALE J. ON REG. 181, 193 (1992) ("Rights of speech, assembly, access and diversity naturally flow from the use of broadband technology."); Martin H. Redish & Kirk J. Kaludis, *The Right of Expressive Access in First Amendment Theory: Redistributive Values and the Democratic Dilemma*, 93 NW. U. L. REV. 1083, 1101 n.85 (1998); Christopher S. Yoo, *The Rise and Demise of the Technology-Specific Approach to the First Amendment*, 91 GEO. L.J. 245, 344 (2003).

system of free expression, which maintains such a distinction, is no longer normatively tenable. Expressive capacity has become a definitive element of freedom in the digital ecosystem, which should invoke an understanding of freedom of expression as a right incorporating both a capacity and a liberty aspect.

However, the fact that ICTs provide greater expressive *capacity* to individuals does not necessarily mean that they practically enhance individual *freedom*. In his influential book, *The Irony of Free Speech*, which was published just as the Internet was making its first introduction into private and commercial use, Owen Fiss explained how the traditional understanding of freedom of expression, as a shield from interference by the state, ended up fostering a system that benefited a small number of media corporations and other private actors, while silencing the many who did not possess any comparable expressive capacity.<sup>33</sup> As shall be argued in Part III, the digital age has turned the problem described by Fiss on its head, as it presents us with a new irony of free speech, whereby the very system of free expression that provides more expressive *capacity* to individuals than ever before, also systematically diminishes their *liberty* to speak. Accordingly, the popular view of the Internet as the ultimate promoter of freedom of speech is too simplistic. In reality, the Internet, in its current state, trades liberty for capacity, strengthening one aspect of freedom while weakening another.

As shall be described in Sections III.A through III.F, the process of diminishing liberty in the digital ecosystem occurs along six related dimensions: First, interference with users' speech from multiple sources—not only the state, but also, and mainly, private entities that are not understood to be bound by the constraints imposed on the state; second, state-encouraged private interference, through formal and informal means, which supposedly places government regulation beyond the reach of constitutional scrutiny; third, multiple modes of interference—not only classic censorship, but also seduction and manipulation; fourth, new-media concentration in practically all markets for speech-facilitating platforms; fifth, lack of anonymity due to the unprecedented ability for surveillance that digital technologies provide; and sixth, lack of inviolability, i.e. the absence of the notion that nothing can be done to prevent us from speaking. The result of these liberty-diminishing dimensions of our current system of free expression, taken together,

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33. See generally OWEN M. FISS, *THE IRONY OF FREE SPEECH* (1996).

is that while we may be able to speak more than ever before, it is doubtful that we are able to speak freely.

Part IV will conclude.

## II. HEIGHTENED EXPRESSIVE CAPACITY AND ITS MORAL IMPLICATIONS

### A. *Expressive Capacity as Internal to Freedom*

Freedom of expression is an essential liberty, worthy of special protection.<sup>34</sup> It is, as Justice Cardozo famously put it, “the matrix, the indispensable condition, of nearly every other form of freedom.”<sup>35</sup> In the digital ecosystem, freedom of expression has amplified importance; it is the central normative effect of the most significant contribution attributed to the Internet—the lowering of access barriers to speech and communication. Freedom of expression, as Benedek and Kettemann have put it, is “the key human right of the information society,”<sup>36</sup> and is treated, accordingly, as the primary concern in the promotion and protection of human rights on the Internet.<sup>37</sup> This viewpoint is also shared by Internet users across countries and cultures.<sup>38</sup>

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34. See, e.g., JOHN RAWLS, A THEORY OF JUSTICE 53 (1999); RONALD DWORKIN, SOVEREIGN VIRTUE 127 (2000); AMARTYA SEN, THE IDEA OF JUSTICE 63-64 (2009) [hereinafter SEN, THE IDEA]; JAMES GRIFFIN, ON HUMAN RIGHTS 193 (2011); F.A. HAYEK, THE CONSTITUTION OF LIBERTY 326 (1960); MARTHA C. NUSSBAUM, CREATING CAPABILITIES 73 (2011). The right to freedom of expression is enshrined, *inter alia*, in Article 19 of the Universal Declaration of Human Rights; Article 19 of the International Covenant on Civil and Political Rights; U.S. CONST. amend. I; Convention for the Protection of Human Rights and Fundamental Freedoms art. 10, Nov. 4, 1950, 213 U.N.T.S. 221.

35. *Palko v. Connecticut*, 302 U.S. 319, 327 (1937).

36. WOLFGANG BENEDEK & MATTHIAS C. KETTEMANN, FREEDOM OF EXPRESSION AND THE INTERNET 23 (2013).

37. See, e.g., Human Rights Council Res. 20/8, U.N. Doc. A/67/53, at 151-52 (July 5, 2012) [hereinafter UN Resolution on the Promotion of Human Rights on the Internet]. The Freedom of the Net Index published yearly by Freedom House, for example, is, in fact, primarily an index of the level of freedom of expression on the Internet (and other digital media) in different states. See, e.g., FREEDOM HOUSE, FREEDOM ON THE NET 2014 (2015), [https://freedomhouse.org/sites/default/files/FOTN\\_2014\\_Full\\_Report\\_compressedv2\\_0.pdf](https://freedomhouse.org/sites/default/files/FOTN_2014_Full_Report_compressedv2_0.pdf).

38. A survey of 5,400 adult Internet users from thirteen different countries conducted by the Oxford Internet Institute (OII) and INSEAD in 2011 shows that the most basic value underpinning the Internet, according to users' own attitudes, is freedom of expression. See Soumitra Dutta, William H. Dutton & Ginette Law, *The New Internet World: A Global Perspective on Freedom of Expression, Privacy, Trust and Security Online* 9-10 (INSEAD, Working Paper No.

The task of ensuring freedom of expression, in order to protect and promote individual rights in the digital ecosystem, is not merely a matter of applying traditional conceptions to a similar system on a larger scale. It is not, as policymakers have often stated, a process of simply assuring that people have online the same rights they had offline.<sup>39</sup> That is not because the digital world is separate from the physical world, but because technological change may require us to re-examine traditional conceptions and view them in a new, perhaps more sophisticated, light.<sup>40</sup>

The dominant approach in the twentieth-century liberal political theory conceives of freedom as immunity from interference by others,<sup>41</sup> and particularly as immunity from coercive governmental powers.<sup>42</sup> This approach maintains a conceptual distinction between freedom so construed and the means (or capabilities) required for exercising freedom, which are treated as separate concerns of social justice, not as constraints that define freedom itself. One of the most influential expressions of this distinction can be found in Rawlsian theory, which distinguishes between “liberty,” understood as immunity from interference, and what Rawls denominates “the worth of liberty,” i.e. inequalities in the distribution of means to exercise freedom.<sup>43</sup> Traditional twentieth-century free speech theory

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2011/89/TOM, 2011), [https://flora.insead.edu/fichiersti\\_wp/inseadwp2011/2011-89.pdf](https://flora.insead.edu/fichiersti_wp/inseadwp2011/2011-89.pdf).

39. See, e.g., UN Resolution on the Promotion of Human Rights on the Internet, *supra* note 37; JOINT COMMUNICATION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS, CYBERSECURITY STRATEGY OF THE EUROPEAN UNION: AN OPEN, SAFE AND SECURE CYBERSPACE, at 2, JOIN (2013) 1 final (Feb. 7, 2013).

40. Cf. Burt Neuborne, *Speech, Technology, and the Emergence of a Tricameral Media: You Can't Tell the Players without a Scorecard*, 17 HASTINGS COMM. & ENT. L.J. 17, 19 (1994) (“[F]ree speech theory must evolve more sophisticated ways to describe the intersection of speech, law, and amplifying technology.”).

41. See generally, e.g., KATRIN FLIKSCHUH, FREEDOM: CONTEMPORARY LIBERAL PERSPECTIVES (2007) (analyzing the perspectives on freedom of seven prominent liberal thinkers: Isaiah Berlin, Gerald MacCallum, Robert Nozick, Hillel Steiner, Ronald Dworkin, and Joseph Raz).

42. See, e.g., RONALD DWORKIN, TAKING RIGHTS SERIOUSLY 267 (1978) (“[T]he traditional definition” of liberty is “the absence of constraints placed by a government upon what a man might do if he wants to.”).

43. RAWLS, *supra* note 34, at 179. This distinction fits into Rawls’ two principles of justice: freedom as equal liberty is specified the same way under the First Principle while the issue of compensating for the lesser “worth of liberty” is to be addressed, according to Rawls, by the Difference Principle, where it is commensurable with all primary goods, *other than* basic liberties. *Id.* at 53; JOHN

has similarly distinguished freedom of expression, understood as immunity from government interference,<sup>44</sup> from questions regarding the (unequal) distribution of expressive opportunities in society, which have been treated as a separate case of inequality or distributive injustice.<sup>45</sup> On this account, my freedom of expression, as formally specified, is understood to be equal to Rockefeller's,<sup>46</sup> although our respective capacities to exercise that freedom may be extremely unequal.<sup>47</sup>

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RAWLS, JUSTICE AS FAIRNESS: A RESTATEMENT 42-43 (2001) [hereinafter RAWLS, RESTATEMENT]; JOHN RAWLS, POLITICAL LIBERALISM 325-26 (1993) [hereinafter RAWLS, POLITICAL LIBERALISM].

44. See, e.g., Owen M. Fiss, *Free Speech and Social Structure*, 71 IOWA L. REV. 1405, 1414 (1986); DAVID M. RABBAN, FREE SPEECH IN ITS FORGOTTEN YEARS 383 (1997); Gregory P. Magarian, *The Pragmatic Populism of Justice Stevens's Free Speech Jurisprudence*, 74 FORDHAM L. REV. 2201, 2203 (2006) (arguing that the Supreme Court treats freedom of speech mostly as a "negative right that shields individual autonomy against government interference"). See also David Abraham, *Liberty Without Equality: The Property-Rights Connection in a "Negative Citizenship" Regime*, 21 L. & SOC. INQUIRY 1, 4 (1996) ("[T]hroughout American history we have borne a conception of liberty that is *formal, negative*, expressed in *contract*, and dependent on possession of *property*.").

45. See, e.g., Redish & Kaludis, *supra* note 32, at 1085 (arguing that the rationale underlying expressive power distribution is equality and that such distribution undermines liberty); Thomas Scanlon, *A Theory of Freedom of Expression*, 1 PHIL. & PUB. AFF. 204, 223 (1972) ("Access to means of expression . . . is a good which can be fairly or unfairly distributed among the members of a society, and many cases which strike us as violations of freedom of expression are in fact instances of distributive injustice."); C. EDWIN BAKER, HUMAN LIBERTY AND FREEDOM OF SPEECH 49 (1989) (arguing that equality of individual opportunities for communication relies on plausible assumptions but improperly subordinates liberty).

46. See Norman Daniels, *Equal Liberty and Unequal Worth of Liberty*, in READING RAWLS: CRITICAL STUDIES ON RAWLS' *A THEORY OF JUSTICE* 253, 259 (Norman Daniels ed., 1975).

47. Notably, even the harshest critics of the grossly unequal distribution of expressive capacities in the mass-media environment of the twentieth century did not base their critique on an alternative conception of freedom. The most influential free speech theory of the time, democratic theory, identified the concentration of expressive capacity in the hands of a wealthy few as a threat to democracy. However, democratic theory's main concern has been to secure expressive opportunities for more viewpoints in the name of democracy, and not expressive capacity for every person in the name of freedom. Accordingly, democratic theory has actually concentrated on developing justifications for limiting the freedom of the strong (e.g. through state regulation of the mass-media market or expansive interpretations of "state action"), in order to promote deliberative democracy, but not on re-defining or challenging the accepted understanding of individual freedom as non-interference. For an explication of democratic theory of speech, see, for example, ALEXANDER MEIKLEJOHN, FREE SPEECH AND ITS RELATION TO SELF-GOVERNMENT (1948); Jerome A. Barron,

This way of thinking not only conceptually separates one's right to freedom of expression from her actual capacity to express herself, but also treats the two as independent, and potentially conflicting, values.<sup>48</sup> While freedom of expression as immunity from interference is treated as an entitlement of every person *qua* person, the claim for expressive capacity is treated as external to freedom, and rests on the comparative observation that some persons have less (or more) of it than others. In this seemingly inevitable tension between liberty and equality, the primacy of the former over the latter is viewed as essential to human freedom.<sup>49</sup> Put in Rawls' terminology, basic liberties may be regulated "only for the sake of one or more other basic liberties,"<sup>50</sup> which means that "liberty" is given priority over the "worth of liberty."<sup>51</sup> A similar underlying

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*Access to the Press – A New First Amendment Right*, 80 HARV. L. REV. 1641 (1967); CASS R. SUNSTEIN, DEMOCRACY AND THE PROBLEM OF FREE SPEECH (1993); Cass R. Sunstein, *A New Deal for Speech*, 17 HASTINGS COMM. & ENT. L.J. 137 (1994); Cass R. Sunstein, *Free Speech Now*, U. CHI. L. REV. 255 (1992); Fiss, *supra* note 44; Owen M. Fiss, *Why the State?*, 100 HARV. L. REV. 781 (1987); Burt Neuborne, *Toward a Democracy-Centered Reading of the First Amendment*, 93 NW. U. L. REV. 1055 (1999). For discussions focused on the above-mentioned limits on the freedom of the strong, see Gregory P. Magarian, *Regulating Political Parties Under a "Public Rights" First Amendment*, 44 WM. & MARY L. REV. 1939 (2003) and David A. Strauss, *State Action after the Civil Rights Era*, 10 CONST. COMMENT. 409 (1993).

48. Cf. Dorothy E. Roberts, *The Priority Paradigm: Private Choices and the Limits of Equality*, 57 U. PITT. L. REV. 363, 370 (1996) (arguing, in the context of racial equality, that the traditional conception of liberty requires "set[ting] aside certain claims to substantive equality," and "separates social justice from the meaning and realization of individual liberty").

49. As noted above, the view of liberty and equality as antagonistic concepts is typical of traditional liberal thought. See, e.g., DAVID HUME, AN ENQUIRY CONCERNING THE PRINCIPLES OF MORALS (1748); HAYEK, *supra* note 34, at 87. But see, e.g., Richard Norman, *Does Equality Destroy Liberty?*, in CONTEMPORARY POLITICAL PHILOSOPHY 83 (K. Graham ed., 1982) (arguing that no genuine liberty can exist in the absence of equality).

50. RAWLS, RESTATEMENT, *supra* note 43, at 111.

51. The First Principle is given precedence over the Difference Principle in what is known as the priority of liberty rule. RAWLS, *supra* note 34, at 53, 220. This structure, according to Rawls, allows a reconciliation of liberty and equality, which defines the end of social justice. *Id.* at 179. Notably, Rawls states that the priority of liberty is not required under all conditions, but only under "reasonably favorable conditions." This concession is intended, however, to allow societies to secure basic needs of subsistence before establishing the priority of basic liberties. On Rawls' account, reasonably favorable conditions do obtain in practically all liberal democracies. See, e.g., RAWLS, POLITICAL LIBERALISM, *supra* note 43, at 297. In his later work, Rawls partly acknowledged this as a problem and modified his first principle by including in it a "proviso that the equal political liberties, and *only* these liberties, are to be guaranteed their fair value." RAWLS, RESTATEMENT,

principle guides established constitutional analysis, where freedom as non-interference enjoys at least a presumption of priority over concerns of expressive capacity distribution, which are perceived as external to the value of freedom (and hence, external to the right to freedom of expression).<sup>52</sup>

From the perspectives of traditional liberal political theory and classic free speech theory, then, the Internet works as a kind of technological reconciler of liberty and equality in the area of expression. It reduces the tension between individual liberty and social justice by providing access to means of expression for all. In reality, however, the Internet has done more than that; it has blurred the distinction between “liberty” and the “worth of liberty” to the point where a system of free expression that maintains such a distinction is no longer normatively tenable. In order to understand this transformation, it is helpful to think about freedom and equality not as competing ideals that require balancing or reconciliation,<sup>53</sup> but rather as something we wish to distribute (i.e. freedom) and the rule which specifies how that something should be distributed (i.e. equality).<sup>54</sup> Practically every modern theory of justice seeks to apply

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*supra* note 43, at 149. “Practicable institutional ways” of realizing the fair value of equal political liberties may include, according to Rawls, media regulation. *Id.* However, by “political liberties,” Rawls refers only to the right to vote and to hold public office and not to freedom of expression in general. *See* RAWLS, *supra* note 34, at 53. Accordingly, the regulation of liberty in this context is not designed to directly ensure a fair value of expressive capacity, but a fair value of political participation (an approach similar to that of democratic theory of speech, albeit with greater emphasis on individual entitlements). In fact, Rawls sees his suggested “adjustments” as potential infringements upon freedom of expression, although acceptable ones as part of the need to reconcile equally significant basic liberties in situations of conflict. *See* RAWLS, *RESTATEMENT*, *supra* note 43, at 149-50.

52. *See, e.g.*, *Buckley v. Valeo*, 424 U.S. 1, 48-49 (1976) (“[T]he concept that government may restrict the speech of some elements of our society in order to enhance the relative voice of others is wholly foreign to the First Amendment.”); *Miami Herald Publ’g Co. v. Tornillo*, 418 U.S. 241, 252 (1974); Moran Yemini, *Mandated Network Neutrality and the First Amendment: Lessons from Turner and a New Approach*, 13 VA. J.L. & TECH. ¶ 48 (2008).

53. Ronald Dworkin, for example, has argued that, in an ideal world, distributional equality does not undermine liberty, but actually protects it. *See* DWORKIN, *supra* note 34, at 120-83. However, he argues that, in the real world of American politics, the conflict between equality and liberty is unavoidable, and it is a conflict in which liberty must lose. *Id.* at 180.

54. *See, e.g.*, AMARTYA SEN, *INEQUALITY REEXAMINED* 12-30 (1992) [hereinafter SEN, *INEQUALITY*]; SEN, *THE IDEA*, *supra* note 34, at 293-95; Jeremy Waldron, *Theoretical Foundations of Liberalism*, 37 PHIL. Q. 127, 129 n.6 (1987); Elizabeth S. Anderson, *What is the Point of Equality?*, 109 ETHICS 287, 315 (1999); Elizabeth Anderson, *Justifying the Capabilities Approach to Justice*, in *MEASURING JUSTICE* 81 (Harry Brighouse & Ingrid Robeyns eds., 2010) (noting

an egalitarian formula in some space; what changes from theory to theory is the space in which equality is considered to be a cause for concern.<sup>55</sup> Judgments of justice in the Rawlsian approach, for example, apply to the space of basic liberties and the space of primary goods, with each space subjected to different patterns of distribution, but with egalitarian considerations playing a role in both.<sup>56</sup> A commitment to *equal freedom* is, therefore, “not a *compromise* between freedom and equality,” but a formula, which “pin[s] down the form of our commitment to freedom,” which form still requires specification.<sup>57</sup> In the digital ecosystem, what we count as being within the space of freedom is broader than before, and the relegation of expressive capacity to the space of economic and social goods has become harder to justify.<sup>58</sup>

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that theories of distributive justice must specify two things: a metric that characterizes the type of good subject to demands of distributive justice and a rule that specifies how that good should be distributed) [hereinafter Anderson, *Justifying*].

55. See, e.g., SEN, THE IDEA, *supra* note 34, at 291-317 (observing that utilitarians seek equality in the treatment of human beings by attaching equal importance to the utilities of every person—Nozick seeks equality in the space of liberties or rights, Dworkin in the space of resources, and so on). See also SEN, INEQUALITY, *supra* note 54, at 74.

56. Rawls' First Principle is a “distributive pattern rule,” which fixes “distributions of actual goods independently of what anyone does,” while his Difference Principle is a “constrained procedural rule,” which only fixes “opportunities for access to goods,” with actual distributions being determined by individual decisions to take advantage of those opportunities. See Anderson, *Justifying*, *supra* note 54, at 82.

57. Waldron, *supra* note 54, at 129 n.6. For clarity, my analysis is not meant to imply that freedom and concerns of equality can never be in conflict, but rather that they are not always alternatives (as they are often portrayed). Perhaps something that comes closest to a genuine conflict between freedom and equality in the area of expression can be found in the long and ongoing debate over whether certain types of expressions, such as pornography and hate speech, deserve First Amendment protection. See, e.g., CATHARINE MACKINNON, ONLY WORDS 71 (1993) (“[T]he law of equality and the law of freedom of speech are on a collision course in this country.”); Richard Delgado, *Campus Antiracism Rules: Constitutional Narratives in Collision*, 85 NW. U. L. REV. 343 (1991). However, even this controversy is rarely presented in a way that requires a direct and explicit choice between liberty and equality; instead, it focuses on the proper definition of “speech.”

58. It is worth noting that treating expressive capacity as an aspect of freedom does not necessarily imply that it should be subject to the same rules of distribution which apply to the liberty (non-interference) aspect of freedom. There are multiple dimensions, including different dimensions of freedom, in which equality matters and more than one morally permissible way to take egalitarian concerns into consideration.

Of course, the idea that freedom can be defined in terms both of what an individual is not restricted from doing by other people and of what the individual can actually do is not new. These aspects have been most often described, respectively, as “negative” and “positive” accounts of freedom,<sup>59</sup> sometimes in other roughly equivalent terms.<sup>60</sup> Several commentators have also specifically criticized the Rawlsian distinction between “liberty” and the “worth of liberty.”<sup>61</sup> However, technological changes have increased the

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59. The *locus classicus* of the distinction between “negative” and “positive” freedom is Isaiah Berlin’s 1958 lecture, *Two Concepts of Liberty*, in *FOUR ESSAYS ON LIBERTY* 118 (1969). For an earlier depiction resembling this distinction, see, for example, BENJAMIN CONSTANT, *The Liberty of the Ancients Compared with the Liberty of the Moderns*, in *THE POLITICAL WRITINGS OF BENJAMIN CONSTANT* 1 (1988). Berlin wrote against the background of World War II and the Cold War, which led him to identify positive freedom with the idea of conforming to a supreme, often communal value, and therefore with fascism and communism, and negative freedom, on the other hand, with pluralism. However, as several commentators have noted, this linkage between positive freedom and ideological monism is possible but not necessary. See, e.g., Adrian Blau, *Against Positive and Negative Freedom*, 32 *POL. THEORY* 547, 548 (2004) (arguing that “the debate over positive and negative freedom has created more heat than light”); Steven J. Heyman, *Positive and Negative Liberty*, 68 *CHI.-KENT L. REV.* 81 (1992); Simon Barnbeck, *Freedom and Capacity: Implications of Sen’s Capability Approach for Berlin’s Negative Freedom*, 1 *RERUM CAUSAE* 10, 11-12 (2006).

60. See, e.g., C. Edwin Baker, *Property and Its Relation to Constitutionally Protected Liberty*, 134 *U. PA. L. REV.* 741, 775-82 (1986) (distinguishing “formal” freedom from “substantive” freedom); Stephen Breyer, Assoc. Justice, Supreme Court of the United States, *The Tanner Lectures on Human Values at Harvard University, Active Liberty: Interpreting Our Democratic Constitution* 3-4 (Nov. 17-19, 2004) (distinguishing between “modern liberty” and “active liberty”). See also SEN, *THE IDEA*, *supra* note 34, at 228; Amartya Sen, *Elements of a Theory of Human Rights*, 32 *PHIL. & PUB. AFF.* 315, 330-38 (2004); Amartya Sen, *Human Rights and Capabilities*, 6 *J. HUM. DEV.* 151 (2005) (all distinguishing between the “process aspect” and the “opportunity aspect” of freedom).

61. See, e.g., Daniels, *supra* note 46, at 259 (showing that refusing to accept socioeconomic factors as constraints on liberty is arbitrary and that the parties in the Rawlsian original position would choose a principle of equal (or approximately equal) worth of liberty for reasons precisely analogous to those used in choosing a principle of equal liberty); R. G. PEPPER, *MARXISM, MORALITY, AND SOCIAL JUSTICE* 404 (1990) (arguing that in order to answer certain objections, Rawls’ theory of justice must be modified, among other ways, to feature “at least approximate equality in the *worth of liberty* as well as strict equality of liberty per se”); THOMAS W. POGGE, *REALIZING RAWLS* 122-34 (1989) (arguing that Rawls’ first principle of justice should be modified so as to include a reference to the means to the equal worth of liberty, which are ordinarily relegated to the difference principle); AMARTYA SEN, *DEVELOPMENT AS FREEDOM* 64-67 (1999) [hereinafter SEN, *DEVELOPMENT*] (heralding Rawls for separating out the importance of liberty and establishing the principle that it deserves special treatment, but arguing that giving liberty absolute preeminence over other

normative appeal of this type of approach, at least as it relates to the area of expression and communication. The main reason for this is that, notwithstanding the fact that liberty carries value distinguishable from the capacity to act on it,<sup>62</sup> ICTs shine a light on the notion that an adequate understanding of freedom cannot be detached from the outcomes that emerge from it—that is, from what really happens to people.<sup>63</sup>

This observation seems to be in line with Internet users' own reported attitudes toward the value of freedom of expression. Several global surveys conducted by the BBC, the Oxford Internet Institute, INSEAD, and the World Economic Forum,<sup>64</sup> have found that Internet users see freedom of expression both in terms of what they can actually do and in terms of how others can interfere with what they do. This is, arguably, why users are able to consistently hold two seemingly contradictory views—that the Internet has brought them greater freedom *and* that it is not a safe place for them to voice their opinions.<sup>65</sup>

This idea is echoed in an illuminating article published by Benkler in 2011, in which he offers a methodological framework for describing human behavior in information systems in ways that can be observed and analyzed empirically.<sup>66</sup> In order to describe the flow of power and freedom in the evolution of information production systems, Benkler embraces a definition of “freedom” that

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concerns is too extreme, since immunity from interference by others is not the only concern in a person's freedom).

62. See, e.g., Avishai Margalit, *Decent Equality and Freedom: A Postscript*, 64 SOC. RES. 147 (1997). Margalit posits that freedom from interference is more fundamental than freedom to achieve a good life, since the former means that we do not have to bend our will to the illegitimate will of someone else, and this is freedom from humiliation. According to Margalit, freedom from humiliation is required for a decent society, though it may not be enough for achieving a just society. *Id.* at 149.

63. Cf. SEN, THE IDEA, *supra* note 34, at 68, 316; SEN, DEVELOPMENT, *supra* note 61, at 66.

64. See BBC WORLD SERVICE, FOUR IN FIVE REGARD INTERNET ACCESS AS A FUNDAMENTAL RIGHT: GLOBAL POLL (2010), [http://news.bbc.co.uk/2/shared/bsp/hi/pdfs/08\\_03\\_10\\_BBC\\_internet\\_poll.pdf](http://news.bbc.co.uk/2/shared/bsp/hi/pdfs/08_03_10_BBC_internet_poll.pdf); BBC WORLD SERVICE, ONE-IN-TWO SAY INTERNET UNSAFE PLACE FOR EXPRESSING VIEWS: GLOBAL POLL (2014), <http://downloads.bbc.co.uk/mediacentre/bbc-freedom-poll-2014.pdf>; Dutta, Dutton & Law, *supra* note 38; WILLIAM H. DUTTON ET AL., WORLD ECONOMIC FORUM, THE INTERNET TRUST BUBBLE (2013), [http://www.sbs.ox.ac.uk/cybersecurity-capacity/system/files/WEF\\_InternetTrustBubble\\_Report2\\_2014\\_0.pdf](http://www.sbs.ox.ac.uk/cybersecurity-capacity/system/files/WEF_InternetTrustBubble_Report2_2014_0.pdf).

65. DUTTON ET AL., *supra* note 64, at 10.

66. Yochai Benkler, *Networks of Power, Degrees of Freedom*, 5 INT'L J. COMM. 721, 723 (2011)

follows expansive conceptions of freedom found, for example, in the so-called Capabilities Approach and related approaches.<sup>67</sup> “Freedom” in a network, according to Benkler, is “the extent to which individuals or other entities in a given network can influence their own behaviors, configurations, or outcomes (exercise freedom) and be immune to the efforts of others in the network to constrain them (be subject to their power).”<sup>68</sup> Although Benkler’s analysis is descriptive in nature (i.e. designed to measure the actual level of freedom in a network, as opposed to establishing a moral claim as to how freedom should be distributed), his choice of definition is telling. It suggests that the traditional conception of freedom as immunity from interference is not suitable for describing how freedom is actually experienced in the digital ecosystem.

### B. *Can Implies Ought*

One of the foundations of modern morality is the dictum “Ought implies Can” – the idea that inability to do something implies that one does not have an obligation to do it, or in terms of political theory, the idea that a system of rules must not impose duties to do what *cannot* be done. Many philosophers have seen this dictum (often attributed to Kant) as a necessary bridge between norm and fact.<sup>69</sup> In some circumstances, however, the reverse – “Can implies Ought” – may also be true. The idea that being in a position or having the capability to do something entails a duty to act (or liability for not acting) underlies various economic, moral, and legal rules.

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67. See generally, e.g., Daniels, *supra* note 46, at 256-57; Amartya Sen, *Markets and Freedoms: Achievements and Limitations of the Market Mechanism in Promoting Individual Freedoms*, 45 OXFORD ECON. PAPERS 519 (1993) (arguing that freedom has at least two valuable aspects: the “opportunity aspect” and the “process aspect”); SEN, THE IDEA, *supra* note 34, at 228, 371; Leslie Green, *What is Freedom For?*, Oxford Legal Studies Research Paper No. 77/2012 (Dec. 15, 2012), [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2193674](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2193674).

68. Benkler, *supra* note 66, at 726. Benkler relies on these definitions to describe the flow of power and freedom in the evolution of information production systems during a forty-year period from 1970 to 2010. Using fan video production as a test case, he finds that the Internet has been an enabler of greater freedom. *Id.* at 738-50. As shall be explained below, this article takes a much more ambivalent view about this proposition.

69. See, e.g., RAWLS, *supra* note 34, at 208; William K. Frankena, *Obligation and Ability*, in PHILOSOPHICAL ANALYSIS 148, 157 (Max Black ed., 1950); H.L.A. Hart, *Punishment and the Elimination of Responsibility*, in PUNISHMENT AND RESPONSIBILITY 158, 177 (1968). For a thorough discussion of different interpretations of this dictum, see, for example, Robert Stern, *Does ‘Ought’ Imply ‘Can’? And Did Kant Think It Does?*, 16 UTILITAS 42 (2004).

Good Samaritan laws, criteria for risk distribution in tort law,<sup>70</sup> the principle of “common but differentiated responsibilities” in international environmental law,<sup>71</sup> and the principle of Corporate Social Responsibility (CSR) in business ethics<sup>72</sup> are a few examples in which the precept “Can implies Ought” plays a role, either explicitly or implicitly.

The notion of correlating obligations and entitlements with capabilities is particularly relevant in the context of technological change, which alters (or has the potential to alter) our capability set.<sup>73</sup> Morality is entwined with technology in the sense that, when technology enables us to do certain things or achieve certain goals, morality may require us to do those things or strive toward such goals.<sup>74</sup> Gabriella Blum, for example, has shown how technological developments (among other things) may put into question the long-established international humanitarian law principle of the equal application of the law.<sup>75</sup> As Blum demonstrates, “the greater intelligence and precision capabilities a military possesses, the

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70. See generally, e.g., GUIDO CALABRESI, *THE COSTS OF ACCIDENTS* 135-73 (1970).

71. See generally, e.g., CENTRE FOR INTERNATIONAL SUSTAINABLE DEVELOPMENT LAW (CISDL), *THE PRINCIPLE OF COMMON BUT DIFFERENTIATED RESPONSIBILITIES: ORIGINS AND SCOPE* (2002), [http://cisdl.org/public/docs/news/brief\\_common.pdf](http://cisdl.org/public/docs/news/brief_common.pdf).

72. See generally, e.g., Stepan Wood, *The Case for Leverage-Based Corporate Human Rights Responsibility*, 22 *BUS. ETHICS Q.* 63 (2012).

73. The term “capability set” is borrowed from Amartya Sen. In Sen’s capabilities approach, the term is used to describe the set of real opportunities and freedoms people have to perform any of the activities associated with well-being. In selecting one or more capabilities from the set people have, they exercise their choice to enjoy different conceptions of well-being. See, e.g., Amartya Sen, *Capability and Well-Being*, in *THE QUALITY OF LIFE* 30 (Martha C. Nussbaum & Amartya Sen eds., 1993).

74. See, e.g., Swierstra, van de Bovenkamp & Trappenburg, *supra* note 19, at 56; Swierstra & Waelbers, *supra* note 5, at 165; Anton Vedder, *Responsibilities for Information on the Internet*, in *THE HANDBOOK OF INFORMATION AND COMPUTER ETHICS* 339, 345 (Kenner Einar Himma & Herman T. Tavani eds., 2008). This view should not be confused with the idea that whatever is technologically feasible is also normatively desirable. See, e.g., Hasan Ozbekhan, *The Triumph of Technology: “Can Implies Ought,”* in *PLANNING FOR DIVERSITY AND CHOICE* 210 (Stanford Anderson ed., 1968). For example, as convincingly argued by Allen Buchanan, the principle of equal opportunity may justify public support for genetic intervention in order to prevent genetically based deprivations (e.g. blindness), but may at the same time justify placing constraints on the uses of genetic enhancement technology. See Allen Buchanan, *Equal Opportunity and Genetic Intervention*, 12 *SOC. PHIL. & POL’Y* 105, 132-34 (1995).

75. See Gabriella Blum, *On a Differential Law of War*, 52 *HARV. INT’L L.J.* 164, 194 (2011).

greater the [moral] expectation that it will use them to avoid civilian harm.”<sup>76</sup> Such expectations may, in turn, impose substantially higher degrees of responsibility on technologically advanced countries and subject such countries to a stricter test of proportionality than that imposed on less-advanced countries (or non-state actors).<sup>77</sup> In this example, technological feasibility not only encourages the active pursuit of pre-existing values (e.g. minimizing civilian harm), but may also influence our very understanding of norms themselves (e.g. “equality” in warfare; “proportionality”).

Similarly, a technology that enables a wide distribution of expressive opportunities, such as the Internet, creates moral expectations that it will be utilized toward that end, which may, in turn, impose moral obligations on whomever is in a position to do something effective in this respect. The basis for such moral expectations lies, at least partly, in the duty of societies to remove injustices and lift restrictions on human freedoms, as far as circumstances permit.<sup>78</sup> Technological developments can change the circumstances, raising a societal duty to take steps toward the removal of restrictions that can no longer be justified. The initial way to fulfill this duty is through laws and policies aimed at providing access to enabling technology—in our case, the Internet (or ICTs more generally).<sup>79</sup> I shall not elaborate on the issue of physical access to the Internet, since it is not the focus of this Article. For our purposes, it suffices to note that the precept “Can implies Ought” indeed resonates in moral and legal discourse over the just distribution of access to ICTs and the question of whether such access should be considered a human or civil right.<sup>80</sup>

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76. *Id.*

77. *Id.*

78. *See* RAWLS, *supra* note 34, at 216-18.

79. The extent and specific contents of the obligation to make technology available may depend on different variables, such as the state’s own economic capacity, and does not necessarily imply that governments must provide Internet access free to all citizens. *See, e.g.*, Toks Oyedemi, *Internet Access as Citizen’s Right? Citizenship in the Digital Age*, 19 *CITIZENSHIP STUD.* 450 (2015). Regulatory oversight of the telecommunications market, state investments in Internet infrastructure, subsidies to poor households, provision of free access in public spaces and so on, are all among the potential actions, which can be taken in order to actualize the moral obligation to provide (and corresponding entitlement to receive) access to enabling technology.

80. A report submitted to the United Nations’ General Assembly in 2011 by the U.N. Special Rapporteur on Freedom of Expression, Frank La Rue, holds that Internet access should be recognized as a human right. *See* Human Rights Council, *Report of the Special Rapporteur on the Promotion and Protection of the Right to Freedom of Opinion and Expression, Frank La Rue*, UN Doc. No.

However, the moral obligation which is packed into “Can implies Ought” extends beyond the promotion of technological diffusion *per se*, as it also requires action to ensure that technology fulfills the potential for which its diffusion is considered morally desirable. Access to the Internet for each and every individual deserves to be treated as a moral entitlement not because access to technology is a good in itself, but because of our assumptions about the Internet’s potential to expand human capabilities in areas of life that are central to the development and regulation of the self and of one’s relation to others.<sup>81</sup> These assumptions rest on a view of Internet technology as a fundamental departure from the mass media model of information production, but these assumptions can be extremely fragile. Recent empirical studies of Internet traffic show, for example, that the developing model of content distribution over the Internet is increasingly organized around serving video from a small number of providers to a large number of consumers (primarily due to the development of content distribution networks

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A/HRC/17/27 (May 16, 2011), [http://www2.ohchr.org/english/bodies/hrcouncil/docs/17session/A.HRC.17.27\\_en.pdf](http://www2.ohchr.org/english/bodies/hrcouncil/docs/17session/A.HRC.17.27_en.pdf). Prior to this Report, several states (e.g. Estonia, Finland, France) have given institutional recognition to the idea of a “right” to Internet access. See, e.g., Colin Woodard, *Estonia, where being wired is a human right*, CHRISTIAN SCI. MONITOR (July 1, 2003), <http://www.csmonitor.com/2003/0701/p07s01-woeu.html>; Don Reisinger, *Finland Makes 1 Mb Broadband Access a Legal Right*, CNET (Oct. 14, 2009, 11:29 AM), [http://news.cnet.com/8301-17939\\_109-10374831-2.html](http://news.cnet.com/8301-17939_109-10374831-2.html); Conseil Constitutionnel [Constitutional Court] Decision No. 2009-580DC, June 10, 2009, J.O. 9675 (Fr.), translated in *Act Furthering the Diffusion and Protection of Creation on the Internet*, Décision no 2009-580, 4 (June 10, 2009), [http://www.conseil-constitutionnel.fr/conseil-constitutionnel/root/bank\\_mm/anglais/2009\\_580dc.pdf](http://www.conseil-constitutionnel.fr/conseil-constitutionnel/root/bank_mm/anglais/2009_580dc.pdf). See also, e.g., Robin Mansell, *From Digital Divides to Digital Entitlements in Knowledge Societies*, 50 CURRENT SOC. 407 (2002); Michael L. Best, *Can the Internet be a Human Right?*, 4 HUM. RTS. & HUM. WELFARE 23 (2004); Nicola Lucchi, *Access to Network Services and Protection of Constitutional Rights: Recognizing the Essential Role of Internet Access for the Freedom of Expression*, 19 CARDOZO J. INT’L & COMP. L. 645 (2011); Jonathon W. Penney, *Internet Access Rights: A Brief History and Intellectual Origins*, 38 WM. MITCHELL L. REV. 10 (2011); Stephen B. Wicker & Stephanie M. Santoso, *Viewpoint: Internet Access is a Human Right – Connecting Internet Access with Freedom of Expression and Creativity*, 56 COMM. ACM 43 (2013).

81. This idea is inspired by Seana Shiffrin’s work on a thinker-based approach to freedom of speech. See, e.g., Seana Valentine Shiffrin, *A Thinker-Based Approach to Freedom of Speech*, 27 CONST. COMMENT. 283 (2011). In Rawlsian terms, access to ICTs, being a facilitator of opportunities for expression and communication, could be considered a primary good, i.e. something that everyone is presumed to want, and which “persons need in their status as free and equal citizens, and as normal and fully cooperating members of society over a complete life.” RAWLS, *supra* note 34, at xiii.

(CDNs), like Akamai).<sup>82</sup> As one commentator put it: “the Internet is now television, or it will be soon.”<sup>83</sup> When speaking of “Internet access,” policymakers should, therefore, be equally concerned with both of the words in this phrase. If the Internet becomes just another form of multi-channel television, then not much will be achieved by ensuring that everyone has access to it.<sup>84</sup>

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82. Video streaming via Netflix accounts for nearly 35% of peak downstream traffic in the United States, while real-time entertainment accounts for more than 67% of all consumer Internet traffic over fixed lines and nearly 40% of all mobile traffic. *See, e.g.*, SANDVINE, GLOBAL INTERNET PHENOMENA REPORT 2H 2014 5-7 (2015), <https://www.sandvine.com/downloads/general/global-internet-phenomena/2014/2h-2014-global-internet-phenomena-report.pdf>.

83. Christian Sandvig, *The Internet as the Anti-Television: Distribution Infrastructure as Culture and Power*, in SIGNAL TRAFFIC: CRITICAL STUDIES OF MEDIA INFRASTRUCTURES 225, 237 (Lisa Parks & Nicole Starosielski eds., 2015). It is estimated that, globally, “IP video traffic will be 82 percent of all IP traffic (both business and consumer) by 2022, up from 75 percent in 2017.” *See* CISCO, CISCO VISUAL NETWORKING INDEX: FORECAST AND TRENDS, 2017-2022 2 (2018), <https://www.cisco.com/c/en/us/solutions/collateral/service-provider/visual-networking-index-vni/white-paper-c11-741490.html> (last updated Nov. 26, 2018).

84. This is a crucial point on which classic liberal political theory provides little normative guidance. The basic reason for this is that liberal political theory rarely deals with technology at all. Even when political theory does take technology into consideration, it treats it as a “black box,” i.e. as a constant given. Accordingly, political theory may treat technology as a facilitator of social change, but not as a social creation in itself, which should be subject to the principles applied to other spheres of life. Political philosophy tends to distinguish between the social and political spheres, on the one hand, and the technological sphere, on the other hand, treating the former as areas to which the principles of a political theory should be applied, and the latter merely as a neutral background against which individuals and groups pursue their personal, political, and social goals. Consequently, political philosophy may, perhaps, identify problems of resource distribution, such as inequalities in Internet access and digital literacy, as cases of injustice, but “the Internet” itself—its nature and architecture—would not generally be regarded by liberal political theory as a subject of justice. A related problem is the fact that the dominant theories of the twentieth century focus on resource distribution. For resource egalitarianism (Rawlsian, Dworkinian or other), the embodiment of personal advantage is the holding of resources, and the basis of political evaluation is the distribution of resources. *See, e.g.*, Amartya Sen, Drummond Professor of Political Economy at Oxford University, *Equality of What?*, Address At Stanford University (May 22, 1979), in THE TANNER LECTURES ON HUMAN VALUES, at 195, 216-18. In other words, resourcism is interested in what people have and not with what they can actually do with what they have – an approach which is too simplistic for evaluating justice in the context of technological change. *See generally, e.g.*, Anna Lauren Hoffmann, Google Books as Infrastructure of In/Justice: Towards a Sociotechnical Account of Rawlsian Justice, Information, and Technology (2014) (unpublished doctoral thesis, The University of Wisconsin-Milwaukee), <http://dc.uwm.edu/cgi/viewcontent.cgi?article=1535&context=etd> (last visited Jan. 6, 2018). While the

The focus here, from an ethical standpoint, is not on holding a technological resource as such, but on the ability of the holder to convert the resource into actual achievements (e.g. speaking, communicating, retrieving information, and so on). Theoretical basis for this approach can be found, for example, in Amartya Sen's Capabilities Approach, mentioned above, which grew out of a critique of the Rawlsian focus on the holding of resources as such. Sen argued that attention should be shifted, instead, to the *relationship* between persons and resources, that is, to people's actual ability to convert resources into either achievements or the freedom to achieve.<sup>85</sup> Notably, Sen's critique dealt solely with the side of persons in that relationship, emphasizing people's differing physical, social, and environmental "conversion factors."<sup>86</sup> But the logic of this approach can also be applied to an evaluation of technology itself, since the ability of people to convert resources into achievements and freedoms depends on the nature of the converted resource at least as much as it depends on the converting person. If we accept that technology is not a fixed, predetermined thing, then the moral focus should shift from the mere question of whether people have Internet to the question of what kind of Internet people have and what they can actually do with the Internet they have. This insight calls for a more complex conception of freedom than the traditional freedom-as-immunity conception.

*C. A Technologically-Induced Endowment Effect*

From an ethical perspective, the case for a speech-enabling Internet is particularly strong precisely because we have seen how its potential can be realized. As discussed above, technological feasibility may itself carry ethical implications, based on a

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relative possession of, say, income and wealth may be a good approximation for evaluating justice in some areas of life, this metric for measuring justice is not equally suitable for an evaluation of our technological environment. This point cannot be fully elaborated within the scope of this article. For a more thorough discussion, see Moran Yemini, *Free Speech for All: A Justice-Infused Theory of Speech for the Digital Ecosystem* 61-77 (2017) (unpublished doctoral thesis, the University of Haifa), [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3211807](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3211807).

85. *Id.* at 217-19. *See also, e.g.*, SEN, *THE IDEA*, *supra* note 34, at 33-37.

86. The authoritative example used by Sen concerns a comparison between a disabled and a non-disabled person. Even if both persons have the same ends, an interpersonal comparison based on their holdings of resources does not necessarily reflect their respective real ability to pursue their ends. *See, e.g.*, Amartya Sen, *Development as Capability Expansion*, 19 *J. DEV. PLAN.* 41, 47-48 (1989). *See also* Amartya Sen, *Justice: Means versus Freedoms*, 19 *PHIL. & PUB. AFF.* 111 (1990).

technology's perceived potential. Moreover, as shall be discussed in this section, the actual fulfillment of a technology's potential may provide an additional, separate basis for moral entitlements. Put simply, taking away something requires a stronger justification than is needed to withhold it in the first place, and this is true also with regard to the heightened expressive capacity brought about by the Internet.

The much studied "endowment effect" stands for the principle that people tend to place greater value on things when they possess them than when they do not.<sup>87</sup> The endowment effect has been demonstrated in a variety of contexts and is strongest with regard to intangible assets, which have no close market substitutes.<sup>88</sup> Though initially referring to a psychological phenomenon, the endowment effect invokes ethical consequences as well. For example, the longer one possesses an object or an entitlement, the more one will expect to continue possessing that entitlement.<sup>89</sup> Oliver Wendell Holmes perceived this idea as early as 1897, arguing that "a thing which you have enjoyed and used as your own for a long time, whether property or an opinion, takes root in your being and cannot be torn away without you resenting the act and trying to defend yourself, however you came by it."<sup>90</sup> When a status or a practice persists for some time, as Scott Gordon argues, people are led to expect that it will continue and that they have "acquired a *right* to its continuance."<sup>91</sup>

Moreover, regardless of the element of time, the endowment effect suggests that individuals are burdened more by having an entitlement taken away from them than they are by not being given

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87. See Richard Thaler, *Toward a Positive Theory of Consumer Choice*, 1 J. ECON. BEHAV. & ORG. 39, 44 (1980) (coining "endowment effect" as a term for the "underweighting of opportunity costs" relative to "out-of-pocket" costs, which is logically equivalent to the relative overweighting of out-of-pocket costs, and the corresponding overvaluing of what is possessed relative to what is not possessed).

88. For a detailed review of empirical research substantiating the existence of the endowment effect in various contexts, see, for example, Russel Korobkin, *The Endowment Effect and Legal Analysis*, 97 NW. U. L. REV. 1227 (2003).

89. See, e.g., Bailey H. Kuklin, *The Justification for Protecting Reasonable Expectations*, 29 HOFSTRA L. REV. 863, 888 (2001).

90. Oliver W. Holmes, *The Path of the Law*, 10 HARV. L. REV. 457, 477 (1897) (emphasis added).

91. SCOTT GORDON, WELFARE, JUSTICE, AND FREEDOM 92 (1980). See also, e.g., Robert C. Ellickson, *Bringing Culture and Human Frailty to Rational Actors: A Critique of Classical Law and Economics*, 65 CHI.-KENT L. REV. 23, 39 (1989) (arguing that the possession of an entitlement creates expectations, which lead people to see that entitlement as a vested right).

that entitlement in the first place.<sup>92</sup> A legal expression of this principle may be found in the idea that the taking away of rights already granted must satisfy a more demanding level of constitutional scrutiny than not providing the same right. This was one of the main arguments on which U.S. federal courts relied in their decision to overturn the California ballot initiative Proposition 8, which had banned same-sex marriage. Referring to the fact that Proposition 8, in fact, took away from same-sex couples a right—the right to marry—which they had already possessed, the U.S. Court of Appeals for the Ninth Circuit stated, *inter alia*, that “[w]ithdrawing from a disfavored group the right to obtain a designation with significant societal consequences is different from declining to extend that designation in the first place, regardless of whether the right was withdrawn after a week, a year, or a decade.”<sup>93</sup>

Craig Konnoth has persuasively linked the endowment effect, and the constitutional principle of heightened scrutiny for rights reversal, with Margaret Jane Radin’s philosophical approach toward the relationship between property and personhood.<sup>94</sup> Radin has argued that part of our personhood is constructed through the objects we possess, which are (to varying degrees) entangled with our sense of identity and social role, as well as with our expectations and plans for our own continuity.<sup>95</sup> Building on Radin’s notion of property as constitutive of personhood and personal autonomy, Konnoth has argued that the endowment effect, specifically in the

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92. See, e.g., Craig J. Konnoth, *Revoking Rights*, 66 HASTINGS L.J. 1365 (2015).

93. *Perry v. Brown*, 671 F. 3d 1052, 1079-80 (9th Cir. 2012) (relying on *Romer v. Evans*, 517 U.S. 620 (1996)). For the sake of completeness, it should be noted that on June 26, 2013, the U.S. Supreme Court rendered a decision declining to review the Ninth Circuit’s decision on the basis that the appellants lacked standing at the Supreme Court. The Supreme Court further ruled that proponents of Proposition 8 also lacked standing in the court below, and that the Ninth Circuit’s ruling should have been dismissed on that basis. The case was returned to the Ninth Circuit with instructions to vacate its former ruling (affirming the district court’s ruling), leaving the original district court ruling (overturning Proposition 8) as the final ruling in the case. *Hollingsworth v. Perry*, 570 U.S. 693 (2013). These procedural issues do not affect the general, theoretical analysis set herein.

94. Konnoth, *supra* note 92 (citing Margaret Jane Radin, *Property and Personhood*, 34 STAN. L. REV. 957 (1982)).

95. Radin, *supra* note 94, at 968. This idea has substantial empirical support and theoretical support in consumer research (see, for example, Russell W. Belk, *Possessions and the Extended Self*, 15 J. CONSUMER RES. 139 (1988) and Banwari Mittal, *I, Me, and Mine – How Products Become Consumers’ Extended Selves*, 5 J. CONSUMER BEHAV. 550 (2006)), and, of course, in the philosophy of technology.

case of rights and moral entitlements, is caused, at least in part, by the injury to personhood that we perceive when an entitlement is taken away.<sup>96</sup> It is almost trivial to say that the rights we have or believe we should have help construct who we are and help develop our personalities. Taking away a right, which is connected to ourselves and our identities, therefore places a much greater burden on our ability to define our own identity.<sup>97</sup> Moreover, at a very basic level, when certain property is needed in order to exercise a right, the loss of such property may effectively extinguish the right, in which case the feeling of loss can be attributed not to the loss of the property *per se*, but to the loss of what the property enables one to do.<sup>98</sup>

The same principles and logic can be applied to the context of technology and the digital ecosystem.<sup>99</sup> The idea of having expressive opportunities at the tips of our fingers has taken root in our being to the point at which we have an expectation that this state of affairs will persist, as well as a notion that we have acquired a right to its continuance. Moreover, so-called “digital natives”<sup>100</sup> have not even *acquired* this notion—they were born with it. In this regard, the language of “technological change,” which is often used as a framework for analyzing the relative improvements brought about by the Internet, is helpful as an analytical tool for putting the development of the Internet in historical perspective, but it is not accurate as an instrument for describing the personal experience of many, and quite soon most, Internet users. For those of us who have experienced the transition to the digital age, a distinction between having the freedom to speak and having the (technological) means to exercise that freedom may still be conceptually understandable (though dated), and so for us there is a sense of talking about the “new” practical individual freedom made feasible by the digital ecosystem.<sup>101</sup> For those users who have grown up with the Internet, however, there is nothing “new” about the practical individual

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96. Konnoth, *supra* note 92, at 1378-81.

97. *Id.* at 1381-82.

98. *Id.*

99. In this regard, it is worth noting that “[s]tudies also suggest that the [endowment] effect exists when no *legal* entitlement, *per se*, is at issue at all.” Korobkin, *supra* note 88, at 1235 (emphasis added).

100. JOHN PALFREY & URS GASSER, BORN DIGITAL: UNDERSTANDING THE FIRST GENERATION OF DIGITAL NATIVES 1 (2008) (defining “digital natives” as people who were born after 1980, have access to networked digital technologies, and have the skills to use those technologies).

101. This is a central theme in Benkler’s work, for example. *See* BENKLER, *supra* note 9, at 139.

freedom that the Internet is said to provide. It is not something which now complements a separate, previously-existing liberty, but simply what such users know and understand as a constitutive, inseparable part of their freedom of expression.<sup>102</sup>

*D. A Rich Conception of Autonomy*

The way we perceive personal autonomy in the digital ecosystem constitutes another crucial reason for putting into question the continuing relevance of traditional model-conceptions, worked out by twentieth-century liberal political theory, for societies “dominated by sophisticated networks and technologies designed to support flows of information.”<sup>103</sup>

As described by Benkler, the digital ecosystem supports a substantive and rich conception of autonomy as a practical lived experience. The sense of enhanced individual autonomy brought about by the emergence of the digital ecosystem lies in the practical capacities that this system provides to individuals, and this enhanced autonomy is at the core of all improvements associated with the digital ecosystem.<sup>104</sup> This perception of individual autonomy is quite different from most accounts of autonomy found in traditional free speech theory. In traditional free speech theory, personal autonomy is considered one of the three most important justifications for freedom of expression, alongside the attainment of truth and securing democratic participation (collective self-governance).<sup>105</sup>

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102. *Cf. e.g.*, DON TAPSCOTT, GROWN UP DIGITAL 76 (2009) (“Young people insist on freedom of choice. It’s a basic feature of their media diet. Instead of listening to the top 10 hits on the radio, the Net Geners compose iPod playlist of thousands of songs chosen from millions of tunes available.”); Samuel Blanchard, *Teaching and Learning for the Net Generation: A Robotic-Based Learning Approach*, in INTERDISCIPLINARITY, CREATIVITY, AND LEARNING 217, 222 (Bharath Sriraman, Viktor Freiman & Nicole Lirette-Pitre eds., 2009) (arguing that an important aspect in the learning experience of the “net generation” is an insistence on active choice and expression).

103. Hoffmann, *supra* note 84, at 118.

104. BENKLER, *supra* note 9, at 133-75.

105. *See generally, e.g.*, Thomas I. Emerson, *Toward a General Theory of the First Amendment*, 72 YALE L.J. (1963); Kent Greenawalt, *Free Speech Justifications*, 89 COLUM. L. REV. 119 (1989). Emerson specifies a fourth rationale for the right to freedom of expression—maintaining the balance between stability and change in society—but this rationale has not gained the same weight as the other three. Other, less influential defenses of freedom of expression, which have been given by scholars, include the argument from distrust (see, for example, Vincent Blasi, *The Checking Value in First Amendment Theory*, 2 L. & SOC. INQUIRY 521 (1977) and Richard A. Epstein, *Property, Speech, and the Politics of Distrust*, 59 U. CHI. L. REV. 41 (1992)) and the argument from tolerance (see, for

Although proponents of the autonomy defense of freedom of expression have not elaborated much on what they mean by “autonomy,”<sup>106</sup> three main aspects of the mainstream understanding of autonomy can still be drawn from the different accounts found in the literature. First, all commentators agree that “autonomy” refers in some way to self-government.<sup>107</sup> Second, autonomy-based defenses of freedom of expression tend to focus on either the perspective of the speaker or the perspective of the listener, but not on both. Other approaches, which do not necessarily privilege one perspective over the other, nevertheless treat the interests of speakers and the interests of listeners as separate entities.<sup>108</sup> Third, most accounts of autonomy equate it with the ability to make rational choices or with having what Dworkin labeled “moral independence,”<sup>109</sup> but do not count the ability to act on one’s choices as defining a person’s autonomy.<sup>110</sup>

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example, LEE C. BOLLINGER, *THE TOLERANT SOCIETY* (1986); DAVID A. J. RICHARDS, *TOLERATION AND THE CONSTITUTION* 217-18 (1986); Steven D. Smith, *The Restoration of Tolerance*, 78 CALIF. L. REV. 305 (1990).

106. For autonomy-based defenses of freedom of expression see generally, for example, BAKER, *supra* note 45; Martin H. Redish, *The Value of Free Speech*, 130 U. PA. L. REV. 591 (1982); David A. J. Richards, *Free Speech and Obscenity Law: Toward a Moral Theory of the First Amendment*, 123 U. PA. L. REV. 45 (1974); Richard H. Fallon, Jr., *Two Senses of Autonomy*, 46 STAN. L. REV. 875 (1994); Ronald Dworkin, *Liberty and Pornography*, 38 N.Y. REV. BOOKS 12 (1991); Ronald Dworkin, *The Coming Battles over Free Speech*, 39 N.Y. REV. BOOKS 55 (1992); Ronald Dworkin, *Women and Pornography*, 40 N.Y. REV. BOOKS 36 (1993); Joseph Raz, *Free Expression and Personal Identification*, 11 O.J.L.S. 303 (1991); Scanlon, *supra* note 45; T.M. Scanlon, Jr., *Freedom of Expression and Categories of Expression*, 40 U. PITT. L. REV. 519 (1979); Charles Fried, *The New First Amendment Jurisprudence: A Threat to Liberty*, 59 U. CHI. L. REV. 225 (1992); David A. Strauss, *Persuasion, Autonomy, and Freedom of Expression*, 91 COLUM. L. REV. 334 (1991); Thomas Nagel, *Personal Rights and Public Space*, 24 PHIL. & PUB. AFF. 83 (1995); Dana Remus Irwin, *Freedom of Thought: The First Amendment and the Scientific Method*, 2005 WIS. L. REV. 1479 (2005); Christina E. Wells, *Reinvigorating Autonomy: Freedom and Responsibility in the Supreme Court’s First Amendment Jurisprudence*, 32 HARV. C.R.-C.L. L. REV. 159 (1997).

107. See, e.g., Susan J. Brison, *The Autonomy Defense of Free Speech*, 108 ETHICS 312, 323 (1998). For an overview of the philosophical literature on the subject, see generally, for example, *AUTONOMY AND THE CHALLENGES TO LIBERALISM* (John Christman & Joel Anderson eds., 2009).

108. For example, Baker’s and Redish’s accounts of autonomy focus on the interests of the speaker, while Scanlon’s account focuses on those of the audience. For a more detailed analysis of this observation, see Shiffrin, *supra* note 81.

109. See RONALD DWORKIN, *A MATTER OF PRINCIPLE* 353-72 (1985).

110. Brison, *supra* note 107, at 324-38 (analyzing six accounts of autonomy in free speech literature).

Interestingly, in recent years, with the development of digital technologies, the argument from individual autonomy has gained popularity as a primary justification for freedom of expression<sup>111</sup> (compared to the second half of the twentieth century when the argument from democracy was most dominant),<sup>112</sup> but the conception of autonomy on which that argument has traditionally relied has not been seriously reassessed by free speech theorists. This is despite the fact that the mainstream conception of autonomy obviously does not reflect autonomy as a practical lived experience by people in the digital ecosystem. In this regard, the distinction between the perspective of the speaker and the perspective of the listener, which may have been helpful in the context of the mass-media model of information production, is much less relevant in the context of the digital ecosystem, where each user is simultaneously both a (potential) speaker and a (potential) listener.<sup>113</sup> Similarly, an exclusion of one's ability to act on their choices from the conception of individual autonomy practically ignores the realities of the digital ecosystem, as well as its main contribution to individuals—the sense of having a tangible capacity to act that is inseparable from the mental capacity to choose.<sup>114</sup>

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111. See generally Balkin, *supra* note 22; Jack M. Balkin, *The Future of Free Expression in a Digital Age*, 36 PEPP. L. REV. 427 (2009).

112. See, e.g., ERIC BARENDT, FREEDOM OF SPEECH 23 (1985) (arguing that democratic theory of free speech has been “the most influential . . . in the development of the twentieth-century free speech law”); Fiss, *supra* note 44, at 1409 (noting that the theory “now dominates the field”); Balkin, *supra* note 22, at 28 (“Probably the most important theoretical approach to freedom of speech in the twentieth century has argued that freedom of speech is valuable because it preserves and promotes democracy and democratic self-government.”). Interestingly, the spread of ICTs has led scholars in the democratic theory tradition to turn their argument on its head, replacing concerns of concentration for concerns of fragmentation. See generally, e.g., CASS R. SUNSTEIN, REPUBLIC.COM 1-22 (2001).

113. For a successful attempt, in my mind, to merge the perspectives of the speaker and the listener into a thinker-based approach to freedom of expression (without tying that approach to technological transformations), see generally Shiffirin, *supra* note 81.

114. This observation is closely related to the idea of adaptive preferences—the idea that people's preferences adapt to social conditions so that, when society puts something out of reach for them, they learn not to want those things. For a discussion of the idea of adaptive preferences, see, for example, JON ELSTER, SOUR GRAPES: STUDIES IN THE SUBVERSION OF RATIONALITY 109-40 (1983); Martha C. Nussbaum, *Adaptive Preferences and Women's Options*, 17 ECON. & PHIL. 67 (2001). If information technology puts expressive capacity out of reach for most people, as in the case of the twentieth-century information environment, then people learn not to treat it as being within the range of their options and, eventually, the prevailing norm ceases to count expressive capacity as a personal

### III. DIMINISHING LIBERTY AND ITS MORAL IMPLICATIONS

As I have argued in Part II, the Internet has brought with it the potential for expressive capacity for all and, with it, an understanding of freedom of expression as a right incorporating both liberty and capacity aspects. Part III will shift the focus to the darker side of the digital age, in which the very system of free expression that provides individuals more expressive capacity than ever before also systematically infringes upon their liberty of expression, arguably more than ever before. As I shall demonstrate in this Part, the process of diminishing liberty follows along at least six related dimensions, which will be discussed in turn:

- A. Interference from multiple sources;
- B. State-encouraged private interference;
- C. Multiple modes of interference;
- D. New-media concentration;
- E. Lack of anonymity; and
- F. Lack of inviolability.

#### *A. Interference from Multiple Sources*

The primary driver of diminishing liberty is the fact that individual speech is now subject to actual and potential interference from multiple sources, most of which are private entities not bound by the constraints imposed on the state. Speech on the Internet requires a series of intermediaries—web host providers, upstream providers, domain name server providers, Internet service providers (ISPs), search engines, third-party platforms (e.g. social networks), *et cetera*—in order to reach its audience.<sup>115</sup> These intermediaries are potential choke points in a system that enables speech online while providing multi-dimensional possibilities for silencing speech. Whether it is Google, Facebook, Twitter, Apple, Amazon, or some other Internet giant, most speech regulation today is private,<sup>116</sup>

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entitlement. The shape of the right to freedom of expression is determined, so to speak, by the perceived practicalities of the technological environment. *Cf.* GRIFFIN, *supra* note 34, at 192. But if the practicalities of the technological environment change, then the range of options open to individuals, and with them their accepted norms and preferences, may change with them.

115. For a helpful illustration of this observation, see FREE SPEECH: ONLY AS STRONG AS THE WEAKEST LINK, ELECTRONIC FRONTIER FOUNDATION, <https://www.eff.org/free-speech-weak-link> (last visited Jan. 6, 2018).

116. *See, e.g.*, Balkin, *supra* note 111; Dawn C. Nunziato, *The Death of the Public Forum in Cyberspace*, 20 BERKELEY TECH. L.J. 1115 (2005); Nancy S. Kim & D.A. Jeremy Telman, *Internet Giants as Quasi-Governmental Actors and the Limits of Contractual Consent*, 80 MO. L. REV. 723, 755-56 (2015).

performed by so-called “Super-Intermediaries.”<sup>117</sup> Super-Intermediaries “effectively engage in private speech rulemaking, adjudication, and enforcement,” through the contractual language of their “Terms of Use,”<sup>118</sup> and, as noted by Jeffrey Rosen, “exercise far more power over speech than does the Supreme Court.”<sup>119</sup> The lawyers leading top technology companies “are shaping the future of free expression.”<sup>120</sup> Marvin Ammori has even argued that “some decades from now, we will likely celebrate these lawyers just as fervently as we celebrate those who defended *The New York Times* in *New York Times v. Sullivan*.”<sup>121</sup>

However, before we celebrate the lawyers of online intermediaries for their indispensable contribution to freedom of expression, it would be advisable to pause and contemplate the implications of a system of free expression with regulators who write, apply, and enforce their own rules; lawyers who do not argue a case before judges (as the lawyers in *Sullivan* did), but rather act as judges themselves; and automated systems that actually “make” most of the day-to-day decisions, which remain largely invisible to users.<sup>122</sup> The reality of our digital ecosystem is that a small number of powerful private corporations, like Google and Facebook, are in a position to exert unprecedented power and control over others’ speech—arguably more power and control than states (or at least democratic states) are able to exert over the speech of their citizens, considering that these private corporations neither are subject to a system of

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117. Internet intermediaries include “any service provider that enables online interaction through either paid subscription or general availability to the public.” Jacqueline D. Lipton, *Law of the Intermediated Information Exchange*, 64 FLA. L. REV. 1337, 1343-44 (2012). “Super Intermediaries” are particularly powerful Internet intermediaries. See Ira Steven Nathenson, *Super-Intermediaries, Code, Human Rights*, 8 INTERCULTURAL HUM. RTS. L. REV. 19, 34-71 (2013) (identifying nine main features, which make an intermediary a “Super-Intermediary”—interactivity, networking, personalization, governmental legal scrutiny, private legal scrutiny, internal legal scrutiny, political activity, ubiquity, hero/villain ambiguity—and classifying them under three categories: user experience, sources and types of legal scrutiny, and reputation).

118. Marvin Ammori, *The “New” New York Times: Free Speech Lawyering in the Age of Google and Twitter*, 127 HARV. L. REV. 2259, 2273 (2014).

119. Jeffrey Rosen, Lecture, *The Deciders: The Future of Privacy and Free Speech in the Age of Facebook and Google*, 80 FORDHAM L. REV. 1525, 1529 (2012).

120. Ammori, *supra* note 118, at 2261.

121. *Id.* at 2295.

122. See, e.g., Nanna Bonde Thylstrup, *The Invisibilities of Internet Censorship*, in INVISIBILITY STUDIES: SURVEILLANCE, TRANSPARENCY AND THE HIDDEN IN CONTEMPORARY CULTURE 301, 309-11 (Henriette Steiner & Kristin Veel eds., 2015).

checks and balances, nor perceive themselves as having any formal duty to respect their users' fundamental right to freedom of expression.<sup>123</sup> This state of affairs is no less than troubling for the liberty aspect of freedom of expression.

### 1. Broadband Service Providers

Until recent years, concerns regarding online intermediaries' potential threat to freedom of expression focused mainly on operators of the Internet's physical layer, i.e. broadband service providers (BSPs).<sup>124</sup> Generally speaking, the Internet has four major participants: end users, BSPs, backbone networks, and edge (i.e. content and application) providers.<sup>125</sup> End users connect to the Internet and interconnect with edge providers and other end users through BSPs, which themselves interconnect through backbone providers.<sup>126</sup> The remarkable success of the Internet is often attributed to its "open" network architecture, which is both "end-to-end" and "dumb," i.e. the network delivers packets of data equally over the physical infrastructure in a "best effort," regardless of their content, using a set of standard, non-proprietary protocols (TCP/IP)

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123. See, e.g., Tim Wu, *Is Filtering Censorship? The Second Free Speech Tradition*, in CONSTITUTION 3.0: FREEDOM AND TECHNOLOGICAL CHANGE 83, 96 (Jeffrey Rosen & Benjamin Wittes eds., 2011); Ben Wagner, *Governing Internet Expression: How Public and Private Regulation Shape Expression Governance*, 10 J. INFO. TECH. & POL'Y 389, 396-99 (2013); Jillian C. York, *Policing Content in the Quasi-Public Sphere*, OPENNET INITIATIVE BULLETIN, <https://opennet.net/sites/opennet.net/files/PolicingContent.pdf> (last visited Jan. 6, 2018); Frank Pasquale, *Platform Neutrality: Enhancing Freedom of Expression in Spheres of Private Power*, 17 THEORETICAL INQUIRIES L. 487 (2016).

124. As a matter of fact, the focus has been on BSPs' business practices' threats to innovation and economic efficiency, with concerns of freedom of expression occupying a relatively marginal (albeit gradually increasing) part in the overall debate. See generally, e.g., An-Shou Cheng et al., *The Role of Innovation and Wealth in the Net Neutrality Debate: A Content Analysis of Human Values in Congressional and FCC Hearings*, 63 J. AM. SOC'Y FOR INFO. SCI. & TECH. 1360 (2012) (conducting content analysis of public hearings on the issue of network neutrality and showing that the network neutrality debate revolved, at least until a late stage, primarily around differences in the frequency of expression of the values of "innovation" and "wealth").

125. *United States Telecom Ass'n v. FCC*, 825 F.3d 674, 690 (D.C. Cir. 2016). As shall be discussed below, however, this description is over-simplified.

126. *Id.* In recent years, some edge providers, such as Netflix and Google, have begun connecting directly to broadband providers' networks, thus avoiding the need to interconnect with the backbone, and some broadband providers, such as Comcast and AT&T, have begun developing their own backbone networks.

that facilitate targeted data diffusion.<sup>127</sup> However, quite early on in the development of the Internet, BSPs obtained the technological ability to control the flow of information online,<sup>128</sup> leading to concerns that they would “leverage their control over the Internet’s physical layer in order to restrict users’ access to applications and content.”<sup>129</sup> These concerns have not been merely theoretical, as over the years several cases have been recorded of BSPs applying discriminatory practices against certain Internet uses, such as P2P file sharing, file transfer using File Transfer Protocol (FTP) and Voice over Internet Protocol (VoIP),<sup>130</sup> and even against specific content.<sup>131</sup>

Academic, political, and public resistance to such potential and actual discriminatory practices developed under the general concept of “network neutrality,” the common-carrier-like principle that

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127. See, e.g., Tim Wu, *Network Neutrality, Broadband Discrimination*, 2 J. ON TELECOMM. & HIGH TECH. L. 141 (2003); Yemini, *supra* note 52, at ¶ 1; *Net Neutrality: Hearing Before the S. Comm. on Commerce, Science and Transportation*, 109th Cong. 2 (2006) (statement of Vinton G. Cerf, Vice President and Chief Internet Evangelist, Google Inc.); Edward W. Felten, *Nuts and Bolts of Network Neutrality* 1-2 (2006), <https://www.cs.princeton.edu/courses/archive/fall09/cos109/neutrality.pdf>; Mark A. Lemley & Lawrence Lessig, *The End of End-to-End: Preserving the Architecture of the Internet in the Broadband Era*, 48 UCLA L. REV. 925 (2001); Andrew Patrick & Eric Scharphorn, *Network Neutrality and the First Amendment*, 22 MICH. TELECOMM. & TECH. L. REV. 93, 99-100 (2015). For an overview of the history and the political nature of TCP/IP, see, for example, Rebekah Larsen, *The Political Nature of TCP/IP*, MOMENTUM, Apr. 18, 2012, <http://repository.upenn.edu/cgi/viewcontent.cgi?article=1004&context=momentum>.

128. Primarily through the use of deep packet inspection (DPI) technologies. See, e.g., Ralf Bendrath & Milton Mueller, *The End of the Net as We Know It? Deep Packet Inspection and Internet Governance*, 13 NEW MEDIA & SOC’Y 1142 (2011).

129. Patrick & Scharphorn, *supra* note 127, at 101. See generally also, e.g., Yemini, *supra* note 52.

130. See, e.g., *Verizon v. FCC*, 740 F.3d 623, 648 (D.C. Cir. 2014); Bill D. Herman, *Opening Bottlenecks: On Behalf of Mandated Network Neutrality*, 59 FED. COMM. L.J. 103, 119-21 (2006); Peter Svensson, *Comcast Blocks Some Internet Traffic*, WASH. POST (Oct. 19, 2007, 6:32 PM), <http://www.washingtonpost.com/wp-dyn/content/article/2007/10/19/AR2007101900842.html>; Nate Anderson, *Deep packet inspection meets ‘Net neutrality, CALEA*, ARS TECHNICA (July 25, 2007, 11:10 PM), <http://arstechnica.com/gadgets/2007/07/deep-packet-inspection-meets-net-neutrality/>.

131. A well-known example in this regard is Canada’s second largest telecommunications company, Telus, blocking of access to Voices for Change, a website supporting the Telecommunications Workers Union, together with 766 other websites that were hosted by the same server, but were otherwise unrelated. See, e.g., Tom Barret, *To Censor Pro-Union Website, Telus Blocked 766 Others*, TYEE (Aug. 4, 2005), <http://theyee.ca/News/2005/08/04/TelusCensor/>.

broadband networks should not discriminate between favored and disfavored Internet content, services, and applications.<sup>132</sup> In June 2016, after long years of public debate, contradictory regulatory policies, and several rounds of litigation, the U.S. Court of Appeals for the D.C. Circuit upheld the Federal Communication Commission's (FCC) 2015 Open Internet Rules,<sup>133</sup> which, generally speaking, prohibited ISPs from blocking, degrading, or impairing access to "lawful content, applications, services, or non-harmful devices,"<sup>134</sup> and from "favor[ing] some traffic over other traffic."<sup>135</sup> In May 2017, the D.C. Circuit dismissed a motion filed by wireless carriers and cable companies for an *en banc* rehearing of the three-judge panel decision of June 2016.<sup>136</sup> However, in December 2017, the now Republican-led FCC voted to repeal the Rules.<sup>137</sup> In response, public interest groups, twenty-one state attorneys general, and others filed lawsuits to block the FCC's action,<sup>138</sup> and legislators

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132. See Yemini, *supra* note 52, at ¶ 2. The term "common carrier" was defined in the Communications Act of 1934 as "any person engaged as a common carrier for hire, in interstate or foreign communication by wire or radio or in interstate or foreign radio transmission of energy, except where reference is made to common carriers not subject to this Act." See Communications Act of 1934, 47 U.S.C. § 153(10) (2000). Given the circularity of the definition, FCC pronouncements and court decisions have tried to clarify the term. See, e.g., FCC v. Midwest Video Corp., 440 U.S. 689, 701 (1979); In the Matter of Amendment of Parts 2, 91, and 99 of the Commission's Rules Insofar As They Relate to the Industrial Radiolocation Service, 5 F.C.C. 2d 197, 202 (1966) (describing a common carrier in the communications context as one that "makes a public offering to provide [communications facilities] whereby all members of the public who choose to employ such facilities may communicate or transmit intelligence of their own design and choosing"); In the Matter of Amendment of Parts 1, 2, 21, and 43 of the Commission's Rules and Regulations to Provide for Licensing and Regulation of Common Carrier Radio Stations in the Multipoint Distribution Service, 45 F.C.C. 2d 616, 618 (1974).

133. See United States Telecom Ass'n v. FCC, 855 F.3d 381 (D.C. Cir. 2017) (upholding *In re Protecting and Promoting the Open Internet*, 30 F.C.C. Rcd. 5601 (2015) (hereinafter 2015 Open Internet Rules)). The FCC's 2015 Open Internet Rules were adopted after the D.C. Circuit had vacated key portions of previous rules adopted by the FCC in 2010. See *Verizon v. FCC*, 740 F.3d 623 (D.C. Cir. 2014).

134. 2015 Open Internet Rules, *supra* note 133, at 5648 ¶ 112, 5651 ¶ 119.

135. *Id.* at 5653 ¶ 125.

136. See *United States Telecom Ass'n v. FCC*, 855 F.3d 381 (2017) (*en banc*).

137. *In the Matter of Restoring Internet Freedom*, 33 F.C.C. Rcd. 311 (2018).

138. See, e.g., Cecilia Kang, *Flurry of Lawsuits Filed to Fight Repeal of Net Neutrality*, N.Y. TIMES (Jan. 17, 2018), <https://www.nytimes.com/2018/01/16/technology/net-neutrality-lawsuit-attorneys-general.html>.

attempted to overturn the FCC's order.<sup>139</sup> The last word on this matter has, therefore, not yet been said.

## 2. Content Distribution Networks and Cloud Providers

Notwithstanding the importance of network neutrality, this principle, even if applied, only regulates BSPs at the packet level, and other important actors that exert control over our speech environment are not required to conform to any universal policy at all. These include actors other than BSPs that are involved in the online content delivery chain and, most importantly, major edge providers, which enjoy regulatory protection under the concept of network neutrality but are themselves in a unique position to control end users' speech.

The model of Internet content delivery on which network neutrality is premised treats BSPs as the ultimate connector between end users and edge providers, but in reality, the chain of content delivery is more complicated and involves more than BSPs and edge providers. In particular, cloud-based services and Content Distribution Networks (CDNs) have become key components in the delivery chain, while remaining largely absent from the debate.<sup>140</sup> CDNs play a major role by storing content closer to users (thereby reducing transit costs and improving the quality of service). However, as shown by Maillé, Simon, and Tuffin, among others, profit-driven CDNs may favor one edge provider over another, as well as discriminate between BSPs themselves, which, from the end users' perspective, either enhances or degrades the performance of edge providers and/or BSPs, depending on both the users' and the providers' Service Level Agreements with CDNs.<sup>141</sup> This clearly

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139. See, e.g., Cecilia Kang, *Senate Democrats Push for a Net Neutrality Vote. Do They Have a Chance?*, N.Y. TIMES (Jan. 16, 2018), <https://www.nytimes.com/2018/01/16/technology/senate-net-neutrality.html>.

140. See, e.g., David Lametti, *The Cloud: Boundless Digital Potential of Enclosure 3.0?*, 17 VA. J.L. & TECH. 190 (2012); Patrick Maillé, Gwendal Simon & Bruno Tuffin, *Toward a Net Neutrality Debate that Conforms to the 2010s*, IEEE COMM. MAG., Mar. 2016, at 94 (2016).

141. See sources cited *supra* note 140; Patrick Maillé et al., *How Neutral is a CDN: An Economic Approach*, PROC. 10TH INT'L CONF. ON NETWORK AND SERV. MGMT. 336 (2014), <https://files.ifi.uzh.ch/stiller/CNSM%202014/pdf/54.pdf>; Patrick Maillé, Gwendal Simon & Bruno Tuffin, *Impact of Revenue-Driven CDN on the Competition among Network Operators*, PROC. 11TH INT'L CONF. ON NETWORK AND SERV. MGMT. 163 (2015), <http://dl.ifip.org/db/conf/cnsm/cnsm2015/1570158711.pdf>. In fact, conceptually, the mere operation of CDNs may be seen as undermining neutrality principles, since they offer

undermines neutrality principles, yet it does so without violating the established rules of network neutrality.

Many CDNs today are operated as on-demand software, made available over the so-called “Cloud.”<sup>142</sup> Cloud services provide computing capacity, network services, and large-scale data storage space, using the pooled resources of non-local, centralized computers. These services can generally be divided into three types, which cut across the Internet’s physical, logical, and content layers: Software as a Service (SaaS), Platform as a Service (PaaS), and Infrastructure as a Service (IaaS).<sup>143</sup> Google Cloud Platform, for example, offers twenty-seven different services of all three types.<sup>144</sup> Cloud services, and particularly SaaS, enable end users to store vast amounts of personal data, as well as access services and facilities that require strong computing capacities from “thin client” interfaces, such as a mobile phone or tablet, using only a Web browser.<sup>145</sup> Cloud computing may also facilitate user collaboration, since content stored on the Cloud can be accessed simultaneously by many users, rather than being “trapped” in any personal device.<sup>146</sup> However, as noted by David Lametti, the Cloud may also “reduce

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improved delivery for a fee. This is not very different from paid prioritization, which is prohibited for BSPs under the 2015 Open Internet Rules.

142. Microsoft Azure CDN, Google Cloud CDN, and Amazon CloudFront are prominent examples.

143. SaaS offers finished applications that end users can access through a “thin client” device, such as a mobile phone or tablet, using only a Web browser, without having control over any major aspect of the application (e.g. web-based email services, Google Docs); PaaS offers end users an operating system, programming software, and software development tools, which they use to develop their own applications, without having control over the physical infrastructure (e.g. Google App Engine); IaaS offers end users access to processing, storage, and other computer resources and allows the configuration of those resources (e.g. Amazon Elastic Compute Cloud). For a technical description of Cloud computing, see generally PETER MELL & TIMOTHY GRANCE, NAT’L INST. OF STANDARDS & TECH., SPECIAL PUB. 800-1145, THE NIST DEFINITION OF CLOUD COMPUTING (2011). See generally also, e.g., Christopher S. Yoo, *Cloud Computing: Architectural and Policy Implications*, 36 REV. INDUS. ORG. 405 (2011); Daniel J. Gervais & Daniel J. Hyndman, *Cloud Control: Copyright, Global Memes and Privacy*, 10 J. ON TELECOMM. & HIGH TECH. L. 53 (2012); Jasper P. Sluijs, Pierre Larouche & Wolf Sauter, *Cloud Computing in the EU Policy Sphere: Interoperability, Vertical Integration and the Internal Market*, 3 JIPITEC 12 (2012).

144. See *Google Cloud Platform Services Summary*, <https://cloud.google.com/terms/services> (last modified Dec. 13, 2018).

145. See, e.g., Primavera De Filippi & Miguel Said Vieira, *The Commodification of the Information Commons: The Case of Cloud Computing*, 16 COLUM. SCI. & TECH. L. REV. 102, 118 (2014).

146. *Id.* at 119-20.

the range of user possibilities for robust interaction with the Internet/Cloud in a manner which then prevents users from participating in the Internet as creators, collaborators, and sharers.”<sup>147</sup> The Cloud moves computing and storage from the “edge” of the network to the computing “core” of the Cloud,<sup>148</sup> thereby pushing toward a closed and centralized structure, which enables Cloud providers to shape and control when, where, and how users interact with their own or others’ content, as well as with the Internet in general.<sup>149</sup> Conceptually, this development is very similar to that which network neutrality is designed to address at the level of BSPs, yet it too does not violate any established regulatory restrictions.

Cloud providers’ control over users’ content may be exerted by way of contractual terms that grant Cloud providers the right to review stored content and remove such content for any or no reason,<sup>150</sup> as well as through the technical specifications that allow users to interact with stored content.<sup>151</sup> As more and more services are migrated to the Cloud, and as users become more dependent on Cloud providers, the standards of user interaction that govern closed Cloud systems marginalize the standards of interaction of the open Internet and eventually dictate the standards of the digital ecosystem as a whole. In this regard, Cloud systems lead to the commodification of peer-production,<sup>152</sup> while undermining users’ ability to “work around illegitimate blockages,”<sup>153</sup> an ability which only a few years ago had been hailed by Benkler, Balkin, and others as one of the Internet’s main contributions to innovation and freedom of expression.<sup>154</sup> The shift to Cloud services is also a change in ethos from an open-code Internet to more controlled environments that discourage what Balkin has called “routing around,”<sup>155</sup> and “glomming on.”<sup>156</sup>

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147. Lametti, *supra* note 140, at 197.

148. *Id.* at 209.

149. *Id.* at 214-17.

150. *See, e.g.*, MICROSOFT, *Live SDK - Terms of Use* § 5, <https://msdn.microsoft.com/en-us/onedrive/dn735994.aspx> (last updated Apr. 2014).

151. *See* De Filippi & Vieira, *supra* note 145, at 133.

152. *Id.* at 134-35.

153. Lametti, *supra* note 140, at 223.

154. *See, e.g.*, BENKLER, *supra* note 9, at 273-300; Balkin, *supra* note 22, at 7-8.

155. Balkin, *supra* note 22, at 9-12 (defining “routing around” as “reaching audiences directly, without going through a gatekeeper of an intermediary”).

156. *Id.* at 11 (defining “glomming on” as the ability to “appropriate and use something as a platform for innovation”).

### 3. Search Engines

Search engines are a particularly powerful gatekeeper in the digital ecosystem. Their basic function is to assist users in locating and accessing information relevant to their preferences and needs, and their principal value, as information intermediaries, lies in their ability to connect users seeking information with information providers.<sup>157</sup> Search engines typically perform this task through a three-step process: First, search engines “crawl” sources of information, particularly web pages, to learn what information they contain, including meta-information about the relations between the sources.<sup>158</sup> Second, search engines index the sources of information they cover using an algorithm that analyzes the information sources and their relationships according to a complex array of parameters. The result of this stage is a search index that determines the relevance and importance of the indexed information with regard to specific search terms.<sup>159</sup> The indexing algorithm provides much of a search engine’s value, because it can differentiate the search engine from competitors.<sup>160</sup> Third, search engines enable users to “run” searches, usually using a textual query, which the search engine analyzes by reference to its search index. The results of this analysis are typically presented as a list of links ranked in descending order of relevance to the search terms.<sup>161</sup> Importantly, the process

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157. For a short description of the basic functions of search engines and how they operate see, for example, James Grimmelmann, *The Structure of Search Engine Law*, 93 IOWA L. REV. 1, 6-14 (2007); James Grimmelmann, *Speech Engines*, 98 MINN. L. REV. 868, 876-79 (2014); Oren Bracha, *The Folklore of Informationalism: The Case of Search Engine Speech*, 82 FORDHAM L. REV. 1629, 1636-38 (2014).

158. See, e.g., Grimmelmann, *Speech Engines*, *supra* note 157, at 877; Bracha, *supra* note 157, at 1636.

159. See sources cited *supra* note 158.

160. See, e.g., Bracha, *supra* note 157, at 1636; DAVID A. VISE & MARK MALSEED, *THE GOOGLE STORY* 45-57 (2005); Steven Levy, *Exclusive: How Google’s Algorithm Rules the Web*, WIRED (Feb. 22, 2010, 12:00 PM), [http://www.wired.com/2010/02/ff\\_google\\_algorithm/](http://www.wired.com/2010/02/ff_google_algorithm/).

161. See, e.g., Grimmelmann, *Speech Engines*, *supra* note 157, at 877; Bracha, *supra* note 157, at 1636-37. Notably, the trend in determining “relevance” is toward personalization of search results, so that the results are tailored to the specific interests and characteristics of the user. For this purpose, the search engine profiles the user based on information about the user gathered by the search engine and analysis of the user’s past search and Internet usage patterns. The result is that identical search terms may produce different results for different users, based on the search engine’s profiling of each user. See, e.g., James Pitkow et al., *Personalized Search*, 45 COMM. ACM 50 (2002); Zhongming Ma, Gautam

described above is supposed to provide a list of so-called *organic links*, i.e. a list of results that the algorithmic indexing process “objectively” ranks in order of relevance, in association with the search terms.<sup>162</sup> However, alongside these organic links, a search engine’s results page may also include *sponsored links*—a list of advertisements related to the search, from which the search engines make money when the links are clicked.<sup>163</sup> Although sponsored links are typically displayed separately from organic links,<sup>164</sup> studies have shown that most search-engine users cannot differentiate between the two types of links.<sup>165</sup>

“Search engines,” as James Grimmelman noted, “are attention lenses; they bring the online world into focus.”<sup>166</sup> As early as the year 2000, ancient times by Internet standards, Lucas Inrona and Helen Nissenbaum observed that, on the Internet, “to exist is to be indexed by a search engine.”<sup>167</sup> This was even before “search engine” and “Google” practically became synonyms and before “Google” had been officially declared a verb.<sup>168</sup> Although users can

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Pant & Olivia R. Liu Sheng, *Interest-Based Personalized Search*, 25 ACM TRANSACTIONS ON INFO. SYS. 1 (2007).

162. See, e.g., JOHN BATTELLE, *THE SEARCH: HOW GOOGLE AND ITS RIVALS REWROTE THE RULES OF BUSINESS AND TRANSFORMED OUR CULTURE* 20 (2005); Maillé, Simon & Tuffin, *supra* note 140, at 97; Geoffrey A. Manne & Joshua D. Wright, *If Search Neutrality is the Answer, What’s the Question?*, ICLE Antitrust & Consumer Protection Program White Paper Series 8 (2011), [http://www.realclearmarkets.com/blog/Manne-Search\\_Neutrality%5B1%5D.pdf](http://www.realclearmarkets.com/blog/Manne-Search_Neutrality%5B1%5D.pdf).

163. See, e.g., Maillé, Simon & Tuffin, *supra* note 140, at 97; Geoffrey A. Manne & Joshua D. Wright, *supra* note 162, at 8.

164. See, e.g., Grimmelman, *Speech Engines*, *supra* note 157, at 876-77.

165. See, e.g., Greg Lastowka, *Google’s Law*, 73 BROOK. L. REV. 1327, 1345 (2008) (citing relevant empirical research). *But see* FEDERAL TRADE COMMISSION, STAFF REPORT, *BLURRED LINES: AN EXPLORATION OF CONSUMERS’ ADVERTISING RECOGNITION IN THE CONTEXTS OF SEARCH ENGINES AND NATIVE ADVERTISING* (2017), [https://www.ftc.gov/system/files/documents/reports/blurred-lines-exploration-consumers-advertising-recognition-contexts-search-engines-native/p164504\\_ftc\\_staff\\_report\\_re\\_digital\\_advertising\\_and\\_appendices.pdf](https://www.ftc.gov/system/files/documents/reports/blurred-lines-exploration-consumers-advertising-recognition-contexts-search-engines-native/p164504_ftc_staff_report_re_digital_advertising_and_appendices.pdf) (arguing that using some commonsense disclosure techniques like those implemented in FTC staff guidance to search engines can greatly increase the likelihood that search and native ads are recognizable as ads to consumers).

166. James Grimmelman, *Some Skepticism About Search Neutrality*, in *THE NEXT DIGITAL DECADE: ESSAYS ON THE FUTURE OF THE INTERNET* 435, 435 (Berin Szoka & Adam Marcus eds., 2010).

167. Lucas D. Inrona & Helen Nissenbaum, *Shaping the Web: Why the Politics of Search Engines Matters*, 16 INFO. SOC’Y 169, 171 (2000). See also, e.g., Niva Elkin-Koren, *Let the Crawlers Crawl: On Virtual Gatekeepers and the Right to Exclude Indexing*, 26 U. DAYTON L. REV. 179 (2001).

168. See, e.g., Nate Anderson, “Google” Declared a Verb, *ARS TECHNICA* (July 6, 2016, 11:09 AM), <http://arstechnica.com/uncategorized/2006/07/7198-2/>.

technically reach Internet content in other ways, search engines are an essential tool for managing and organizing the massive volumes of information existing online,<sup>169</sup> which is key to Web communication.<sup>170</sup> According to a survey conducted by Pew Research Center in 2012, using a search engine was the second most popular Internet activity, engaged in by 91% of American Internet users (second only to email, used by 92% of American Internet users).<sup>171</sup> Google processes approximately 1.2 trillion searches a year worldwide,<sup>172</sup> with a declared mission “to organize the world’s information and make it universally accessible and useful.”<sup>173</sup> This position makes search engines the window through which most Internet users see the Web,<sup>174</sup> thereby providing them with control over both the visibility and the effective accessibility of online content. Studies using eye-tracking technology, for example, have shown that users fixate on the results that rank highest, even when lower-ranked results are more relevant to their search.<sup>175</sup> An analysis of 300 million clicks on Google search results found that 91.5% of those clicks were on the first page of results, with 32.5% on the first

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169. As of November 2016, there are over 1.1 billion websites on the Web (a milestone first reached in September 2014), with this number increasing by the second. See INTERNET LIVE STATS, *Total Number of Websites*, <http://www.internetlivestats.com/total-number-of-websites/#trend> (last visited Jan. 6, 2018).

170. See, e.g., Lastowka, *supra* note 165, at 1332 (“[R]eams of information devoid of an organizing indexical scheme can be useless for all practical purposes. The same is true with the digital files on the Internet . . . .”); Andrew Carroll, *Don’t Be Evil...Unless It Increases Revenue: What the Operation of Credit Rating Agencies Can Teach Us about Google*, 31 TEMP. J. SCI. TECH. & ENVTL. L. 93, 97 (2012); Tansy Woan, *Searching for an Answer: Can Google Legally Manipulate Search Engine Results?*, U. PA. J. BUS. L. 294, 303 (2013).

171. Kristen Purcell, Joana Brenner & Lee Raine, *Search Engine Use 2012*, PEW RESEARCH CTR. (Mar. 9, 2012), <http://www.pewinternet.org/2012/03/09/search-engine-use-2012/>.

172. INTERNET LIVE STATS, *Google Search Statistics*, <http://www.internetlivestats.com/google-search-statistics/> (last visited Jan. 6, 2018).

173. GOOGLE, *About Google*, <https://www.google.com/intl/en/about/> (last visited Jan. 6, 2018).

174. Cf. Bracha & Pasquale, *supra* note 25, at 1177.

175. See, e.g., Thorsten Joachims et al., *Evaluating the Accuracy of Implicit Feedback from Clicks and Query Reformulations in Web Search*, 25 ACM TRANSACTIONS ON INFO. SYS., Art. 7 (2007); Bing Pan et al., *In Google We Trust: Users’ Decisions on Rank, Position and Relevancy*, 12 J. COMPUTER-MEDIATED COMM. 801 (2007); Zhiwei Jian & Edward Cutrell, *An Eye Tracking Study of the Effect of Target Rank on Web Search*, PROC. SIGCHI CONF. ON HUM. FACTORS COMPUTING SYS. 417 (2007); Lori Lorigo, et al., *Eye Tracking and Online Search: Lessons Learned and Challenges Ahead*, 59 J. AM. SOC’Y FOR INFO. SCI. & TECH. 1041 (2008).

result and 17.6% on the second.<sup>176</sup> The bottom item on the first results page drew 140% more clicks than the first item on the second page.<sup>177</sup> This pattern of use occurs because users assume that the search engine assigns higher ranks to the results most relevant to their needs (although they generally have no knowledge of how search technology works).<sup>178</sup> Thus, in the digital age, search engines are “vital speech-facilitating tools for both information providers and users.”<sup>179</sup>

Search engines’ extraordinary control over the Internet’s data flow generates several problems. First, in order to perform their task, search engines must apply some generally applicable set of criteria. These criteria inescapably give priority to some information providers over others.<sup>180</sup> The current system, it has been argued, has a strong bias toward majority preferences, well-financed speakers, and consumerist content (much like under the mass-media model of information production).<sup>181</sup> Second, search engines’ power is susceptible to abuse due to both intrinsic interests and external influences.<sup>182</sup> Search engines are frequently used by governments as

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176. CHITIKA INSIGHTS, THE VALUE OF GOOGLE RESULT POSITIONING 6 (2013), <http://info.chitika.com/uploads/4/9/2/1/49215843/chitikainsights-valueofgoogleresultspositioning.pdf>. See also, e.g., Bracha & Pasquale, *supra* note 25, at 1164-65 n.95-96.

177. CHITIKA INSIGHTS, *supra* note 176, at 5.

178. See, e.g., Susan L. Gerhart, *Do Web Search Engines Suppress Controversy*, 9 FIRST MONDAY (2004), <http://www.firstmonday.org/ojs/index.php/fm/article/view/1111/1031>.

179. Bracha, *supra* note 157, at 1641. See also, e.g., Elkin-Koren, *supra* note 167, at 185; Bracha & Pasquale, *supra* note 25, at 1164-65; Jennifer A. Chandler, *A Right to Reach an Audience: An Approach to Intermediary Bias on the Internet*, 35 HOFSTRA L. REV. 1095, 1107-08 (2007). Of course, as characteristic of the digital ecosystem, every user of a search engine is also a potential speaker in relation to information reached through online search.

180. See, e.g., Eric Goldman, *Search Engine Bias and the Demise of Search Engine Utopianism*, 8 YALE J.L. & TECH. 188, 189-97 (2006); Bracha & Pasquale, *supra* note 25, at 1165-66.

181. See, e.g., Goldman, *supra* note 180, at 193; Bracha & Pasquale, *supra* note 25, at 1165; Elizabeth Van Couvering, *Is Relevance Relevant? Market, Science, and War: Discourses of Search Engine Quality*, 12 J. COMPUTER-MEDIATED COMM. 866, 871-875 (2007).

182. See, e.g., Bracha, *supra* note 157, at 1641; Bracha & Pasquale, *supra* note 25, at 1165.

a censorial tool.<sup>183</sup> The most conspicuous example is China,<sup>184</sup> but many other countries also require search engines to filter content for various reasons.<sup>185</sup> Search engines may also manipulate their results for their own reasons.<sup>186</sup> They may decrease the visibility of or even entirely exclude particular sites from their rankings (or, conversely, increase the visibility of specific sites), in order to serve their self-interest, as a result of public pressures, in response to demands from other private players, and so on.<sup>187</sup>

Economic analysis has shown, for example, that search engines have a clear incentive to include in their organic results some results that are not necessarily among the most relevant, but can generate short-term revenues, the typical case involving results containing content from a provider vertically integrated with the search engine.<sup>188</sup> Until a few years ago, the response to this type of argument had often been that there is little, if any, evidence that search engines *de facto* manipulate their search results.<sup>189</sup> Recently,

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183. See, e.g., Derek E. Bambauer, *Cybersieves*, 59 DUKE L.J. 377, 381-86 (2009); Seth F. Kreimer, *Censorship by Proxy: The First Amendment, Internet Intermediaries, and the Problem of the Weakest Link*, 155 U. PA. L. REV. 11, 16-27 (2006).

184. See generally, e.g., Jonathan Zittrain & Benjamin Edelman, *Internet Filtering in China*, IEEE INTERNET COMPUTING, Mar.-Apr. 2003, at 70; OPENNET INITIATIVE, INTERNET FILTERING COUNTRY PROFILE FOR CHINA (Aug. 9, 2012), <http://access.opennet.net/wp-content/uploads/2011/12/accesscontested-china.pdf>; Dakuo Wang & Gloria Mark, *Internet Censorship in China: Examining User Awareness and Attitudes*, 22 ACM TOCHI 31 (2015); Fai Shen & Zhi'an Zhang, *Do Circumvention Tools Promote Democratic Values? Exploring the Correlates of Anti-Censorship Technology Adoption in China*, Working Paper (Feb. 18, 2015), [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2733659](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2733659).

185. See, e.g., Bambauer, *supra* note 183, at 381-82, 395 (mentioning India, France, United States, Iran, Indonesia, Japan, Australia, New Zealand, and Brazil as countries practicing Internet filtering for different reasons); JACK GOLDSMITH & TIM WU, WHO CONTROLS THE INTERNET? 70-75 (2006) (noting that the United States, France, and Germany all try to control the public's access to content through Google).

186. See generally, e.g., Introna & Nissenbaum, *supra* note 167; Bracha & Pasquale, *supra* note 25; Bracha, *supra* note 157; Carroll, *supra* note 170; Lastowka, *supra* note 165, at 1351-59; Nico van Eijk, *Search Engines, the New Bottleneck for Content Access*, in TELECOMMUNICATION MARKETS: DRIVERS AND IMPEDIMENTS 141, 146-48 (Brigitte Preissl, Justus Haucap & Peter Curwen eds., 2009).

187. See sources cited *supra* note 186.

188. See, e.g., Maillé, Simon & Tuffin, *supra* note 140, at 97.

189. See, e.g., Mark R. Patterson, *Non-Network Barriers to Network Neutrality*, 78 FORDHAM L. REV. 2843, 2862 (2010) (arguing that "for the most part there seems to be little if any evidence of search-engine non-neutrality"). Nevertheless, at least anecdotal examples of search engine manipulation have

however, there is mounting evidence that search engine manipulation may be widespread. In June 2017, the European Antitrust Commission announced that it had fined Google €2.42 billion for abusing its dominance as a search engine by giving illegal advantage to its own comparison-shopping service in its general search results.<sup>190</sup>

Of course, search engine manipulation may have far greater implications than its economic effects on the advertising market. As Bracha and Pasquale have argued, search engines' ability to shape the information and options visible to users can threaten the "democratic aspiration of a free, open, and diverse expressive sphere,"<sup>191</sup> undercut our sense of fairness, and undermine individual autonomy.<sup>192</sup> A recent study based on a series of controlled experiments conducted in the United States and India (including one held with eligible voters during the 2014 elections to the Indian Parliament) provides empirical support for these observations. The study by Epstein and Robertson demonstrates that biased search rankings can shift the voting preferences of undecided voters (arguably by 20% or more), that the shift can be significantly higher in some demographic groups, and that search bias can be masked so that people show no awareness of the manipulation.<sup>193</sup>

In response to these findings, head of Google search, Amit Singhal, published an article on Politico.com arguing that Google had a "great track record of providing open access to election information," and that "just as any electoral system must be trusted

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been detected. One case concerns Google's ploy to increase the visibility of Zagat's restaurant ratings, at the expense of Yelp's following the acquisition of Zagat by Google. *See, e.g.*, Tim Carmody, *Google Buys Zagat to Reinvent Mobile Search Engine*, WIRED (Sept. 8, 2011), <http://www.wired.com/2011/09/google-buys-zagat/>; Woan, *supra* note 170, at 331-32; Carroll, *supra* note 170, at 98-99. In another case, Google imposed a "penalty" on Foundem, a technology company that helps users compare prices for electronics and other goods (and therefore a Google competitor), causing all of its webpages to drop dramatically in Google's rankings. *See, e.g.*, Adam Raff, *Search, but You May Not Find*, N.Y. TIMES (Dec. 28, 2009), <https://www.nytimes.com/2009/12/28/opinion/28raff.html>.

190. *See* European Commission Press Release IP/17/1784, Commission Fines Google €2.42 Billion for Abusing Dominance as Search Engine by Giving Illegal Advantage to Own Comparison Shopping Service (June 27, 2017), [http://europa.eu/rapid/press-release\\_IP-17-1784\\_en.htm](http://europa.eu/rapid/press-release_IP-17-1784_en.htm).

191. Bracha & Pasquale, *supra* note 25, at 1173.

192. *Id.* at 1776-79. Bracha & Pasquale also note that search engine manipulation reduces economic efficiency and undermines fairness. *Id.* at 1173-76.

193. Robert Epstein & Ronald E. Robertson, *The Search Engine Manipulation Effect (SEME) and Its Possible Impact on the Outcomes of Elections*, 112 PROC. NAT'L ACAD. SCI. U.S. E4512, E4512 (2015).

to be considered valid, so too must [Google's] search results."<sup>194</sup> Interestingly, in its response, Google does not deny that its search results *can* be manipulated to influence elections; it only asks us to trust that it does not do so in practice.<sup>195</sup> Yet, the attempt to draw parallels between "any electoral system" and Google's search results is flawed and even misleading, as electoral systems are generally transparent and subject to scrutiny, while Google's search algorithm is not.<sup>196</sup>

In light of the foregoing, several commentators have called for regulation of search engine bias, with the idea of "search neutrality" (akin to net neutrality) serving as a governing principle.<sup>197</sup> To date, however, this important territory of our information environment remains at the absolute discretion of search engines. As noted above, some developments are taking place in Europe, albeit with a focus on specific suspected violations by Google of European antitrust law.<sup>198</sup> A similar investigation conducted by the U.S. Federal Trade Commission (FTC) ended without the FTC imposing any restrictions on Google relating to search manipulation.<sup>199</sup> The

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194. Amit Singhal, *A Flawed Elections Conspiracy Theory*, POLITICO MAG. (Aug. 26, 2015), <http://www.politico.com/magazine/story/2015/08/google-2016-election-121766>.

195. *Id.* ("Google has never ever re-ranked search results on any topic (including elections) to manipulate user sentiment.")

196. *See, e.g.*, Urs Gasser, *Regulating Search Engines: Taking Stock and Looking Ahead*, 8 YALE J.L. & TECH. 201, 203 (2006); Woan, *supra* note 170, at 298-99; Carroll, *supra* note 170, at 113-14 (arguing that search algorithms are protected trade secrets); Patterson, *supra* note 189, at 2855 (noting that "if search results are skewed, it is not clear that users would even detect it").

197. *See, e.g.*, Bracha & Pasquale, *supra* note 25; Bracha, *supra* note 157; Chandler, *supra* note 179; Andrew Odlyzko, *Network Neutrality, Search Neutrality, and the Never-Ending Conflict between Efficiency and Fairness in Markets*, 8 REV. NETWORK ECON. 40 (2009); Frank Pasquale, *Rankings, Reductionism, and Responsibility*, 54 CLEV. ST. L. REV. 115 (2006); Frank Pasquale, *Internet Nondiscrimination Principles: Commercial Ethics for Carriers and Search Engines*, 2008 U. CHI. LEGAL F. 263. *But see, e.g.*, Goldman, *supra* note 180; Woan, *supra* note 170; Volokh & Falk, *supra* note 25 (arguing against regulation of search engines).

198. *See, e.g.*, Ines Georgieva, *Search Neutrality as a Regulation Principle for Internet Search Engines: A Multidisciplinary Approach* (2014) (unpublished Master's thesis, Hogeschool Universiteit Brussel) (on file with Hogeschool Universiteit Brussel), [http://www.vlaamseregulatormedia.be/sites/default/files/masterproef\\_ines\\_georgieva.pdf](http://www.vlaamseregulatormedia.be/sites/default/files/masterproef_ines_georgieva.pdf) (arguing that, under the current law of the EU, there is no legal framework able to ensure neutrality of search engines, but that adopting such a framework is both possible and desirable).

199. FEDERAL TRADE COMMISSION, Press Release, *Google Agrees to Change Its Business Practices to Resolve FTC Competition Concerns in the Markets for Devices Like Smart Phones, Games and Tablets, and in Online Search* (Jan. 3, 2013),

implications of search engine manipulation on users' freedom of expression have not yet made their way into serious policy discussions. In fact, it seems that much more attention is directed at efforts to establish that search engines' rankings are themselves protected speech and therefore immune to government regulation.<sup>200</sup> As noted by Bracha, the argument that search engines' rankings are protected speech under the First Amendment has become search engines' (or, more accurately, Google's) first line of defense against regulation, at the expense of users' speech interests.<sup>201</sup>

#### 4. Social Media Platforms

Social media platforms, and especially social networking sites and apps, such as Facebook and Twitter, have an enormous direct impact—perhaps more than any other type of online intermediary—on the liberty aspect of users' freedom of expression. Social media platforms have a “symbiotic relationship with their users;”<sup>202</sup> they depend on users' content and at the same time set the rules and architecture under which such content can be generated. The popular image of these platforms is often that of facilitators of human rights and social change,<sup>203</sup> an image which is nurtured and

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<https://www.ftc.gov/news-events/press-releases/2013/01/google-agrees-change-its-business-practices-resolve-ftc> (stating, *inter alia*, that “the introduction of Universal Search, as well as additional changes made to Google's search algorithms—even those that may have had the effect of harming individual competitors—could be plausibly justified as innovations that improved Google's product and the experience of its users”).

200. In several lower court cases, Google has successfully argued that its search results are protected speech under the First Amendment. *See, e.g.*, *Langdon v. Google, Inc.*, 474 F. Supp. 2d 622, 630 (D. Del. 2007); *Kinderstart.com v. Google, Inc.*, No. C 06-2057 JF (RS), 2007 WL 831806, at \*13 (N.D. Cal. Mar. 16, 2007); *Datner v. Yahoo*, No. BC 355217, slip op. at 2 (Cal. Super. Ct. Dec. 12, 2006); *Search King, Inc. v. Google Tech., Inc.*, No. CIV-02-1457-M, 2003 U.S. Dist. LEXIS 27193, at \*12 (W.D. Okla. May 27, 2003). A number of commentators have expressed support for this conclusion. *See, e.g.*, Volokh & Falk, *supra* note 25; Woan, *supra* note 170; Stuart Minor Benjamin, *Algorithms and Speech*, 161 U. PA. L. REV. 1445, 1467-72 (2013). Others, however, believe that legal regulation of manipulation practices is not barred by the First Amendment. *See, e.g.*, Bracha & Pasquale, *supra* note 25; Bracha, *supra* note 157.

201. *See* Bracha, *supra* note 157, at 1631-32.

202. Amy Binns, *Twitter City and Facebook Village: Teenage Girls' Personas and Experiences Influenced by Choice Architecture in Social Networking Sites*, 15 J. MEDIA PRAC. 71, 71 (2014).

203. Consider, for example, the ostensibly key role that social media played in the so-called Arab Spring. *See, e.g.*, Habibul Haque Khondker, *Role of the New Media in the Arab Spring*, 8 GLOBALIZATIONS 675 (2011); Gilad Lotan et

encouraged by such platforms' self-proclaimed values and missions. Twitter, for example, "believe[s] in free expression and think[s] every voice has the power to impact the world."<sup>204</sup> YouTube's "mission is to give everyone a voice and show them the world," and its "values are based on four essential freedoms"—expression, information, opportunity, and belonging.<sup>205</sup> Facebook's mission is to "[g]ive people the power to build community and bring the world closer together."<sup>206</sup> Facebook also "strives to create an online environment that facilitates communication, social connection, and the sharing of ideas, and in which users can engage in debate and advocate for the political ideas, parties, and candidates of their choice."<sup>207</sup> It even has, according to its own account, "a vital interest in ensuring that speech on Facebook and in other online communities is afforded the same constitutional protection as speech in newspapers, on television and in the town square."<sup>208</sup>

In reality, however, there is a significant discrepancy between this bald rhetoric (highlighting the capacity aspect of freedom of expression) and the actual role that social media platforms play in our system of free expression. Online social networks determine the speech rules for most of the content generated and the information exchanged today,<sup>209</sup> rules which users must accept in order to use the platform. As such, online social networks are "the most obvious examples of private ICT companies fulfilling a public regulatory role."<sup>210</sup> Examples are many and diverse: Apple's ban on any apps

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al., *The Revolutions Were Twitted: Information Flows During the 2011 Tunisian and Egyptian Revolutions*, 5 INT'L J. COMM. 1375 (2011); Ilhem Allagui & Johanne Kuebler, *The Arab Spring and the Role of ICTs: Editorial Introduction*, 5 INT'L J. COMM. 1435 (2011); Carol Huang, *Facebook and Twitter Key to Arab Spring Uprisings: Report*, NATIONAL (June 6, 2011), <http://www.thenational.ae/news/uae-news/facebook-and-twitter-key-to-arab-spring-uprisings-report>.

204. *Our Values*, TWITTER, [https://about.twitter.com/en\\_us/values.html](https://about.twitter.com/en_us/values.html) (last visited Dec. 23, 2018).

205. *About YouTube*, YOUTUBE, <https://www.youtube.com/yt/about/> (last visited Dec. 23, 2018).

206. *About Facebook*, FACEBOOK, [https://www.facebook.com/facebook/info?tab=page\\_info](https://www.facebook.com/facebook/info?tab=page_info) (last visited Dec. 23, 2018).

207. Brief of Facebook, Inc. as *Amicus Curiae* in Support of Plaintiff-Appellant Daniel Ray Carter, Jr. and in Support of Vacatur at 1, *Bland v. Roberts*, 857 F. Supp. 2d 599 (4th Cir. 2012) (No. 12-1671), [https://www.aclu.org/files/assets/bland\\_v.\\_roberts\\_appeal\\_-\\_facebook\\_amicus\\_brief.pdf](https://www.aclu.org/files/assets/bland_v._roberts_appeal_-_facebook_amicus_brief.pdf) [hereinafter Facebook's Brief].

208. *Id.*

209. *See, e.g.*, Ammori, *supra* note 118, at 2273-78.

210. Thorsten Busch, *Fair Information Technologies: The Corporate Responsibility of Online Social Networks as Public Regulators* (2013) (unpublished Ph.D. dissertation, University of St. Gallen),

that include “[d]efamatory, discriminatory, or mean-spirited content” unless it is generated by “[p]rofessional political satirists and humorists;”<sup>211</sup> Microsoft’s policy of suspending from Xbox Live anyone who adopts a Gamertag containing a reference to sexual orientation;<sup>212</sup> Reddit’s censoring of stories submitted on controversial topics;<sup>213</sup> LinkedIn’s blocking of posts related to the Tiananmen Square anniversary (going beyond the restrictions imposed even by the Chinese government);<sup>214</sup> Instagram’s suspension of the profile of conservative comedy group Toughen Up America without providing any reason;<sup>215</sup> Tumblr’s censoring of tags related to “Torrent;”<sup>216</sup> and WhatsApp’s blocking of links to rival app, Telegram.<sup>217</sup> The list can go on and on.

Facebook is an especially important case in light of its exceptionally dominant position in the social networking landscape.<sup>218</sup> As is typical of online intermediaries, Facebook’s

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<https://www.alexandria.unisg.ch/228863/>. See also, e.g., Tarleton Gillespie, *The Politics of ‘Platforms’*, 12 NEW MEDIA SOC’Y 347, 347 (2010) (arguing that digital platforms act as “curators of public discourse”).

211. *App Store Review Guidelines*, APPLE § 1.1.1, <https://developer.apple.com/app-store/review/guidelines/#objectionable-content> (last visited Dec. 23, 2018).

212. See, e.g., Ben Kuchera, *Microsoft Admits to, Defends Banning Lesbian Xbox Live User*, ARS TECHNICA (Feb. 26, 2009), <http://arstechnica.com/gaming/2009/02/microsoft-admits-to-defends-banning-lesbian-xbox-live-user/>.

213. See, e.g., Chris Taylor, *Reddit in Turmoil Over Censored Posts*, MASHABLE (Apr. 22, 2014), <http://mashable.com/2014/04/21/reddit-censored-posts/#WBACk41OjSqa>.

214. See, e.g., Tania Branigan, *LinkedIn under fire for censoring Tiananmen Square posts*, GUARDIAN (June 4, 2014), <https://www.theguardian.com/technology/2014/jun/04/linkedin-tiananmen-posts-china-censorship>.

215. See, e.g., Tom Ciccotta, *Instagram Censors Conservative Comedy Group, Provides No Reason*, BREITBART (June 20, 2016), <http://www.breitbart.com/tech/2016/06/20/instagram-censors-conservative-comedy-group/>.

216. See, e.g., Edwin Kee, *Tumblr Censors Tags Related to “Torrents”*, UBERGIZMO (Feb. 26, 2015), <http://www.ubergizmo.com/2015/02/tumblr-censors-tags-related-to-torrent/>.

217. See, e.g., Natasha Lomas, *WhatsApp is Blocking Links to Rival App Telegram on Android*, TECHCRUNCH (Dec. 1, 2015), <https://techcrunch.com/2015/12/01/whatsapp-is-blocking-links-to-rival-app-telegram-on-android>.

218. As of November 2016, Facebook was by far the leading social media website in the United States, based on share of visits, with 42.1% (followed by YouTube with 25.2%). See *Most famous social media sites in the U.S. 2016*, STATISTA, <http://www.statista.com/statistics/265773/market-share-of-the-most-popular-social-media-websites-in-the-us/> (last visited Jan. 6, 2018). The leading social network worldwide, ranked by number of active users, as of August 2017, was also Facebook with more than two billion monthly active users (followed by Google-owned YouTube with 1.5 billion monthly active users and Facebook-

Terms of Service (ToS) are formulated in extremely broad and general terms, to provide itself with almost unlimited discretion to regulate content on its platform.<sup>219</sup> This control over users' speech comes on top of the fact that a speech environment governed by contract puts users, at the outset, in a disadvantaged position. A user attempting to vindicate her right not to have her content removed would have to make her case through the filter of the ToS. This means not only that the user's claim would be analyzed from the perspective of contract law (rather than the standpoint of constitutional law), but also that the burden would be on her to prove that the removal of content was a breach of the ToS<sup>220</sup> (a burden which would be practically impossible to sustain).

To implement its regulatory functions, Facebook uses automated systems, hundreds of employees, outsourcing firms, and users themselves, who are asked to "flag" any content they consider inappropriate.<sup>221</sup> The internal process of content scrutiny is subject to internal guidelines that are not shared with the users,<sup>222</sup> and, accordingly, the considerations underlying decisions relating to users' content remain unknown. But even if Facebook's internal guidelines had been public, this would be of limited assistance to users since Facebook currently provides users with an opportunity to appeal content-removal decisions only in case of removal due to infringement of third-party intellectual property.<sup>223</sup> In practice,

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owned WhatsApp with 1.2 billion monthly active users). *See Global social media ranking 2018*, STATISTA, <http://www.statista.com/statistics/272014/global-social-networks-ranked-by-number-of-users/> (last visited Jan. 6, 2018).

219. *See Terms of Service*, FACEBOOK § 3(2), <https://www.facebook.com/terms.php> (last visited Nov. 13, 2018).

220. *See, e.g.*, Jacquelyn E. Fradette, *Online Terms of Service: A Shield for First Amendment Scrutiny of Government Action*, 89 NOTRE DAME L. REV. 947, 971 (2013).

221. *See, e.g.*, Ammori, *supra* note 118, at 2277; Wagner, *supra* note 123, at 21.

222. Earlier versions of Facebook's internal guidelines have been leaked and published online, but not at Facebook's own initiative. *See, e.g.*, Adrian Chen, *Inside Facebook's Outsourced Anti-Porn and Gore Brigade, Where 'Camel Toes' are More Offensive Than 'Crushed Heads'*, GAWKER (Feb. 16, 2012, 3:45 PM), <http://gawker.com/5885714/inside-facebooks-outsourced-anti-porn-and-gore-brigade-where-camel-toes-are-more-offensive-than-crushed-heads>; Adrian Chen, *Facebook Releases New Content Guidelines, Now Allows Bodily Fluids*, GAWKER (Feb. 16, 2012, 6:00 PM), <http://gawker.com/5885836/facebook-releases-new-content-guidelines-now-allows-bodily-fluids>.

223. *See* FACEBOOK, *Content I posted was removed because it was reported for intellectual property (copyright or trademark) infringement. What are my next steps?*, FACEBOOK HELP CENTER, [https://www.facebook.com/help/365111110185763?helpref=uf\\_permalink](https://www.facebook.com/help/365111110185763?helpref=uf_permalink) (last visited Dec. 24, 2018).

Facebook is more restrictive of content than other social media platforms.<sup>224</sup> As demonstrated by Andrew Tutt, for example, Facebook's algorithm often labels art as pornography and political speech as harassing or hateful, leading to the removal of speech that is undoubtedly constitutional.<sup>225</sup> Ben Wagner has suggested that this is because Facebook is designed as a network for anyone age thirteen or older, and therefore "managing" a reputation of a safe environment serves its overall commercial interest.<sup>226</sup> The challenge of scaling Facebook's policies for 1.4 billion users further pushes toward defining "clear" rules (rather than open standards) that can be consistently applied by hundreds of employees worldwide, without them having to make judgment calls.<sup>227</sup> The result, in any event, is a private regulatory system centered on restrictive norms akin to the norms of child protection legislation, rather than those of the First Amendment.<sup>228</sup>

At an even more basic level than that of its ToS and internal policies, Facebook regulates speech through choice architecture on its own websites, as well as via its increasing presence across the Web through its system of Social Plugins. While the Facebook platform, with its repeated empty boxes inviting comments on others' status updates, constantly nudges users to interact,<sup>229</sup> the type and scope of allowable and desirable interaction within the platform are carefully constructed. Facebook's "News Feed," for example, shows the most commented or liked status updates from amongst the user's friends and groups (the only exception being sponsored links or updates from businesses or fan pages), focusing on opinions and events within the user's own social circle.<sup>230</sup> A content analysis of Facebook's patents, press releases, and Securities and Exchange Commission (SEC) filings, conducted by Michael DeVito, has identified nine core algorithmic values that drive story selection on the Facebook News Feed: friend relationships, explicitly expressed user interests, prior user engagement, implicitly expressed user

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224. See Wagner, *supra* note 123, at 397.

225. See Andrew Tutt, *The New Speech*, 41 HASTINGS CONST. L.Q. 235, 275-79 (2014).

226. See Wagner, *supra* note 123, at 397.

227. See Ammori, *supra* note 118, at 2278.

228. See Wagner, *supra* note 123, at 398.

229. See, e.g., Binns, *supra* note 202, at 85.

230. *Id.* Notably, users are often not even aware of the existence of the News Feed curation algorithm. See, e.g., Motahhare Eslami et al., "I Always Assumed that I Wasn't Really that Close to [her]": Reasoning about Invisible Algorithms in the News Feed, PROC. 33RD ANN. ACM CONF. ON HUM. FACTORS COMPUTING SYS. 153 (2015).

preferences, post's age, platform priorities, page relationships, negatively expressed preferences, and content quality.<sup>231</sup> This set of selection values is obviously very different from what news outlets would consider relevant to their editorial decision-making.<sup>232</sup> DeVito has also found that friend relationships act as an overall influence on all other News Feed selection values.<sup>233</sup> Indeed, in June 2016 Facebook announced that it would change its News Feed's algorithm so that it would focus, to an even greater extent, on users' friends and family.<sup>234</sup>

The ways and the degree to which the News Feed *de facto* limits or prevents exposure to attitude-challenging information is subject to ongoing research.<sup>235</sup> It is clear, however, that the News Feed

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231. Michael A. DeVito, *From Editors to Algorithms: A Value-Based Approach to Understanding Story Selection in the Facebook News Feed*, 5 DIGITAL JOURNALISM 753 (2017).

232. See, e.g., Johan Galtung & Mari Ruge, *The Structure of Foreign News: The Presentation of the Congo, Cuba and Cyprus Crises in Four Norwegian Newspapers*, 1 J. PEACE RES. 64 (1965) (identifying twelve factors that play a role in the selection of news: frequency, threshold, unambiguity, meaningfulness, consonance, unexpectedness, continuity, composition, reference to elite nations, reference to elite people, reference to persons, reference to something negative); Tony Harcup & Deirdre O'Neill, *What Is News? Galtung and Ruge Revisited*, 2 JOURNALISM STUD. 261 (2001) (revisiting Galtung and Ruge's factors for news selection and suggesting an alternative set of factors: the power elite, celebrity, entertainment, surprise, bad news, good news, magnitude, relevance, follow-up, newspaper agenda).

233. DeVito, *supra* note 231.

234. See, e.g., Mike Isaac & Sydney Ember, *Facebook to Change News Feed to Focus on Friends and Family*, N.Y. TIMES (June 29, 2016), <https://www.nytimes.com/2016/06/30/technology/facebook-to-change-news-feed-to-focus-on-friends-and-family.html>.

235. See, e.g., Eytan Bakshy, Solomon Messing & Lada A. Adamic, *Exposure to Ideologically Diverse News and Opinion on Facebook*, 348 SCIENCE 1130 (2015) (discussing research conducted by Facebook employees parsing the Facebook pages of about ten million U.S. individuals with self-declared ideologies and finding that the curation of news feeds ideologically filters what we see, although its effect is modest relative to choices people make that filter information, including their selection of friends); Michela del Vicario et al., *Echo Chambers in the Age of Misinformation*, ARXIV (Dec. 22, 2015, 5:43 AM), <http://arxiv.org/pdf/1509.00189.pdf> (finding that homogeneity is the primary driver for the diffusion of content on Facebook); Donghee Yvette Wohn & Brian J. Bowe, *Micro Agenda Setters: The Effect of Social Media on Young Adults' Exposure to and Attitude toward News*, 2 SOC. MEDIA + SOC'Y 1 (2016) (finding that the primary filter of news on Facebook are the individuals on the user's network and that algorithms are a secondary filter); Matthew J. Williams, Iulia Cioroianu & Hywel T. P. Williams, *Different News for Different Views: Political News-Sharing Communities on Social Media through the UK General Election in 2015*, WORKSHOPS TENTH INT'L AAAI CONF. ON WEB & SOC. MEDIA (2016),

algorithm is biased, by design, toward creating and reinforcing echo chambers, in which users are exposed only to information from like-minded individuals, and toward producing agreement.<sup>236</sup> This inevitably follows from the fact that people similar to each other tend to be friends on Facebook,<sup>237</sup> combined with the fact, as noted above, that the primary value driving story selection on the News Feed is friend relationships. The result is a Feed of very little substantive news intermingled with a lot of other personalized information: commentary, gossip, personal observations, commercial messages, and so on.<sup>238</sup> Thus, with Facebook emerging as one of the most powerful news-referring sources,<sup>239</sup> Cass Sunstein's and Nicholas Negroponte's vision of the fragmented Daily Me—a communications package that is personally designed, with each component fully chosen in advance<sup>240</sup>—seems possible, but it comes with one important twist: Facebook gets to construct the Daily Me.

The News Feed is only one architectural tool through which Facebook constructs and controls its speech environment. An even more important tool is Facebook's system of social buttons through which Facebook enables only particular forms of social engagement and even dictates the range of emotions which users can express. Facebook's iconic Like button, which was introduced in February

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<https://www.aaii.org/ocs/index.php/ICWSM/ICWSM16/paper/view/13232/12850> (finding that ideological bias and selective news-sharing affect patterns of online media exposure in social media).

236. See generally, e.g., ELI PARISER, *THE FILTER BUBBLE* (2011); David Lazer, *The Rise of the Social Algorithm: Does Content Curation by Facebook Introduce Ideological Bias?*, 348 *SCIENCE* 1090 (2015); Zeynep Tufekci, *Facebook Said Its Algorithms Do Help Form Echo Chambers, and the Tech Press Missed It*, 32 *NEW PERSP. Q.* 9 (2015).

237. See, e.g., Jan-Erik Lönnqvist & Juha V.A. Itkonen, *Homogeneity of Personal Values and Personal Traits in Facebook Social Networks*, 60 *J. RES. PERSONALITY* 24 (2016).

238. As one recent study shows, only one in 300 outbound clicks from Facebook corresponds to substantive news while most other clicks correspond to video and photo-sharing sites. See Seth R. Flaxman, Sharad Goel & Justin M. Rao, *Filter Bubbles, Echo Chambers and Online News Consumption*, 80 *PUB. OPINION Q.* 298, 301 (2016).

239. See, e.g., Kenny Olmstead, Amy Mitchell & Tom Rosenstiel, *Navigating News Online: Where People Go, How They Get There and What Lures Them Away*, PEW RESEARCH CTR. (May 9, 2011), <http://www.journalism.org/2011/05/09/navigating-news-online>; Danny Wong, *In Q2, Facebook Drove 23.39% of Overall Visits to Sites*, SHAREAHOLIC BLOG (July 21, 2014), <https://blog.shareaholic.com/social-media-traffic-trends-07-2014/> (last visited Jan. 6, 2018).

240. See SUNSTEIN, *supra* note 112, at 1-22.

2009,<sup>241</sup> and expanded in 2010 to external websites through Facebook's system of Social Plugins,<sup>242</sup> is the basis of what Carolin Gerlitz and Anne Helmond have termed "the Like economy."<sup>243</sup> As Gerlitz and Helmond demonstrate, Facebook's extension into the entire Web by focusing on social buttons has led to the rise of Likes as *the* metric for online social engagement (surpassing the "hit" and "link" metrics of the informational web); this type of engagement can be easily transformed into numbers on button counters, and then traded and multiplied, while advancing Facebook as the central hub of the whole process.<sup>244</sup> The Like Social Plugin, as shown by Arnold Roosendaal, also functions as an effective tracking device that traces the activities of Facebook users, regardless of whether they actually use the button when visiting a website, and is even capable of tracking non-Facebook members, making all visitors to websites containing Facebook's Social Plugins participants-by-default in the Like economy.<sup>245</sup> From the perspective of freedom of expression, this Like-based system supports highly questionable practices. Facebook has been accused, for example, of recycling Likes of users and using them to promote "Related Posts" about products and stores on friends' News Feeds, which the users never endorsed and may have never even seen, all in a process entirely invisible to the users.<sup>246</sup> This was being done at about the same time when Facebook agreed to settle a class-action lawsuit over its use of users' identities to promote Sponsored Stories without the users'

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241. See Kathy H. Chan, "*I Like This*", FACEBOOK (Feb. 9, 2009, 6:00 PM), <https://www.facebook.com/notes/facebook/i-like-this/53024537130>.

242. See FACEBOOK, *How to Use the New Facebook Social Plugins for Your Business*, FACEBOOK (May 4, 2010, 12:29 PM), <https://www.facebook.com/notes/facebook-for-developers/how-to-use-the-new-facebook-social-plugins-for-your-business/394310302301>.

243. See Gerlitz & Helmond, *supra* note 12. See also BRIAN CARTER, *THE LIKE ECONOMY* (2011).

244. See *supra* note 243.

245. See Arnold Roosendaal, *Facebook Tracks and Traces Everyone: Like This!* (Tilburg Law Sch. Legal Stud. Res. Paper Series No. 03/2011), [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1717563](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1717563).

246. See, e.g., Damien Gayle, *Is Facebook 'Impersonating' Users to Promote Stories They've Never Seen to All Their Friends?*, MAILONLINE (Jan. 24, 2013, 8:53 AM), <http://www.dailymail.co.uk/sciencetech/article-2267575/Is-Facebook-impersonating-users-promote-stories-theyve-seen-friends.html>; Anthony Wing Kosner, *Facebook Is Recycling Your Likes to Promote Stories You've Never Seen to All Your Friends*, FORBES (Jan. 21, 2013, 8:04 AM), <http://www.forbes.com/sites/anthonykosner/2013/01/21/facebook-is-recycling-your-likes-to-promote-stories-youve-never-seen-to-all-your-friends/#54f8b4825777>; Bernard Meisler, *Why Are Dead People Liking Stuff on Facebook?*, READWRITE (Dec. 11, 2012), <http://readwrite.com/2012/12/11/why-are-dead-people-liking-stuff-on-facebook>.

consent.<sup>247</sup> These are clear instances of compelled speech, only the compelling entity, Facebook, is a corporation rather than the government.<sup>248</sup>

The Like economy also facilitates a web of positive sentiment and superficial social “engagement,” in which users “are constantly prompted to like, enjoy, recommend and buy as opposed to discuss and critique.”<sup>249</sup> For years, Facebook has refused to add to the Like button a Dislike counterpart.<sup>250</sup> Facebook CEO, Mark Zuckerberg, provided a rather odd explanation for why Facebook would not build a Dislike button, stating that enabling people to say that something isn’t good is “not good for the world.”<sup>251</sup> However, as commentators have pointed out, the real reason for Facebook’s opposition to a Dislike button (which does exist, for example, on YouTube) is most probably a business one.<sup>252</sup> Facebook’s algorithms optimize for “engagement”—posting, liking, clicking, sharing, and commenting; the more, the better. Anything discouraging people from mindlessly sharing, like a Dislike button, would undermine Facebook’s business model.<sup>253</sup> In February 2016, Facebook officially rolled out Reactions, an extension to the Like button that, according to Facebook, gives users “more ways to share

247. See *Fraleley v. Facebook, Inc.*, No. 11-CV-01726 (N.D. Cal. Aug. 26, 2013) (granting motion for final approval of settlement agreement); *Fraleley v. Facebook, Inc.*, No. 11-CV-01726 (N.D. Cal. Sept. 19, 2013) (granting final judgment).

248. For an analysis of the compelled speech doctrine under American jurisprudence, see, for example, Steven H. Shiffrin, *What is Wrong with Compelled Speech?*, 29 J.L. & POL. 499 (2014); Larry Alexander, *Compelled Speech*, 23 CONST. COMMENT. 147 (2006).

249. Gerlitz & Helmond, *supra* note 12, at 1362. See also, e.g., Michelle N. Meyer, *Two Cheers for Corporate Experimentation: The A/B Illusion and the Virtues of Data-Driven Innovation*, 13 COLO. TECH. L.J. 273, 282-83 (2015) (arguing that Facebook prioritizes positive content).

250. See, e.g., Gerlitz & Helmond, *supra* note 12, at 1362; Binns, *supra* note 202, at 77.

251. See, e.g., Gail Sullivan, *A “Dislike” Button for Facebook? That’s Not “Good for the World,” Says Zuckerberg*, WASH. POST (Dec. 12, 2014), <https://www.washingtonpost.com/news/morning-mix/wp/2014/12/12/a-dislike-button-for-facebook-thats-not-good-for-the-world-says-zuckerberg>. Notably, the assumption that the Like button is necessarily used for positive engagement is mistaken, as it can be used for negative purposes as well, such as liking a mean remark. See, e.g., Binns, *supra* note 202, at 77.

252. See, e.g., Veikko Eranti & Markku Lonkila, *The Social Significance of the Facebook Like Button*, 20 FIRST MONDAY (June 1, 2015), <http://www.firstmonday.dk/ojs/index.php/fm/article/view/5505/4581>; Will Oremus, *You Can’t Dislike This Article*, FUTURE TENSE BLOG (Dec. 15, 2014), [http://www.slate.com/articles/technology/future\\_tense/2014/12/facebook\\_dislike\\_button\\_why\\_mark\\_zuckerberg\\_won\\_t\\_allow\\_it.html](http://www.slate.com/articles/technology/future_tense/2014/12/facebook_dislike_button_why_mark_zuckerberg_won_t_allow_it.html).

253. See, e.g., Oremus, *supra* note 252.

[their] reaction to a post in a quick and easy way,”<sup>254</sup> and provides them “more authentic ways to quickly and easily respond to posts.”<sup>255</sup> Reactions include (in addition to Like) “Love,” “Haha,” “Wow,” “Sad,” and “Angry,” thus providing a limited way to express negative feelings (yet not to “Dislike”).<sup>256</sup> However, behind Facebook Reactions’ stated contribution to users’ social engagement lies enormous financial potential in that it provides brands a powerful tool for sentiment analysis.<sup>257</sup> In fact, shortly after the launch of Reactions, Belgian police warned citizens not to use Facebook’s new feature, to protect their privacy.<sup>258</sup> We see it also as a way for Facebook to fine-tune its ability to construct and monitor speech.

## 5. Additional Sources

The preceding analysis identifies the main potential sources of interference with speech in the digital ecosystem, but it by no means exhausts all possible sources. Apple, for example, exemplifies the integration of hardware, software, and content into one centralized, proprietary environment,<sup>259</sup> from the pentalobe screws physically

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254. Sammi Krug, *Reactions Now Available Globally*, FACEBOOK NEWSROOM (Feb. 24, 2016), <http://newsroom.fb.com/news/2016/02/reactions-now-available-globally>.

255. Kathleen Chaykowski, *Facebook No Longer Just Has a ‘Like’ Button, Thanks to Global Launch of Emoji ‘Reactions’*, FORBES (Feb. 24, 2016, 8:16 AM), <http://www.forbes.com/sites/kathleenchaykowski/2016/02/24/facebook-no-longer-just-has-a-like-button-thanks-to-global-launch-of-emoji-reactions/#374d982d4994>.

256. See, e.g., *id.*; Liz Stinson, *Facebook Reactions, the Totally Redesigned Like Button, Is Here*, WIRED (Feb. 24, 2016, 8:00 AM), <http://www.wired.com/2016/02/facebook-reactions-totally-redesigned-like-button>.

257. See, e.g., Geetika Vashisht & Sangharsh Thakur, *Facebook as a Corpus for Emoticons-Based Sentiment Analysis*, 4 IJETAE 904 (2014); Andrew Grojean, *Facebook Reactions: What the Redesigned Like Button Means for Marketers*, INTOUCH SOLUTIONS BLOG (Mar. 8, 2016), <https://www.intouchsol.com/blog/facebook-reactions-what-the-redesigned-like-button-means-for-marketers>; Matthew Mooney, *Facebook Reactions: The Future for Sentiment Analysis*, LINKEDIN (Nov. 17, 2015), <https://www.linkedin.com/pulse/facebook-reactions-future-sentiment-analysis-matthew-mooney>.

258. See, e.g., Andrew Griffin, *Facebook Reactions: Belgian Police Warn Citizens Not to React to Posts on Social Media*, INDEPENDENT (May 13, 2016), <http://www.independent.co.uk/life-style/gadgets-and-tech/news/facebook-reactions-belgian-police-warn-citizens-not-to-react-to-posts-on-social-media-a7027786.html>; Rhiannon Williams, *Don’t Use Facebook’s Reaction Buttons, Belgian Police Say*, TELEGRAPH (May 13, 2016, 2:44 PM), <http://www.telegraph.co.uk/technology/2016/05/13/dont-use-facebooks-reaction-buttons-if-you-value-privacy-belgian>.

259. See generally, e.g., JONATHAN L. ZITTRAIN, *THE FUTURE OF THE INTERNET – AND HOW TO STOP IT* 67 (2008).

sealing its iPhones,<sup>260</sup> to its tightly-controlled mobile operating system (iOS).<sup>261</sup> Payment processing intermediaries are in a unique position to exercise control over online transactions and associated speech, especially since approximately 80% of online transactions are made via a credit or debit card, and most of those transactions are processed through MasterCard's or Visa's payment systems.<sup>262</sup> Amazon, in its many fields of activity, is by far the most dominant player in the market for e-books<sup>263</sup> and decides the criteria by which its users are able to purchase and navigate books.<sup>264</sup> Amazon does not sell electronic versions of books but rather grants licenses to view them,<sup>265</sup> it does not allow Kindle users to loan or sell their e-books;<sup>266</sup> and in several of the bluntest (and most ironic) cases of interference with online content, it remotely removed e-books, including digital copies of George Orwell's "1984" and "Animal Farm," from users' Kindle devices, along with all work that had been saved by users on those copies.<sup>267</sup> This illustrates that all activity on e-readers is monitored and that Amazon can and will interfere with content on such devices.<sup>268</sup> Relevant examples can be drawn from all across the digital ecosystem, all of which demonstrate the multi-modal exposure of online speech to interference by others.

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260. See, e.g., Chris Foresman, *Apple "screwing" new iPhones out of simple DIY repair*, ARS TECHNICA (Jan. 20, 2011, 7:42 PM), <http://arstechnica.com/apple/2011/01/apple-screwing-new-iphones-out-of-simple-diy-repair>.

261. See, e.g., Feida Lin & Weiguo Yen, *Operating System Battle in the Ecosystem of Smartphone Industry*, PROC. FIRST INT'L SYMP. ON INFO. ENGINEERING AND ELECTRONIC COM. 617 (2009); Luis S. Hestres, *App Neutrality: Apple's App Store and Freedom of Expression Online*, 7 INT'L J. COMM. 1265 (2013).

262. See, e.g., Ronald J. Mann & Seth R. Belzley, *The Promise of Intermediary Liability*, 47 WM. & MARY L. REV. 239, 257-58, 280 (2005); Annemarie Bridy, *Internet Payment Blockades*, 67 FLA. L. REV. 1523, 1525-26 (2015). The most high-profile case of a "payment blockade" by online payment processors is that which was imposed on donations to WikiLeaks in August 2010, as a result of pressure by the U.S. government. See *id.* at 1524-25.

263. See, e.g., MARTIN MOORE, TECH GIANTS AND CIVIC POWER 13 (2016), <http://www.kcl.ac.uk/sspp/policy-institute/CMCP/Tech-Giants-and-Civic-Power.pdf> (last visited Jan. 6, 2018).

264. *Id.* at 29.

265. See AMAZON, *Kindle Store Terms of Use* (last updated Oct. 5, 2016), <http://www.amazon.com/gp/help/customer/display.html?nodeId=201014950>.

266. *Id.*

267. See, e.g., Brad Stone, *Amazon Erases Orwell Books from Kindle*, N.Y. TIMES, July 18, 2009, at B1.

268. See, e.g., Elizabeth Henslee, *Down the Rabbit Hole: E-books and User Privacy in the 21st Century*, 49 CREIGHTON L. REV. 23, 25 (2015).

*B. State-Encouraged Private Interference*

The privatization of speech regulation in the digital ecosystem not only exposes individuals' speech to interference from multiple sources, but also opens a variety of new channels for the classic historical censor, the government, to interfere with speech while avoiding constitutional scrutiny. Things that democratic governments could not have done directly can now be done via private online intermediaries. A textbook example of an informal state-orchestrated assault on freedom of expression, in collaboration with (or using) the private sector, is the shutdown of WikiLeaks' website in 2010.<sup>269</sup> However, as Derek Bambauer and Seth Kreimer, among others, have demonstrated, the case of WikiLeaks is not an isolated one, as the state regularly uses various methods of "hard" and "soft" censorship by proxy in order to control the Internet.<sup>270</sup> Jacquelin Fradette has shown, for example, how the government uses takedown requests directed at online intermediaries as a censorial tool. The fact that both users and the government act through intermediaries' ToS effectively shields the government from constitutional scrutiny of its takedown requests, while at the same time limiting speakers' ability to directly challenge government action concerning their speech.<sup>271</sup> In 2003, Michael Birnhack and Niva Elkin-Koren warned against the emergence of this type of informal public-private partnership, which they termed "the invisible handshake."<sup>272</sup> Recently, Elkin-Koren and Eldar Haber have, based on this notion, presented a thorough analysis of what they call "governance by proxy"—the rise of new types of collaboration between governments and online intermediaries in managing online

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269. See, e.g., Yochai Benkler, *A Free Irresponsible Press: Wikileaks and the Battle over the Soul of the Networked Fourth Estate*, 46 HARV. C.R.-C.L. L. REV. 311 (2011); Angela Daly, *Internet Privatization, Wikileaks, and Free Expression*, 8 INT'L J. COMM. 2693 (2014); Angela Daly, *Private Power and New Media: The Case of the Corporate Suppression of WikiLeaks and its Implications for the Exercise of Fundamental Rights on the Internet*, in HUMAN RIGHTS AND RISKS IN THE DIGITAL ERA 81 (Christina M. Akrivopoulou & Nicolaos Garipidis eds., 2012).

270. See, e.g., Kreimer, *supra* note 183; Bambauer, *supra* note 183; Derek E. Bambauer, *Orwell's Armchair*, 79 U. CHI. L. REV. 863 (2012).

271. See Fradette, *supra* note 220.

272. See Michael D. Birnhack & Niva Elkin-Koren, *The Invisible Handshake: The Reemergence of the State in the Digital Environment*, 8 VA. J.L. & TECH. 6 (2003).

behavior, which take place in a “regulatory twilight zone,” out of the reach of constitutional law.<sup>273</sup>

It is important to note, however, that informal collaboration between the government and online intermediaries is only one aspect of governance by proxy in the digital ecosystem. The government does not only take advantage of the fact that most speech today is intermediated, but also consciously delegates regulatory power to online intermediaries and formally reinforces their discretion to silence users’ speech. As Elkin-Koren and Maayan Perel have indicated, algorithmic copyright enforcement under the Digital Millennium Copyright Act (DMCA)<sup>274</sup> is a classic example of delegation of power from the government to online intermediaries that effectively act like public administrative agencies.<sup>275</sup> Similarly, the governance of the Internet’s Domain Name System (DNS) is in the hands of the Internet Corporation for Assigned Names and Numbers (ICANN), a private not-for-profit corporation established by the U.S. government and vested with all power over the DNS.<sup>276</sup> As David Post and Michael Fromkin have indicated, this has worked as a way to circumvent constitutional limitations and has left ICANN with largely unreviewable power.<sup>277</sup> Another example is Section 230 of the Communications Decency Act (CDA).<sup>278</sup> CDA § 230 has been hailed as “one of the strongest bulwarks for free expression” today.<sup>279</sup> Such statements tend to focus on CDA § 230(c)(1),<sup>280</sup> which grants online service providers immunity from liability for third-party content,<sup>281</sup> thereby removing one possible

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273. Niva Elkin-Koren & Eldar Haber, *Governance by Proxy*, 82 BROOK. L. REV. 105 (2016).

274. Digital Millennium Copyright Act, 17 U.S.C. § 1201 (2012).

275. Maayan Perel & Niva Elkin-Koren, *Accountability in Algorithmic Copyright Enforcement*, 19 STAN. TECH. L. REV. 473 (2016).

276. See, e.g., David G. Post, *Governing Cyberspace, or Where is James Madison When We Need Him?* (1999), <http://www.temple.edu/lawschool/dpost/icann/comment1.html> (last visited Jan. 6, 2018); A. Michael Fromkin, *Wrong Turn in Cyberspace: Using ICANN to Route around the APA and the Constitution*, 50 DUKE L.J. 17 (2000).

277. *Id.*

278. 47 U.S.C. § 230 (2012).

279. Ammori, *supra* note 118, at 2290.

280. CDA § 230(c)(1) provides that “[n]o provider or user of an interactive computer service shall be treated as the publisher or speaker of any information provided by another content provider.”

281. The exact scope of immunity afforded to online service providers under CDA § 230(c)(1) has not been fully determined by U.S. federal courts. Compare the broad approach adopted in *Zeran v. Am. Online, Inc.*, 129 F.3d 327, 330 (4th Cir. 1997), *Johnson v. Arden*, 614 F.3d 785, 791 (8th Cir. 2010), and *Almeda v. Amazon.com, Inc.*, 456 F.3d 1316, 1321 (11th Cir. 2006), with the narrower

incentive to interfere with user-generated content that may defame or otherwise tortiously interfere with the rights of another user.<sup>282</sup> Of course, CDA § 230(c)(1) does not prevent online intermediaries from adopting a stricter policy toward undesirable speech, even if such intermediaries could carry it without fear of liability.<sup>283</sup> In fact, research shows that online intermediaries have plenty of business and other incentives to voluntarily police speech, and they often do.<sup>284</sup> Moreover, CDA § 230(c)(2), which is often overlooked, generally immunizes online intermediaries from liability for any voluntary decision taken by them in “good faith” to filter “objectionable” content, regardless of whether such content is constitutionally protected.<sup>285</sup> Consequently, while online intermediaries reserve content-filtering discretion for themselves in their ToS, CDA § 230(c)(2) actively delegates to them the authority to regulate online speech, without imposing any significant

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approach in *City of Chicago v. StubHub!, Inc.*, 624 F.3d 363, 366 (7th Cir. 2010), and *Barnes v. Yahoo!, Inc.*, 570 F.3d 1096, 1100 (9th Cir. 2009). It is clear, however, that CDA § 230(c)(1) protects online intermediaries from claims of defamation and a range of other civil torts.

282. Notably, in Europe, the scope of immunity granted to online intermediaries seems to be narrower. In a recent judgment rendered by the European Court of Human Rights, it was held that Contracting States could impose liability on an online news portal for comments posted to its site by third parties, although the portal lacked knowledge of the unlawful nature of the comments and promptly removed them when requested to do so. *See Delfi AS v. Estonia*, 2015-II EUR. CT. H.R. 319, 322-23 (2015), <http://hudoc.echr.coe.int/eng?i=001-155105>. Recent U.S. legislation known as FOSTA-SESTA aims to create an exception to CDA § 230(c)(1), the stated purpose of which is to exclude enforcement of sex trafficking laws from its immunity. *See Allow States and Victims to Fight Online Sex Trafficking Act of 2017*, Pub. L. No. 115-164, 132 Stat. 1253 (2018); *Stop Enabling Sex Traffickers Act of 2017*, S. 1693, 115th Cong. (as reported by S. Comm. on Commerce, Sci., and Transp., Jan. 10, 2018)

283. *See Ammori*, *supra* note 118, at 2287-88.

284. *See, e.g.*, David. S. Ardia, *Free Speech Savior or Shield for Scoundrels: An Empirical Study of Intermediary Immunity Under Section 230 of the Communications Decency Act*, 43 LOY. L.A. L. REV. 373 (2010); Julie Adler, *The Public's Burden in a Digital Age: Pressures on Intermediaries and the Privatization of Internet Censorship*, 20 J.L. & POL'Y 231, 244-46 (2011). As also indicated by Adler, self-censorship by intermediaries, beyond that which is required by law, is also common under the DMCA. *Id.* at 246-48.

285. *See, e.g.*, Yemini, *supra* note 52, at ¶ 23; Eric Goldman, *Online User Account Termination and 47 U.S.C. § 230 (c)(2)*, 2 U.C. IRVINE L. REV. 659 (2012). As noted by Goldman, CDA § 230(c)(2) most probably also provides online intermediaries with immunity from users' claims against account terminations.

corresponding responsibility for their actions, and provides a formal statutory incentive to filter constitutional content.<sup>286</sup>

C. *Multiple Modes of Interference*

The third dimension of pressure on liberty in the digital ecosystem stems from the fact that interference with online speech takes on different, often undetectable shapes, which do not necessarily conform to classic censorship. The relationship between users and online intermediaries is one of asymmetrical power, in which the intermediary is more powerful than the user, resulting in an asymmetrical exercise of influence or control by the power holder (the intermediary) over the power endurer (the user).<sup>287</sup> One type of power relation is *force*, in which the power holder strips the power endurer from the ability to act in a certain way; another is *coercion*, in which the power endurer's compliance is achieved by the threat of deprivation.<sup>288</sup> In the context of freedom of expression, force and coercion manifest in *ex ante* censorship and threats of *ex post* punishment, respectively. As analyzed above, both types of power relations also exist in the digital ecosystem (e.g. through restrictions on "objectionable" speech, threats of account termination, and so on).

However, in addition to force and coercion, scholars have identified other types of power relations, including *influence* (when the power holder causes the power endurer to change her course of action without an overt threat of deprivation);<sup>289</sup> *authority* (when the power endurer complies because she recognizes that the power holder's command is reasonable in terms of her own values);<sup>290</sup>

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286. Nicholas Conlon has argued that CDA § 230(c)(2) was originally intended to incentivize the dissemination of technologies that would enhance users' own ability to control the material they receive. Clearly, however, the statute, as applied by the courts, has been broadly interpreted to encompass filtering that does not comport with users' preferences. See Nicholas Conlon, *Freedom to Filter Versus User Control: Limiting the Scope of § 230(c)(2) Immunity*, 2014 J.L. TECH. & POL'Y 105 (2014). See also, e.g., Jonathan Zittrain, *A History of Online Gatekeeping*, 19 HARV. J.L. & TECH. 253, 262 (2006) ("Without requiring filtering by gatekeepers, the CDA expressed a desire to encourage it.").

287. Cf. Philip Brey, *The Technological Construction of Social Power*, 22 SOC. EPISTEMOLOGY 71, 77 (2008).

288. See generally, e.g., PETER BACHRACH & MORTON S. BARATZ, *POWER AND POVERTY* (1970); STEVEN LUKES, *POWER: A RADICAL VIEW* (2d ed. 2005).

289. See, e.g., LUKES, *supra* note 288, at 21.

290. *Id.*

*seduction* (the exercise of power through positive incentives);<sup>291</sup> and *manipulation* (when the power holder induces people to act in a certain way by performing actions behind their backs, withholding information from them, or deceiving them in some way).<sup>292</sup> Seduction and manipulation, in particular, play key roles in our current digital ecosystem. Although these types of power relations have always been part of our system of free expression,<sup>293</sup> in the digital ecosystem, they have become, as demonstrated in the preceding analysis, pervasive and routine.<sup>294</sup> Moreover, the business model of many of the major online intermediaries rests on what can be described as a synergy of seduction at the “front end” and manipulation at the “back end.” Online intermediaries, such as Google and Facebook, offer appealing and free services, including seemingly indispensable ones, that present themselves as serving individual users’ interests. Meanwhile, to serve their own economic interests, such intermediaries employ surveillance tools and methods of controlling users’ speech environment that remain largely invisible.<sup>295</sup>

An astonishing peek into the manipulative power of online intermediaries was made possible through a couple of academic articles that documented experiments conducted on Facebook’s platform at Facebook’s initiative. One article, published in *Nature* in 2012, reported the results of a randomized controlled trial of political mobilization messages delivered to 61 million Facebook users

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291. See, e.g., Bertram H. Raven, *The Bases of Power: Origins and Recent Developments*, 49 J. SOC. ISSUES 227 (1993); Brey, *supra* note 287, at 78-79.

292. See, e.g., Brey, *supra* note 287, at 80.

293. See, e.g., David A. Strauss, *Persuasion, Autonomy, and Freedom of Expression*, 91 COLUM. L. REV. 334 (1991) (discussing the persuasion principle, according to which the government may not suppress speech, including by way of manipulation, on the ground that the speech may persuade people to do something that the government considers harmful); JEROME BARRON, FREEDOM OF THE PRESS FOR WHOM? (1973) (discussing the ways in which mass media manipulate public opinion); MARK G. YUDOF, WHEN GOVERNMENT SPEAKS (1983) (arguing that the government’s power to use government speech in order to manipulate consent should be restricted).

294. See generally, e.g., Zeynep Tufekci, *Algorithmic Harms Beyond Facebook and Google: Emergent Challenges of Computational Agency*, 13 COLO. TECH. L.J. 203 (2015).

295. Cf., e.g., Lauren Murphy, *Terms of Servitude 20* (2015) (Honors thesis, Australian National University College of Law) (on file with the Australian National University Library system); Roberto Pizzato, *Online Behaviours and Facebook Narrative in the Post-Snowden Era 17-18* (June 2015) (Master’s thesis, University of Amsterdam), <http://dare.uva.nl/document/606338>.

during the 2010 U.S. congressional elections.<sup>296</sup> The results showed that the messages, prompting users to vote by showing them that their friends had already voted, directly influenced millions of people, who would not otherwise go to the polls, to cast a vote.<sup>297</sup> While the results of this specific experiment may have been commendable, the idea that Facebook could have the power to influence users' political behavior in such a way is problematic. As Jonathan Zittrain has observed, nothing would prevent Facebook in a future election from manipulating its algorithm not only to mobilize people to vote, but also to vote for a specific candidate by causing similar mobilization messages to appear on the News Feeds of users who are members of politically-identified Facebook groups.<sup>298</sup> Notably, the basis of the manipulation in Facebook's experiment lies in the fact that it did not seek its users' consent for their participation in the trial. Facebook seems to have treated this experiment as no different from any other change it makes to its News Feed algorithm. This type of conduct led to public outcry when it was revealed that, in another experiment, Facebook (together with Cornell researchers) attempted to affect the emotions of approximately 700,000 people through the display of positive or negative posts on their News Feeds.<sup>299</sup> The results showed that their attempt succeeded.<sup>300</sup>

As Cass Sunstein recently observed, following Joseph Raz and others, "[t]he most obvious problem with manipulation is that it can insult both autonomy and dignity."<sup>301</sup> Autonomy requires a meaningful variety of choices, information about the state of the world, the capacity to evaluate this information, and the ability to choose.<sup>302</sup> If an online intermediary controls information flows in ways that shape and constrain users' choices, in a process lacking transparency which users cannot avoid, then users' autonomy is

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296. Robert M. Bond et al., *A 61-Million-Person Experiment in Social Influence and Political Mobilization*, 489 NATURE 295 (2012).

297. *Id.*

298. See Jonathan Zittrain, Response, *Engineering an Election: Digital Gerrymandering Poses a Threat to Democracy*, 127 HARV. L. REV. F. 335 (2014).

299. See, e.g., Meyer, *supra* note 249, at 276.

300. See Adam D. I. Kramer, Jamie E. Guillory & Jeffrey T. Hancock, *Experimental Evidence of Massive-Scale Emotional Contagion Through Social Networks*, 111 PROC. NAT'L ACAD. SCI. U.S. 8788 (2014).

301. Cass R. Sunstein, *Fifty Shades of Manipulation*, 1 J. MARKETING BEHAV. 213, 226 (2015). See also, e.g., JOSEPH RAZ, THE MORALITY OF FREEDOM 377-79 (1986).

302. See RAZ, *supra* note 301, at 370.

limited.<sup>303</sup> From the perspective of dignity, manipulation can be humiliating; it does not treat people with respect.<sup>304</sup> Manipulation also raises concerns about democratic values.<sup>305</sup> These concerns recall the classic critiques of mass media,<sup>306</sup> but may be even greater. While concerns with respect to twentieth-century mass media centered on a general (and relatively vague) fear of its ability to manipulate public opinion, manipulation by online intermediaries can be both large-scale *and* highly-personalized.

#### D. *New-Media Concentration*

Twentieth-century mass media organizations, by the nature of their business, transmitted their own speech and were powerful speakers.<sup>307</sup> Their threat to free expression laid not in their ability to directly interfere with others' speech, but in their concentrated control over the means of expression, which was believed to adversely affect the quality of public debate.<sup>308</sup> In the 2010s, on the other hand, the architecture of our speech environment features an abundance of content and speakers. However, as analyzed above, these are layered on top of a small number of intermediaries,<sup>309</sup> which, by the nature of their business, stand between potential speakers and their potential audiences.<sup>310</sup> Thus, contrary to conventional wisdom, the problem of media concentration has not disappeared with the advent of the Internet, but has rather changed character. As Gregory Magarian has argued, "the same economic

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303. See Bracha & Pasquale, *supra* note 25, at 1178.

304. See Sunstein, *supra* note 301, at 226.

305. See, e.g., Bracha & Pasquale, *supra* note 25, at 1171-73.

306. See sources cited *supra* note 293.

307. See Tutt, *supra* note 225, at 236.

308. See *supra* note 47 and accompanying text.

309. See also, e.g., Wu, *supra* note 123, at 94.

310. The only pre-Internet media entities, which bear slight resemblance to what online intermediaries do today, are cable companies, which as part of their program offerings carried content packaged by others. Although the Supreme Court acknowledged that cable companies had editorial discretion protected under the First Amendment to choose the channels offered over their platforms, it nevertheless upheld government regulations ("must carry" rules) which required cable companies to carry certain channels. In doing so, the Court acknowledged that private cable operators' position as "gatekeepers" of public access to information justifies a more lenient standard in reviewing regulations of their programming decisions. See *Turner Broad. Sys. v. FCC*, 512 U.S. 622, 657 (1994) ("The First Amendment's command that government not impede the freedom of speech does not disable the government from taking steps to ensure that private interests not restrict, through physical control of a critical pathway of communication, the free flow of information and ideas.").

factors that have produced concentration and undermined diversity in traditional mass media have carried over in substantial measure to cyberspace.”<sup>311</sup>

A recent comprehensive study of media concentration around the world has found that Internet media, such as online news, search, and ISPs, are more concentrated than twentieth-century audiovisual media, such as film, radio, broadcast TV, and cable TV.<sup>312</sup> The ISP market is highly concentrated worldwide, with only a handful of players in even the most competitive markets;<sup>313</sup> the search engine industry is the most concentrated industry of all, due to Google’s extraordinary dominance in most countries;<sup>314</sup> and various other market segments have their own dominant players—Amazon, eBay, Microsoft, Facebook, YouTube (owned by Google’s parent company, Alphabet), Apple, etc.<sup>315</sup> Since most content, including news, is accessed through or provided by these highly-dominant online intermediaries,<sup>316</sup> new-media concentration continues to be a pressing issue and correlates with the other dimensions undermining liberty in the digital ecosystem discussed above.

Some commentators have posited that market forces could provide a solution to the problem of new-media concentration.<sup>317</sup> The fundamental problem with this approach is that it relies on consumer preferences, while the normative concerns associated with new-media concentration only partially overlap with such

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311. Gregory P. Magarian, *Market Triumphalism, Electoral Pathologies, and the Abiding Wisdom of First Amendment Access Rights*, 35 HOFSTRA L. REV. 1373, 1386 (2007).

312. ELI M. NOAM & THE INT’L MEDIA CONCENTRATION COLLABORATION, WHO OWNS THE WORLD’S MEDIA? 1314-22 (2016).

313. *Id.* at 1091-94.

314. In twenty out of the thirty countries surveyed in the study, Google holds a market share of 90% or more. In India, Canada, and Switzerland, it has a market share of more than 80%. In the U.S., it holds 68.4% of the market. In the handful of countries where Google is not the dominant search engine, the largest search engine by volume tends to be the one based in that country, and they too hold huge market shares, such as Baidu in China (78.6%), NHN in South Korea (68.8%) and Yandex in Russia (47.1%). *See id.* at 1095-99.

315. *Id.* at 1315.

316. *See, e.g.*, Philip M. Napoli, *Social Media and the Public Interest: Governance of News Platforms in the Realm of Individual and Algorithmic Gatekeepers*, 39 TELECOMM. POL’Y 751, 752 (2015) (noting that social media platforms, such as Facebook and Twitter, have emerged (alongside Google) “as some of the most significant new media organizations of the 21st century”).

317. In the context of the search market, see, for example, Gasser, *supra* note 196, at 224; Goldman, *supra* note 180, at 196-98.

preferences and cannot be fully cast in economic terms.<sup>318</sup> The economic argument assumes that users would respond to an online intermediary's abuse of its power to control speech by migrating to a competing platform, and that such competing platforms would develop to satisfy this demand. Of course, users would need to be aware of such abuse, which, as discussed above, is far from guaranteed considering intermediaries' lack of transparency and the ubiquity of online manipulation. But even assuming the existence of such knowledge, the economic argument simply cannot fully address the concerns for freedom of expression that stem from the problem of new-media concentration, such as its potential adverse effect on democratic discourse. Most importantly, the economic argument, by its very nature, aggregates across individual lives in a utilitarian mode of analysis.<sup>319</sup> This mode of analysis is not suited for dealing with rights-based concerns that treat each individual as a separate unit of moral accounting.<sup>320</sup> Accordingly, the economic argument cannot capture the problem with Google excluding a specific content provider from its page rankings or with Facebook censoring a particular person (unless such actions affect overall user preferences).

In any event, even from a purely economic perspective, the problem of new-media concentration is unlikely to fix itself. The economics of digital media lead to two opposite trends: on the one hand, digital media provides greater expressive capacity for individuals and plays a positive role in niche markets of the "long tail," where entry has become easier, scale is low, and competition from large players is not a major factor.<sup>321</sup> However, off the "long tail"—at the center of media activities, infrastructure, and central nodes—the Internet fosters winner-take-all markets.<sup>322</sup> On the supply side, the Internet's underlying economics feature high fixed costs and low marginal costs. Platform media, such as telecommunications networks, have always been capital-intensive, but new media is even more capital-intensive than old media. In particular, the ratio of

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318. See, e.g., Introna & Nissenbaum, *supra* note 167, at 177-78; Bracha & Pasquale, *supra* note 25, at 1185-86.

319. Cf. Jeremy Waldron, *From Authors to Copiers: Individual Rights and Social Values in Intellectual Property*, 68 CHI-KENT L. REV. 841, 857 (1993).

320. Cf., e.g., Yemini, *supra* note 52, at ¶¶ 46-49; NUSSBAUM, *supra* note 34, 55-56 (2011); Philip M. Napoli & Sheea T. Sybblis, *Access to Audiences as a First Amendment Right: Its Relevance and Implications for Electronic Media Policy*, 12 VA. J.L. & TECH. 1, 2 (2007).

321. NOAM & THE INT'L MEDIA CONCENTRATION COLLABORATION, *supra* note 312, at 1339.

322. *Id.* at 9.

capital costs to marginal costs is higher.<sup>323</sup> Consequently, new media's scale economies are greater, and their market concentration is greater. On the demand side, the economics of the Internet are characterized by strong network effects, whereby the value of connecting to a network depends on the number of other people already connected, and high switching costs, leading to a strong lock-in effect (consider, for example, trying to switch from Facebook to another social network).<sup>324</sup> This creates high barriers for entry into the market. Since these factors will remain, the pressures toward rising concentration are an economic reality, and the Internet, far from being the solution to media concentration, has become part of the problem.<sup>325</sup>

#### E. Lack of Anonymity

In the early days of commercial Internet, legal scholars grappled with a new problem: how to cope with a medium in which complete anonymity thrives.<sup>326</sup> Two decades later, it seems that the Internet "is the place where anonymity dies."<sup>327</sup> The main reason for this is the unprecedented technical ability for surveillance that digital technologies provide. The same system that provides increased expressive capacities is also the most efficient tool ever built for tracking people and recording their actions.<sup>328</sup> The archetypal

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323. *Id.* at 10.

324. *Id.* at 10-11. *See also, e.g.*, Adam Andrzejuk, *Economic Strategies Used by Companies Dealing with Information Goods, Based on Software Example*, 5 INFO. SYS. MGMT. 161, 165-66 (2016).

325. As Noam indicates, in terms of potential options, there is seemingly much greater media pluralism than before (since, in principle, anyone can, for example, navigate to a website of her interest), but in terms of the actual choices exercised, there is often much greater concentration than before (since, for example, in practice, one depends on Google to reach a website of her interest). NOAM & THE INT'L MEDIA CONCENTRATION COLLABORATION, *supra* note 312, at 9.

326. *See, e.g.*, Trotter Hardy, *The Proper Legal Regime for 'Cyberspace'*, 55 U. PITT. L. REV. 993, 1110-12 (1994); George P. Long, III, Comment, *Who Are You? Identity and Anonymity in Cyberspace*, 55 U. PITT. L. REV. 1177, 1179 (1994); Anne W. Branscomb, *Anonymity, Autonomy, and Accountability: Challenges to the First Amendment in Cyberspaces*, 104 YALE L.J. 1639 (1995); Michael Froomkin, *Flood Control in the Information Ocean: Living with Anonymity, Digital Cash, and Distributed Databases*, 15 PITT. J.L. & COMM. 395 (1996); Noah Levine, *Establishing Legal Accountability for Anonymous Communication in Cyberspace*, 96 COLUM. L. REV. 1526 (1996).

327. Brian Stetler, *Upending Anonymity, These Days the Web Unmasks Everyone*, N.Y. TIMES, June 21, 2011, at A1.

328. *See generally, e.g.*, Neil Richards, *The Dangers of Surveillance*, 126 HARV. L. REV. 1934 (2013).

examples of using digital surveillance involve states (both democratic and authoritarian) monitoring citizens' and non-citizens' online communication for security and political reasons: the U.S. government's monumental bulk telephony metadata collection program, known as PRISM,<sup>329</sup> the so-called Great Firewall of China,<sup>330</sup> the use of digital surveillance techniques by the Iranian government during the "Green Revolution" and by other governments during the "Arab Spring;"<sup>331</sup> and so on.<sup>332</sup>

However, a host of other converging developments also pushes toward the extinction of anonymity in the digital ecosystem. There is an increasingly hostile climate toward online anonymity due to its contribution to harassment, cyber-bullying, defamation, and other legal wrongs in the commission of which anonymity can be exploited as a shield from accountability.<sup>333</sup> Copyright holders push

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329. PRISM allowed the National Security Agency (NSA), by virtue of a top-secret, sweeping Foreign Intelligence Surveillance Court order, to access ISPs' and other entities' records ("metadata") on the web activity of millions of users. *See, e.g.*, Glenn Greenwald & Ewen MacAskill, *NSA Prism Taps in User Data of Apple, Google and Others*, *GUARDIAN* (June 7, 2013, 3:23 PM), <http://www.guardian.co.uk/world/2013/jun/06/us-tech-giants-nsa-data>; David Streitfeld & Quentin Hardy, *Data-Driven Tech Industry Is Shaken by Online Privacy Fears*, *N.Y. TIMES*, June 10, 2013, at B1.

330. *See, e.g.*, Kristina M. Reed, *From the Great Firewall of China to the Berlin Firewall: The Cost of Content Regulation on Internet Commerce*, 12 *TRANSNAT'L L.* 543 (2000); Ronald J. Deibert, *Dark Guests and Great Firewalls: The Internet and Chinese Security Policy*, 58 *J. SOC. STUD.* 143 (2002); Roya Ensafi et al., *Analyzing the Great Firewall of China over Space and Time*, *PROC. ON PRIVACY ENHANCING TECHS.*, Apr. 2015, at 61.

331. *See, e.g.*, Alex Comminos, *E-Revolutions and Cyber Crackdowns: User Generated Content and Social Networking in Protests in MENA and Beyond*, in *GLOBAL INFORMATION SOCIETY WATCH 2011: INTERNET RIGHTS AND DEMOCRATIZATION* 29 (2011) (noting that governments were able to take advantage of advanced internet filters to block content during the Arab Spring uprisings and that social media platforms were used by security and intelligence agencies to identify and locate activists and protesters).

332. Notably, surveillance methods need not necessarily be all that sophisticated in order to yield the results sought by repressive regimes. Social media, for example, has been used to identify dissenters and silence opposition. As noted, for example, by Morozov, "in the past, the KGB resorted to torture to learn of connections between activists; today, they simply need to get on Facebook." *EVGENY MOROZOV, THE NET DELUSION* 156 (2011).

333. *See, e.g.*, Jason M. Shepard & Genelle Belmas, *Anonymity, Disclosure and First Amendment Balancing in the Internet Era: Developments in Libel, Copyright and Election Speech*, 15 *YALE J.L. & TECH.* 92, 95-97 (2012); Robert Bodle, *The Ethics of Online Anonymity or Zuckerberg vs. "Moot"*, 43 *ACM SIGCAS COMPUTERS & SOC'Y* 22 (2013); Rick A. Waltman, *Veiling Cyberbullies: First Amendment Protection for Anonymity Per Se Strengthens the Voice of Online Predators*, 36 *U. LA VERNE L. REV.* 145 (2014).

for legally mandated tracking of infringing users through intermediary liability and other means.<sup>334</sup> Law enforcement agencies ubiquitously use digital technologies such as GPS-enabled surveillance and face recognition technologies (FRT) to track down suspects.<sup>335</sup> Perhaps most important, a powerful ad-funded Internet industry tracks, aggregates, and disseminates enormous volumes of personal information; shapes an online environment that prohibits anonymity by design; and reinforces negative attitudes toward non-identifiable communication.<sup>336</sup>

It is practically impossible to follow all types of digital technologies and processes, i.e. Big Data tools,<sup>337</sup> which threaten anonymity by tracking online and offline personal activities, aggregating massive amounts of metadata, and analyzing and transferring the aggregated data for profit. Some of the technologies that gather personal information include, *inter alia*, digital transaction platforms, social plugins and networks, HTTP cookies, supercookies, search engines, operating systems, browsers, mobile applications and devices, Global Positioning Systems, cloud computing services, FRT, drones, surveillance cameras, optical head-mounted display, Internet of Things, and others.<sup>338</sup> The trackers of personal information include not only online retailers and service providers, but also what Amitai Etzioni has called “privacy merchants,” i.e. corporations whose main line of business is to shadow Internet users in order to gather and sell information about

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334. See, e.g., Shepard & Belmas, *supra* note 333, at 115-23; Joshua M. Dickman, *Anonymity and the Demands of Civil Procedure in Music Downloading Lawsuits*, 82 TUL. L. REV. 1049 (2008); Jeffrey M. Levinsohn, *Protecting Copyright at the Expense of Internet Anonymity: The Constitutionality of Forced Identity Disclosure under 512(h) of the Digital Millennium Copyright Act*, 23 TEMP. ENVTL. L. & TECH. J. 243 (2004).

335. See, e.g., Kimberly N. Brown, *Anonymity, Faceprints, and the Constitution*, 21 GEO. MASON L. REV. 409, 426-27 (2014); Elizabeth E. Joh, *The New Surveillance Automated Suspicion, Big Data, and Policing*, 10 HARV. L. & POL'Y REV. 15, 15-16 (2016).

336. See generally, e.g., VIKTOR MAYER-SCHÖNBERGER & KENNETH CUKIER, *BIG DATA: A REVOLUTION THAT WILL TRANSFORM HOW WE LIVE, WORK, AND THINK* (2013); Bodle, *supra* note 333; Harry E. Pence, *Will Big Data Mean the End of Privacy?*, 44 J. EDUC. TECH. SYS. 253 (2015); FRANK PASQUALE, *THE BLACK BOX SOCIETY* (2015).

337. For a detailed definition of Big Data, see, for example, Andrea De Mauro, Marco Greco & Michele Grimaldi, *What is Big Data? A Consensual Definition and a Review of Key Research Topics*, 1644 AIP CONF. PROC. 97 (2015); Harry E. Pence, *What Is Big Data and Why Is It Important?*, 43 J. EDUC. TECH. SYS. 159 (2014).

338. See, e.g., Bodle, *supra* note 333, at 22; Pence, *supra* note 336; Gerlitz & Helmond, *supra* note 12, at 1348.

them to whomever pays the required price, including law enforcement agencies.<sup>339</sup> The information collected may include names, addresses, other contact information, gender, race, age, occupation, hobbies, education, economic status, health status, personal habits and preferences, political leanings, and even information about “life events”, such as marriage or divorce. When combined with Big Data tools such as Hadoop software, the aggregated information is used to create a personal profile in order to identify and influence personal habits, attitudes, and behavior.<sup>340</sup> Notably, surveilling entities often claim that when datasets are shared by them with other entities, personal information is removed to make them anonymous.<sup>341</sup> As several studies have demonstrated, however, the combination of Big Data tools and extensive information available online makes it unrealistic to claim that any sharing of data is truly anonymous.<sup>342</sup>

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339. Amitai Etzioni, *The Privacy Merchants: What Is to Be Done?*, 14 J. CONST. L. 929, 929-930 (2012). See also, e.g., Chris J. Hoofnagle, *Big Brother's Little Helpers: How ChoicePoint and Other Commercial Data Brokers Collect and Package Your Data for Law Enforcement*, 29 N.C. J. INT'L L. & COM. REG. 595, 595-596 (2003); DANIEL J. SOLOVE, *THE DIGITAL PERSON* 165, 169 (2004).

340. See, e.g., Pence, *supra* note 336, at 258; Richards, *supra* note 328, at 1939-40; Neil M. Richards & Jonathan H. King, *Big Data Ethics*, 49 WAKE FOREST L. REV. 393, 422-26 (2014); Etzioni, *supra* note 339, at 929-34.

341. See, e.g., *Data Policy*, FACEBOOK, <https://www.facebook.com/about/privacy/#> (last visited Apr. 18, 2018) (stating that Facebook does not share with advertisers “information that personally identifies you (information such as your name or email address that by itself can be used to contact you or identifies who you are) unless you give us permission.”); Google’s Privacy Policy, which states, *inter alia*, that Google “may share non-personally identifiable information publicly.” *Welcome To The Google Privacy Policy*, <https://www.google.com/intl/en/policies/privacy/> (last visited Jan. 6, 2018).

342. See, e.g., Arvid Narayanan & Vitaly Shmatikov, *Robust De-anonymization of Large Sparse Datasets*, PROC. 2008 IEEE SYMP. ON SECURITY AND PRIVACY 111 (applying a de-anonymization methodology to the Netflix Prize dataset and showing that political preferences and other potentially sensitive information of individual subscribers can be easily derived from that supposedly anonymous dataset); Arvid Narayanan & Vitaly Shmatikov, *De-anonymizing Social Networks*, PROC. 2009 30TH IEEE SYMP. ON SECURITY AND PRIVACY 173 (showing that a third of the users of both Twitter and Flickr can be re-identified in the anonymous Twitter graph with only a 12% error rate); Yves-Alexandre de Montjoye et al., *Unique in the Shopping mall: On the Reidentifiability of Credit Card Metadata*, 347 SCIENCE 536 (2015) (showing that four data points are enough to uniquely identify 90% of the individuals in three months of “anonymous” credit card records for 1.1 million people); Paul Ohm, *Broken Promises of Privacy: Responding to the Surprising Failure of Anonymization*, 57 UCLA L. REV. 1701, 1703-04 (2010) (concluding that, because of advances in re-identification science, “[d]ata can be either useful or perfectly anonymous, but never both”).

Moreover, as noted above, the same Internet companies that benefit from aggregating and analyzing personal information have a market incentive to discourage online anonymity, both through design and by influencing social norms. This market incentive coincides with state security interests in reducing the value and necessity of online anonymity.<sup>343</sup> The strongest advocate of this anti-anonymity culture is probably Facebook, which expressly prohibits anonymity in its Statement of Rights and Responsibilities, under which users are expected to declare that they will not provide any false personal information on Facebook, create an account for anyone other than themselves without permission, or create more than one personal account.<sup>344</sup> The justification for this prohibition, as advocated by Mark Zuckerberg himself, is that “having two identities” online is “an example of a lack of integrity.”<sup>345</sup> Zuckerberg has also supplemented this argument with a supposedly descriptive statement that privacy is “no longer a social norm.”<sup>346</sup> Google’s CEO, Eric Schmidt, has similarly dismissed the importance of privacy.<sup>347</sup> In reality, however, such statements are more prescriptive than descriptive, as Internet giants like Google and Facebook play an active role in shaping a culture that legitimizes the erosion of privacy, in general, and anonymity, in particular.<sup>348</sup>

An environment which does not leave room for anonymous (as well as pseudonymous<sup>349</sup>) action and communication undermines

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343. See, e.g., Bodle, *supra* note 333, at 22-23.

344. See *Terms of Service*, FACEBOOK, *supra* note 219, at § 3(1).

345. DAVID KIRKPATRICK, *THE FACEBOOK EFFECT* 199 (2010) (quoting a 2009 interview of Mark Zuckerberg).

346. See, e.g., Bobbie Johnson, *Privacy No Longer a Social Norm, Says Facebook Founder*, *GUARDIAN* (Jan. 11, 2010, 1:58 AM), <https://www.theguardian.com/technology/2010/jan/11/facebook-privacy> (last visited Jan. 6, 2018).

347. See Richard Esguerra, *Google CEO Eric Schmidt Dismisses the Importance of Privacy*, *ELECTRONIC FRONTIER FOUNDATION* (Dec. 10, 2009), <https://www EFF.org/deeplinks/2009/12/google-ceo-eric-schmidt-dismisses-privacy>.

348. See, e.g., Danah Boyd & Alice E. Marwick, *Social Privacy in Networked Publics: Teens’ Attitudes, Practices, and Strategies*, *PROC. DECADE INTERNET TIME* 1 (2011), [http://papers.ssrn.com/sol3/Papers.cfm?abstract\\_id=1925128](http://papers.ssrn.com/sol3/Papers.cfm?abstract_id=1925128); Etzioni, *supra* note 339, at 938-40; Grant Blank, Gillian Bolsover & Elizabeth Dubois, *A New Privacy Paradox: Young people and privacy on social network sites* (Oxford Internet Institute and Global Cyber Security Capacity Centre, Working Paper, April 2014), <http://www.oxfordmartin.ox.ac.uk/downloads/A%20New%20Privacy%20Paradox%20April%202014.pdf>.

349. In one notable case, Facebook’s policy of prohibiting the provision of any “false” personal information led to the suspension of accounts belonging to well-known San Francisco drag queens, because they were using their drag names, which Facebook did not consider “real.” Eventually, after those individuals led

not only privacy, but also freedom of expression. The value of anonymity, as noted by Nissenbaum, lies in the possibility of acting or participating while remaining out of reach.<sup>350</sup> Although the possibility of being unreachable does entail a potential “dark side,”<sup>351</sup> its importance for a system of free expression cannot be underestimated for clear reasons, which have long been recognized by free speech theory and doctrine. Anonymity has been tied to speakers’ autonomy over the content of their speech, including how they present their identities to others. It may also encourage expression in circumstances where individuals would not otherwise participate in public discussion for fear of being ridiculed, harassed, or retaliated against. Finally, it supports such valuable institutions as whistle-blowing, voting, and political engagement.<sup>352</sup>

While the right to privacy and the right to freedom of expression have often been treated and analyzed as conflicting values (which they sometimes are),<sup>353</sup> the realities of the digital ecosystem actually highlight the extent to which these values are interrelated, at least with regard to anonymity, which plays a role in both.<sup>354</sup> Protecting

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further protests and convinced some Facebook users to switch to Ello, a social media platform without a “real-name policy,” Facebook apologized, but without making any policy changes. Instead, Facebook’s Chief Product Officer, Chris Cox, announced that drag queens’ use of their drag name in their Facebook accounts was actually in line with Facebook’s policy that “everyone on Facebook uses the authentic name they use in real life.” See Vauhini Vara, *Who’s Real Enough for Facebook?*, NEW YORKER (Oct. 2, 2014), <http://www.newyorker.com/business/currency/whos-real-enough-facebook>.

350. Helen Nissenbaum, *The Meaning of Anonymity in an Information Age*, 15 INFO. SOC’Y 141, 142 (1999).

351. See generally, e.g., Waltman, *supra* note 333; Frederick Schauer, *Anonymity and Authority*, 27 J.L. & POL’Y 597 (2012).

352. See generally, e.g., Brown, *supra* note 335, at 412-27; Shepard & Belmas, *supra* note 333, at 94-105.

353. See, e.g., Peter B. Edelman, *Free Press v. Privacy: Haunted by the Ghost of Justice Black*, 68 TEX. L. REV. 1195 (1990); Eugene Volokh, *Freedom of Speech and Information Privacy: The Troubling Implications of a Right to Stop People from Speaking about You*, 52 STAN. L. REV. 1049 (2000); Neil M. Richards, *Reconciling Data Privacy and the First Amendment*, 52 UCLA L. REV. 1149 (2004). A potentially genuine conflict between freedom of expression and privacy in the digital ecosystem is reflected, for example, in the May 13, 2014 ruling by the Court of Justice of the European Union (CJEU), which recognized users’ rights to have search-engine results relating to them be delisted (i.e. the “right to be forgotten”). See Case C-131/12, *Google Spain SL v. Agencia Española de Protección de Datos*, 2014 E.C.R. 317, ¶ 100, <http://curia.europa.eu/juris/document/document.jsf?text=&docid=152065&pageIndex=0&doclang=en&mode=lst&dir=&occ=first&part=1&cid=3636998>.

354. Cf. e.g., Nicole B. Cásarez, *The Synergy of Privacy and Speech*, 18 J. CONST. L. 813 (2016); Ronald J. Krotoszynski, Jr., *Bringing Meiklejohn to Privacy:*

anonymity in the digital ecosystem requires withholding the information that enables reaching a person through surveillance technologies.<sup>355</sup> This, as stated by the UN Human Rights Council, makes respect for privacy “an essential requirement for the realization of the right to freedom of expression.”<sup>356</sup> Unfettered surveillance, on the other hand, creates a chilling effect on speech, not only in the simplest sense of stopping people from speaking when they know they are being watched, but also in much broader and deeper senses. Empirical research shows that surveillance impedes the development of minority ideas, discourages individuals with unformed ideas from deviating from majority political views, encourages individuals to conform to perceived norms and others’ expectations, and negatively affects online activities, including access to information and knowledge online.<sup>357</sup>

Current constitutional doctrine does not generally deem pervasive digital surveillance a violation of the First or Fourth Amendments.<sup>358</sup> This is true despite continuing calls for reconsidering traditional First and Fourth Amendment doctrines in the face of widespread governmental surveillance<sup>359</sup> and for

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*On the Essential Complementarity of Privacy and Speech*, in INFORMATION AND LAW IN TRANSITION 243 (Anna-Sara Lind, Inger Österdahl & Jane Reichel eds., 2015); Nadine Strossen, *Beyond the Fourth Amendment: Additional Constitutional Guarantees that Mass Surveillance Violates*, 63 DRAKE L. REV. 1143 (2015).

355. Nissenbaum, *supra* note 350, at 142-43.

356. See, e.g., Human Rights Council, *Report of the Special Rapporteur on the Promotion and Protection of the Right to Freedom of Opinion and Expression*, *Frank La Rue* 7-8 (Apr. 17, 2013) (finding that undue interference with individuals’ privacy may also limit freedom of speech by, for example, compromising anonymity).

357. See, e.g., Cásarez, *supra* note 354, at 853-59; Margot E. Kaminski & Shane Witnov, *The Conforming Effect: First Amendment Implications of Surveillance*, *Beyond Chilling Speech*, 49 U. RICH. L. REV. 465 (2015); Elizabeth Stoycheff, *Under Surveillance: Examining Facebook’s Spiral of Silence Effects in the Wake of NSA Internet Monitoring*, 93 JOURNALISM & MASS COMM. Q. 296 (2016); Alex Mathews & Catherine Tucker, *Government Surveillance and Internet Search Behavior* (2015), <http://ssrn.com/abstract=2412564> (last visited Jan. 6, 2018); Jonathon W. Penney, *Chilling Effects: Online Surveillance and Wikipedia Use*, 31 BERKELEY TECH. L.J. 1 (2016).

358. For detailed analyses of the development of legal doctrine in this regard and the reasons for its inadequacy for dealing with modern technologies of surveillance, see sources cited *infra* note 359.

359. See, e.g., Christopher Slobogin, *Public Privacy: Camera Surveillance of Public Places and the Right to Anonymity*, 72 MISS. L.J. 213, 238 (2002); Katherine J. Strandburg, *Freedom of Association in a Networked World: First Amendment Regulation of Relational Surveillance*, 49 B.C.L. REV. 741 (2008); Timothy Zick, *Clouds, Cameras, and Computers: The First Amendment and Networked Public*

recognizing a general constitutional right to anonymity, and despite the U.S. Supreme Court's recognition that digital surveillance technologies necessitate such reconsideration of constitutional protections for privacy and freedom of expression.<sup>360</sup> For example, the American Civil Liberties Union's (ACLU's) attempt to directly challenge the constitutionality of the PRISM surveillance program was denied by the courts.<sup>361</sup> Moreover, the debate over the constitutionality of surveillance methods does not even begin to address the issue of non-governmental surveillance, which is arguably no less pervasive and problematic than governmental surveillance.

To conclude, our current digital ecosystem is a system of constant, structural surveillance, which undermines, if not totally diminishes, anonymity. Since anonymity is important to a system of free expression, and its absence chills speakers and undermines speech, interference with the liberty of speech is built into the very structure of our current speech environment.

#### F. *Lack of Inviolability*

The preceding aspects of diminishing liberty in the digital ecosystem—interference from multiple sources; state-encouraged private regulation; multiple modes of interference; new-media concentration; and lack of anonymity—all underline a sixth

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*Places*, 59 FLA. L. REV. 1 (2007); Matthew Lynch, *Closing the Orwellian Loophole: The Present Constitutionality of Big Brother and the Potential for a First Amendment Cure*, 5 FIRST AMEND. L. REV. 234 (2007); Brown, *supra* note 335; Shepard & Belmas, *supra* note 333; Cásarez, *supra* note 354.

360. For one of the clearest expositions of this sentiment, see *United States v. Jones*, 132 S. Ct. 945, 954-58 (2012) (Sotomayor, J., concurring).

361. On December 27, 2013, the U.S. District Court for the Southern District of New York granted the U.S. government's motion to dismiss the ACLU's complaint, holding that the NSA bulk telephony metadata collection program was lawful. *See* *ACLU v. Clapper*, 959 F. Supp. 2d 724 (S.D.N.Y. 2013). On appeal, the U.S. Court of Appeals for the Second Circuit reversed the District Court's ruling, holding that the bulk telephony metadata collection program was illegal on statutory grounds, but affirming the District Court's decision to deny the plaintiffs' motion for a preliminary injunction on constitutional grounds. *See* *ACLU v. Clapper*, 785 F.3d 787 (2d Cir. May 7, 2015). Following the passage of the USA Freedom Act (H.R. 2048, Pub. L. 114-23), which created an alternative surveillance program, the ACLU again moved for a preliminary injunction to bar the government, *inter alia*, from collecting Appellants' call records during the pendency of the litigation and the transition period until the entry into force of the new program. The Second Circuit declined to reach the constitutional issues presented by the ACLU and denied an injunction. *See* *ACLU v. Clapper*, 804 F.3d 617 (2d Cir. Oct. 29, 2015).

important aspect that encapsulates much of what is problematic about our current speech environment: lack of inviolability. In an article published in 1995, Thomas Nagel suggested that we think of rights as a “*status*—part of what is involved in being a member of a moral community.”<sup>362</sup> “Moral status, as conferred by moral rights,” says Nagel, is a “normative condition, consisting of what is permitted to be done to persons, what persons are permitted to do, what sorts of justifications are required for preventing them from doing what they want, and so forth.”<sup>363</sup> This condition is that of a certain kind of inviolability; it means that “one *may not* be violated in certain ways—such treatment is inadmissible, and if it occurs, the person has been wronged.”<sup>364</sup> Importantly, the fact of a person having or lacking this type of moral status carries value apart from whether that status is violated; what *may be done* to us is important, quite apart from whether or not it *is done* to us (and the same is true of what we *may* do as opposed to what we *actually* do).<sup>365</sup> This is the independent normative value of inviolability.

Inviolability, as it manifests in the right to freedom of expression, lies in the notion that, regardless of whether a potential speaker ever wants to say anything objectionable, the idea that she could be stopped if she did, is in itself a violation of the potential speaker’s integrity.<sup>366</sup> Unfortunately, in terms of the independent value of inviolability, our current digital ecosystem suffers from a serious normative deficit compared to the pre-Internet era. The state was never the only threat to free expression, but before the digital age, it was, by far, the greatest potential silencer of speech. Under the mass-media model of information production, the biggest problem was a concentrated media industry that provided little diversity and little access to most of society’s constituents.<sup>367</sup> However, direct interference by private entities with others’ speech was less of a concern (as opposed to, for example, content scarcity).<sup>368</sup> In that

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362. Nagel, *supra* note 106, at 85.

363. *Id.*

364. *Id.* at 89-90. See also, e.g., Frances Myrna Kamm, *Harming Some to Save Others*, 57 PHIL. STUD. 251 (1989); Frances Myrna Kamm, *Non-consequentialism, the Person as an End-in-Itself, and the Significance of Status*, 21 PHIL. & PUB. AFF. 381 (1992); Warren S. Quinn, *Actions, Intentions and Consequences: The Doctrine of Doing and Allowing*, PHIL. REV. 98 (1989).

365. *Id.* at 91.

366. *Id.* at 96.

367. See, e.g., Yemini, *supra* note 52, at ¶47 and the references therein.

368. This is because the major media companies of the time were themselves content providers, and not carriers of others’ speech, while telecommunications providers were subject to common carriage obligations. For

speech environment, the idea of inviolability was an overarching norm backed up by strong constitutional protections against the primary censor, i.e. the government.

In contrast, in the digital ecosystem of the twenty-first century—a system of constant surveillance, many potential censors, and multiple modes of interference—invulnerability is not the norm. Currently, nothing prevents private online intermediaries from stopping any of their users from speaking (except for their self-written rules, which obviously do not pose a serious obstacle),<sup>369</sup> and not much prevents the government from circumventing

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a short overview of the development of broadcasting, common carriage and cable communications regulation in the U.S. during the twentieth century see, for example, Amit 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, 148-54 (2007).

369. While in practice, some online intermediaries may show more tolerance for their users' speech than others (for a comparison between patterns of account deactivations and content removals by Facebook, YouTube, Flickr, Twitter and Blogger, see York, *supra* note 123), all such intermediaries reserve absolute discretion to control user-generated content. For example, Facebook, in its Terms of Services, reserves the right to "remove content you share in violation of these provisions." FACEBOOK, *supra* note 219, at § 3(2). YouTube reserves the right to remove any content that violates its Terms of Service, at its sole discretion and without prior notice. *Terms of Service*, YOUTUBE § 7(B) (May 25, 2018), <https://www.youtube.com/static?gl=US&template=terms>. YouTube's parent company, Google, uses somewhat narrower terms, stating that it may "remove or refuse to display content that [it] reasonably believe[s] violates [its] policies or the law." *Terms of Service*, GOOGLE, <https://policies.google.com/terms?hl=en> (last modified Oct. 25, 2017). Yahoo!, now a subdivision of Oath, Inc., has Terms of Service under which Oath "may remove and refuse to display content that violates the Terms or applicable laws or regulations . . ." *Terms of Service*, OATH § 6(a), <https://policies.oath.com/us/en/oath/terms/otos/index.html> (last updated Oct. 2018). Twitter reserves the right to "remove or refuse to distribute any Content on the Services, suspend or terminate users, and reclaim usernames" without liability to its users. *Terms of Service*, TWITTER, § 8 (May 25, 2018), <https://twitter.com/tos#content>. Apple iCloud's terms of service stipulate that Apple may "determine whether Content is appropriate and in compliance with this Agreement, and may pre-screen, move, refuse, modify and/or remove Content at any time, without prior notice and in its sole discretion, if such Content is found to be in violation of this Agreement or is otherwise objectionable." *Welcome to iCloud*, APPLE § V(C), <https://www.apple.com/ca/legal/internet-services/icloud/en/terms.html> (last updated Sept. 17, 2018); and so forth. For clarity, online intermediaries are also subject to external rules, such as national legislation, but when such external rules relate to users' speech they are most commonly designed to prevent online intermediaries from *allowing* their users to speak (e.g. laws which prohibit the publication of certain types of content or impose liabilities on intermediaries for carrying certain types of content), but not to prevent them from *stopping* their users from speaking. The only major exception in this regard is network neutrality rules.

constitutional restrictions by applying censorship through private regulatory channels. Consequently, the idea that things cannot be done to prevent us from speaking, which was once the overarching principle in the landscape of free speech, has been eroded to the point where it covers only part, and not necessarily the most significant part, of our speech environment.

#### IV. CONCLUSION

The system of free expression of the twentieth century has taught us that liberty to speak has limited meaning without the capacity to act on it. The system of free expression of the twenty-first century teaches us that expressive capacity has limited meaning without liberty from interference. In the digital age, the right to freedom of expression is steadily and increasingly being reshaped as a privilege.<sup>370</sup> This process is not simple to detect, because license to speak is very easily obtained. Practically anyone can set up a Facebook or Twitter or Snapchat account (or all of these together), and using Google does not even require that. With all of these opportunities for speech, it is sometimes easy to forget that, whatever users wish to do and to be through the use of these platforms, their interests are always subject to the grace of the platform. Borrowing from Wesley Hohfeld, online intermediaries wish their legal relationships with users to rest on the following proposition: “speak if you can; you have our license to do so, but we don’t agree not to interfere with you.”<sup>371</sup> No matter how wide the privilege, it is not a right. Since most speech today takes place on these terms, liberty in the digital ecosystem is seriously threatened.<sup>372</sup>

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370. For the seminal discussion on the legal distinction between rights and privileges, see generally, e.g., Wesley Newcomb Hohfeld, *Some Fundamental Legal Conceptions as Applied in Judicial Reasoning*, 23 YALE L.J. 16 (1913) (hereinafter *Hohfeld 1913*); Wesley Newcomb Hohfeld, *Some Fundamental Legal Conceptions as Applied in Judicial Reasoning*, 26 YALE L.J. 710 (1917). See also, e.g., Rodney A. Smolla, *Preserving the Bill of Rights in the Modern Administrative-Industrial State*, 31 WM. & MARY L. REV. 321, 326-27 (1990) (explaining the distinction between rights and privileges in American constitutional law).

371. *Hohfeld 1913*, *supra* note 370, at 35. I have replaced the words “eat the salad” in the original, with the word “speak.”

372. Recently for example, it has been reported that Facebook is developing software to suppress content from appearing specifically in people’s News Feeds in China, in order to get back to the Chinese market (from which it has been banned for the last seven years). See Mike Isaac, *For Facebook, Censorship Tool Could Reopen a Door to China*, N.Y. TIMES, Nov. 23, 2016, at A1. Gradually,

Normative scrutiny of online intermediaries' liberty-infringing practices might ordinarily be expected to yield legal conclusions and motivate liberty-enhancing policies. A legal system concerned with liberty might be expected, for example, to limit online intermediaries' ability to censor users' speech based on its content; to require online intermediaries to provide at least some amount of process before terminating users' accounts; to demand from them a reasonable level of transparency as to the way their algorithms work; to regulate their ability to aggregate, transfer, and sell personal user data; and to scrutinize ToS agreements that immunize online intermediaries from any liability toward their users.

In reality, however, the law does not function in this way. In fact, the whole organization of binding legal instruments is aligned to do the exact opposite, i.e. to provide online intermediaries with practically absolute discretion over the speech of their users. ToS agreements legitimize censorship, manipulation, and exclusion;<sup>373</sup> federal legislation encourages private censorship;<sup>374</sup> and most importantly, the constitutional setting protects online intermediaries' interests in censoring and utilizing their users' speech commercially, at the expense of individual users' interests in speaking freely.<sup>375</sup> Consequently, instead of supporting an environment of liberty, the law supports an environment of interference; an environment of speech without legal rights.<sup>376</sup>

For the digital ecosystem to form an environment of liberty, the role which law plays in it must take much greater account of users' liberty. Notably, this does not necessarily mean stripping online intermediaries of *all* power to regulate speech on their platforms. As James Grimmelman has argued, online moderation also has considerable advantages, since, when moderators do their job right, they facilitate communication and create the conditions that enable cooperation in online communities.<sup>377</sup> The key, however, as noted

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then, when profit is on the line, even the façade of being an ally of freedom of expression is put aside.

373. See *supra* notes 218-228, 369 and accompanying text.

374. See *supra* notes 274-287 and accompanying text.

375. See, e.g., Tutt, *supra* note 225, at 238-41 (noting that users do not have a First Amendment right against infringements by online intermediaries, while online intermediaries' own activities increasingly enjoy First Amendment protection against government regulation).

376. I have borrowed this phrase from Laura Stein, *Speech Without Rights: The Status of Public Space on the Internet*, 11 COMM. REV. 1 (2008).

377. James Grimmelman, *The Virtues of Moderation*, 17 YALE J.L. & TECH. 42, 45 (2015). See also, e.g., Tal Z. Zarsky, *Law and Online Social Networks:*

by Bruce Ackerman, is that “no form of power is immune from the question of legitimacy,”<sup>378</sup> and there is no reason why this should not apply to online intermediaries as well. Instead of incentivizing online intermediaries to exercise their power as they deem fit by exempting them from the need to legitimize their actions, the law should see that online intermediaries exercise their power legitimately.<sup>379</sup> Future research will further explore how to achieve this objective.

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*Mapping the Challenges and Promises of User-Generated Information Flows*, 18 FORDHAM INTELL. PROP. MEDIA & ENT. J. 741, 778 (2008).

378. BRUCE A. ACKERMAN, SOCIAL JUSTICE IN THE LIBERAL STATE 4 (1980).

379. *Cf.* Grimmelmann, *supra* note 377, at 103-07.