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Ecosystem of Distrust

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ECOSYSTEM OF DISTRUST

Mark Verstraete & Derek E. Bambauer*

ABSTRACT

The Internet has famously democratized the information ecosystem. Online, everyone is a pundit: each participant can share news, analyze events, and opine. The analog system, by contrast, was one where incumbent intermediaries (frequently licensed by governments) performed a powerful, centralized gatekeeping function that largely regulated the creation and dissemination of news. Scholars have mostly welcomed the rise of the democratized, networked Fourth Estate. We argue that this transformation is not at all an unalloyed good. Moreover, in celebrating this technological revolution, commentators have neglected the role of cultural factors that tend to magnify the pernicious effects of a flattened information hierarchy.

Distrust in social institutions has been on the rise since the Watergate crisis in the 1970s. While government has been the most obvious target of falling confidence, media entities and subject matter experts have also been increasingly the focus of skepticism. The advent of the Internet has magnified this effect: gatekeepers such as CBS and the New York Times are vilified when wrong and invisible when correct. Many eyes make media errors shallow. Moreover, traditional journalistic norms that require forthright admission of mistakes help reinforce narratives that portray the “mainstream media” as biased, incompetent, and out of touch.

The current phenomenon labeled as “fake news,” and the older trend of conspiracy theories, are outgrowths of both the technological amplification of skeptical or nihilistic voices and the postmodern assault on information shibboleths. It is critical to realize that the Internet’s initial promise of disintermediation was illusory: gatekeepers have not been eliminated, but merely replaced. The new breed of intermediaries operates with radically different financial incentives and professional norms than their predecessors did. While Facebook moderates and removes information on its ubiquitous platform for violations of amorphous community standards, the company’s goal is not the production of truth, but rather the generation of increased traffic

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and interaction by users. Falsity can be profitable if it's popular. Both the old and new bosses curated content, but to vastly different ends.

We argue that the new architecture of networked information has a structurally corrosive effect. It is easier to generate doubt about narratives—even those produced by previously trusted sources—than it is to create trusted content. Previously, intermediaries served as choke points: they reacted to incentives that led them to filter unreliable material, in order to preserve their status as creators of the historical record. Now, authors and distributors attract attention (which they monetize) by casting doubt. The most pernicious feature of the Internet news ecosystem is that it leads to a cascade of cynicism: it reinforces not just skepticism about a particular course, but distrust for all media production.

Importantly, current scholarly accounts of fake news and conspiracy theories are technologically overdetermined. The democratization of information flows by networked computing cannot fully account for the spread of fake news and the distrust of established media more generally. We argue that cultural factors are neglected causes of these phenomena. First, the technological transformation of the public sphere is accompanied by a social shift toward pervasive distrust of experts. This anti-intellectual turn both constitutes and is constituted by the spread of fake news. Second, while fake news has taken a stronger hold in America than in Europe, the technical systems that undergird the information economy are nearly identical on both sides of the Atlantic. Thus, we explore the non-technical factors that make the United States particularly amenable to the spread of fake news and a culture of media distrust.

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INTRODUCTION

Online, no one knows that you're a dog, but many people may well think you're a journalist.¹

The dominant explanation for the rise of fake news places Internet technology—especially social media such as Facebook and Twitter—at the center of the narrative.² It is certainly correct that technology is not neutral. Science and Technology Studies (STS) demonstrate that different technical systems favor certain political and cultural arrangements.³ The technical underpinnings of fake news are no exception to this rule. Technical changes in news distribution are a piece of the origin story for the rapid proliferation of fake news in the media ecosystem. However, the recent turn toward news aggregation and dissemination on Internet platforms like Facebook and Twitter only provides part of that story. Technology and society are co-constitutive. While technology shapes society, our political and cultural systems also shape how technology develops and the social impacts of emerging technology.⁴ Technology and society inhabit a feedback loop through which they act on (and influence) each other.⁵

For the most part, legal scholars have concentrated on the role that technical changes in the news ecosystem play in the production and spread of fake news. Writing for this Symposium issue, for example, Richard Hasen details how Internet platforms have lowered the cost of speech, leading to the rise of fake news.⁶ Facebook and Twitter have largely displaced conventional news

¹ Peter Steiner's famous cartoon appeared in *The New Yorker* on July 5, 1993. See Michael Cavanaugh, *Nobody Knows You're a Dog: As Iconic Internet Cartoon Turns 20, Creator Peter Steiner Knows the Joke Rings as Relevant as Ever*, WASH. POST (July 31, 2013), https://www.washingtonpost.com/blogs/comic-riffs/post/nobody-knows-youre-a-dog-as-iconic-internet-cartoon-turns-20-creator-peter-steiner-knows-the-joke-rings-as-relevant-as-ever/2013/07/31/73372600-f98d-11e2-8e84-c56731a202fb_blog.html.

² See, e.g., Brian Resnick, *The Science Behind Why Fake News is so Hard to Wipe Out*, VOX (Oct. 31, 2017, 5:36 PM), <https://www.vox.com/science-and-health/2017/10/5/16410912/illusory-truth-fake-news-las-vegas-google-facebook>; see also David Pierson, *Facebook and Google Pledged to Stop Fake News. So Why Did They Promote Las Vegas-Shooting Hoaxes?*, L.A. TIMES (Oct. 2, 2017, 4:55 PM), <http://www.latimes.com/business/la-fi-tn-vegas-fake-news-20171002-story.html>.

³ See Langdon Winner, *Do Artifacts Have Politics?*, 109 DAEDALUS 121 (1980).

⁴ See generally EVGENY MOROZOV, *THE NET DELUSION: THE DARK SIDE OF INTERNET FREEDOM* (2011) (offering a critique of techno-utopianism).

⁵ See generally DONALD A. MACKENZIE & JUDY WACJMAN, *THE SOCIAL SHAPING OF TECHNOLOGY* (1999). As David Golumbia writes, "certain technologies tend to come with implicit politics, these have often been formed by the developers of the technology, and are almost always subject to the social matrices in which those technologies are embedded, and the technologies themselves are largely shaped by these social matrices." ROBERTO SIMANOWSKI, *DIGITAL HUMANITIES AND DIGITAL MEDIA: CONVERSATIONS ON CULTURE, AESTHETICS, AND LITERACY* 132 (2016).

⁶ See generally Richard Hasen, *Cheap Speech and What It Has Done (To American Democracy)*, 16 FIRST AMEND. L. REV. 200 (2018).

gatekeepers who provided a baseline set of facts that helped shape national discussions.⁷ Hasen rightly argues that low-cost speech coupled with the waning power of traditional gatekeepers has undermined “stabilizing institutions of American democracy including newspapers and political parties.”⁸ The transition from carefully curated and contextualized media content to a “media firehose . . . has diluted trusted sources of information and led to the rise of ‘fake news.’”⁹

Critically, however, socio-cultural factors that also drive the production and efficacy of fake news are noticeably sidelined in this analysis. Fake news is not only a product of technical innovations that have transformed the public sphere, but also the result of a particular cultural moment. While technology has contributed to a general loss of faith in core democratic institutions, it is not alone in shaping our cultural attitudes that have led to widespread distrust and laid the groundwork for the rapid spread of fake news.¹⁰

In this Essay, we argue that fake news is the product of a unique socio-technical assemblage. In doing so, we demonstrate how technology combines with a set of cultural factors, which together create the conditions for the proliferation and effectiveness of fake news. This Essay proceeds in several further parts. Part I makes the case for incorporating cultural factors into the analysis of fake news by arguing that analyses that focus exclusively on technical changes are incomplete. Part II introduces a set of neglected cultural factors that—in concert with technical innovations—give rise to fake news. Part III shows how recent technical innovations and cultural attitudes create a feedback loop that drives fake news and other potential harms to democracy.

I. THE CASE FOR CULTURAL ANALYSIS

Technical explanations for fake news and its attendant social harms are incomplete. This Part offers two main reasons to examine cultural explanations for the fake news phenomenon. First, digital platforms have displaced traditional news gatekeepers on a global scale. Yet, the proliferation of fake news is particularly acute in the United States.¹¹ To some extent, fake

⁷ *Id.*

⁸ *Id.* at 202.

⁹ *Id.*

¹⁰ Fake news, in turn, feeds back into a general distrust of institutions.

¹¹ See, e.g., Andrew Rettman, *Oxford Study Raises Alarm on 'Junk' News in France*, EU OBSERVER (Aug. 21, 2017, 9:17 AM), <https://euobserver.com/elections/137636>; Scott Roxborough, *How Europe is Fighting Back Against Fake News*, HOLLYWOOD REPORTER (Aug. 21, 2017, 6:30 AM),

news is a uniquely American problem, suggesting that other factors (not merely technical ones) principally influence the rise and spread of fake news. Second, though Internet and social media use is consistent across the political spectrum, the American right-wing media ecosystem tends to be significantly more polarized than the left.¹² Again, this suggests that fake news and media polarization do not flow inexorably from the rise of Internet communication and social media platforms. Since the underlying technology of social media is largely similar across countries (even if the individual players differ from state to state), one would expect fake news to be consistent across those countries if the phenomenon is technologically determined. Similarly, liberals, conservatives, and moderates in America all use the same set of platforms, so one would expect fake news and media polarization to be much the same across the U.S. political spectrum.

A. Fake News Across the Globe

Fake news gained national attention immediately following the United States presidential election in 2016. Many commentators suggested that the spread of fake news in the run up to the election turned the election in favor of now-President Donald Trump.¹³ Recent empirical data shows that fake news made up a large percentage of news consumption prior to the election.¹⁴ For instance, Michigan voters consumed equal amounts of professional news content and junk news on Twitter in the days leading up to the election.¹⁵ By contrast, in the run

<https://www.hollywoodreporter.com/news/how-europe-is-fighting-back-fake-news-1030837>.

¹² See, e.g., Robert M. Faris et al., *Partisanship, Propaganda, and Disinformation: Online Media and the 2016 U.S. Presidential Election*, BERKMAN KLEIN CTR. FOR INTERNET & SOC'Y 1, 49 (Aug. 2017),

https://dash.harvard.edu/bitstream/handle/1/33759251/2017-08_electionReport_0.pdf?sequence=9.

¹³ Hannah Jane Parkinson, *Click And Elect: How Fake News Helped Donald Trump Win a Real Election*, THE GUARDIAN (Nov. 14, 2016, 11:27 AM),

<https://www.theguardian.com/commentisfree/2016/nov/14/fake-news-donald-trump-election-alt-right-social-media-tech-companies>; see also Callum Borchers, *This is a Real News Story About Fake News Stories*, WASH. POST (Nov. 7, 2016),

https://www.washingtonpost.com/news/the-fix/wp/2016/11/07/this-is-a-real-news-story-about-fake-news-stories/?utm_term=.f3844ecb0e94

¹⁴ See, e.g., Rettman, *supra* note 11; Faris et al., *supra* note 12.

¹⁵ Samantha Bradshaw et al., *Junk News and Bots During the French Presidential Election: What Are French Voters Sharing Over Twitter?*, COMPUTATIONAL PROPAGANDA

PROJECT 1, 1 (Apr. 22, 2017), <http://comprop.oii.ox.ac.uk/wp-content/uploads/sites/89/2017/04/What-Are-French-Voters-Sharing-Over-Twitter-v10.pdf> (“In the days leading up the US election, we did a close of junk news consumption among Michigan voters and found a 1:1 ratio between professional news content and junk.”). Researchers use “junk news” to designate “content [that] includes various forms of propaganda and ideologically extreme, hyper-partisan, or conspiratorial political news and information.” *Research Design FAQ*,

up to the French election, junk news made up only 25 percent of news content shared on Twitter.¹⁶ Interestingly, the same study that examined sharing habits of Michigan voters also confirmed that German and French voters shared more high-quality news and less “junk news” content than their American counterparts.¹⁷

Another Oxford University report suggests several reasons why fake news is a uniquely American phenomenon.¹⁸ First, very few people can accurately recall having seen fake news¹⁹ except in the United States.²⁰ Second, German and French citizens often use the English term “fake news,” which suggests that fake news is “something that has been largely imported rather than a home-grown phenomenon.”²¹ Third, the United States’ online news media ecosystem is more polarized than in any country in Europe.²² The combination of these factors makes the United States particularly amenable to fake news and its attendant social harms.

In addition, fake news is largely spread on social media platforms that monetize popularity rather than credibility. Established, mainstream media institutions such as the Big Three networks²³ and newspapers including the *New York Times* and

COMPUTATIONAL PROPAGANDA PROJECT, <http://comprop.oii.ox.ac.uk/about-the-project/research-design-faq/> (last visited Feb. 22, 2018). “Much of this content is deliberately produced false reporting.” *Id.*

¹⁶ See Rettman, *supra* note 11.

¹⁷ Bradshaw et al., *supra* note 15; see also Mark Hosenball & Joseph Menn, *Experts Say Automated Accounts Sharing Fake News Ahead of French Election*, REUTERS INST. (Apr. 20, 2017, 7:42 PM), <https://www.reuters.com/article/us-france-election-socialmedia/experts-say-automated-accounts-sharing-fake-news-ahead-of-french-election-idUSKBN17M31G> (noting that Philip Howard, the lead author of the study, concluded that “[b]oth German and French voters are sharing smaller amounts of junk news”).

¹⁸ See Philip N. Howard et al., *Social Media, News and Political Information During the US Election: Was Polarizing Content Concentrated in Swing States?*, COMPUTATIONAL PROPAGANDA PROJECT (Sept. 28, 2017), <http://comprop.oii.ox.ac.uk/wp-content/uploads/sites/89/2017/09/Polarizing-Content-and-Swing-States.pdf>; Samantha Bradshaw & Philip N. Howard, *Troops, Trolls and Troublemakers: A Global Inventory of Organized Social Media Manipulation*, COMPUTATIONAL PROPAGANDA PROJECT (July 14, 2017), <http://comprop.oii.ox.ac.uk/wp-content/uploads/sites/89/2017/07/Troops-Trolls-and-Troublemakers.pdf>.

¹⁹ Researchers defined “fake news” as “news that is ‘invented’ to make money or discredit others.” Nic Newman et al., *Reuters Institute Digital News Report 2017*, REUTERS INST. 1, 19, https://reutersinstitute.politics.ox.ac.uk/sites/default/files/Digital%20News%20Report%202017%20web_0.pdf (last visited Feb. 22, 2018). Compare this with the definition of “hoax” from Verstraete, Bambauer, & Bambauer, *infra* note 104 (“A hoax is a news story with purposefully false content, is financially motivated, and is intended by its author to deceive readers.”).

²⁰ Newman et al. *supra* note 19, at 19.

²¹ *Id.*

²² *Id.* at 39.

²³ The “Big Three” refer to ABC, CBS, and NBC. Douglas Blanks Hindman & Kenneth Wiegand, *The Big Three’s Prime-Time Decline: A Technological and Social Context*, 52 J. BROADCASTING & ELECTRONIC MEDIA 119, 119 (2008).

Washington Post also depend upon popularity to an extent, since both circulation and advertising are key to revenues, but that popularity is significantly determined by these entities' reputations for producing reliable content. Facebook and Twitter are less overtly responsible for the information on their sites—virtually all of their content is user-generated.²⁴ We identify Facebook posts and Tweets with individual users, not with the platform that shares them. Thus, social media companies have less to gain or lose from reputational consequences than they do from maximizing viewership. This is not to suggest that these firms are indifferent to false or misleading content; rather, it is to make plain the point that their economic incentives align differently than traditional media gatekeepers. Critically, then, fake news is not a story about disintermediation.²⁵ It is a story about a changing of the guard among gatekeepers.

Polarized and sensational media contribute to widespread distrust in the media establishment, and fake news (and post-truth culture) leverages this distrust for its effectiveness. Media polarization in Europe is limited by major state-led media outlets that are trusted by citizens on both ends of the political spectrum.²⁶ As Simon Kuper notes, “state broadcasters, [] the Ansa news agency in Italy, [and] Germany’s centrist mass media” provide a source that is generally trusted and, as a result, “few western Europeans inhabit ideological ‘filter bubbles.’”²⁷ Like state broadcasters in other parts of Europe, the British Broadcasting Company (BBC) in the United Kingdom limits polarization by establishing a baseline set of accepted facts for national debates.²⁸

While trusted state media sources provide a bulwark against fake news in Europe, similar American media outlets are less effective in that role. Possible American analogs for state news sources in Europe would be National Public Radio (NPR) and Public Broadcasting Service (PBS). A 2011 Pew Project for Excellence in Journalism Report established that NPR and PBS “were more neutral towards President Obama in his first 100 days on the job in 2009 than were most news organizations,” yet

²⁴ See, e.g., Megan O’Neill, *How Much Do Facebook & YouTube Profit From User Generated Content?*, ADWEEK (July 1, 2011), <http://www.adweek.com/digital/user-generated-content-infographic/>.

²⁵ See, e.g., Robert Gellman, *Disintermediation and the Internet*, 13 GOV’T INFO. Q. 1 (1996).

²⁶ See Anya Schiffrin, *How Europe Fights Fake News*, COLUM. J. REV. (Oct. 26, 2017), <https://www.cjr.org/watchdog/europe-fights-fake-news-facebook-twitter-google.php>; see also Simon Kuper, *Why There Will Never Be A Trump In Today’s Europe*, FIN. TIMES (June 28, 2017), <https://www.ft.com/content/396f895c-5b87-11e7-b553-e2df1b0c3220>.

²⁷ Schiffrin, *supra* note 26.

²⁸ *Id.*

whether someone considers NPR and PBS trustworthy skews heavily along partisan lines.²⁹ Thus, American political polarization has spread to the media ecosystem, undercutting the ability of non-aligned news sources to act as honest brokers.

B. Media Polarization Across the U.S. Political Spectrum

Several commentators have suggested that social media and personalized news feeds fuel media polarization and create filter bubbles where people only see content that they already agree with.³⁰ Social media and personalized news dissemination contribute to media polarization, but analyses that focus mainly on the underlying technical architecture cut too broadly, for several reasons.

People across the American political spectrum get political information from social media at roughly similar rates,³¹ yet polarization is more extreme on the right.³² Yochai Benkler and his co-authors succinctly make this point in a recent study: “Our analysis challenges a simple narrative that the Internet *as a technology* is what fragments discourse and polarizes opinions, by allowing us to inhabit filter bubbles or just read ‘the daily me.’ If technology were the most important driver towards a ‘post-truth’ world, we would expect to see symmetric patterns [of media polarization] on the left and the right.”³³ The authors further conclude that, “[w]hile Facebook and Twitter certainly enabled right-wing media to circumvent the gatekeeping power of traditional media, the pattern was not symmetric.”³⁴

Another study suggests the Internet and social media play only a limited role in explaining the growth of polarization.³⁵ Here, researchers found “that the groups least likely to use the

²⁹ Alicia C. Shepherd, *Views of NPR’s Credibility Tend To Be Partisan-Based*, NPR (Apr. 28, 2011, 12:54 PM), <https://www.npr.org/sections/ombudsman/2011/04/28/135775694/views-of-nprs-credibility-tend-to-be-partisan-based>.

³⁰ CASS SUNSTEIN, #REPUBLIC: DIVIDED DEMOCRACY IN THE AGE OF SOCIAL MEDIA (2017) (arguing that the Internet and social media have fueled political fragmentation and polarization); see also ELI PARISER, THE FILTER BUBBLE: HOW THE NEW PERSONALIZED WEB IS CHANGING WHAT WE READ AND HOW WE THINK (2012) (same).

³¹ Aaron Smith, *Cell Phones, Social Media and Campaigns 2014*, PEW RESEARCH CTR. (Nov. 3, 2014), <http://www.pewinternet.org/2014/11/03/cell-phones-social-media-and-campaign-2014/> (“Participation in the digital campaign does not have a clear partisan slant.”).

³² Yochai Benkler et al., *Study: Breitbart-Led Right-Wing Media Ecosystem Altered Broader Media Agenda*, COLUM. J. REV. (Mar. 3, 2017), <https://www.cjr.org/analysis/breitbart-media-trump-harvard-study.php>; see also Faris et al., *supra* note 12.

³³ Benkler et al., *supra* note 32.

³⁴ *Id.*

³⁵ See Levi Boxell, Matthew Gentzkow, & Jesse M. Shapiro, *Greater Internet Use is Not Associated With Faster Growth in Political Polarization Among US Demographic Groups*, 114 PROC. NAT’L ACAD. SCI. U.S. AM. 10612, 10612 (2017).

Internet experienced larger changes in polarization between 1996 and 2016 than the groups most likely to use the Internet.”³⁶ If the Internet and social media were largely responsible for driving polarization, groups who use these technologies more often should see more rapid polarization than groups who use them less frequently. Instead, researchers found the opposite effect, suggesting that the recent trend toward polarization cannot be wholly explained by reference to the underlying technology. Thus, polarization is *underdetermined* by Internet and/or social media usage.

C. *The Internet and the Decline of Traditional Media*

There is at least one structural effect of Internet technology on traditional media that has been largely neglected in the analysis of fake news. Scholars tend to view the online advertising market as a zero-sum game: the revenues earned by Facebook and Google come at the expense of potential advertising by newspapers and television stations. Ergo, the rise of digital platforms is a contributing factor, if not the principal cause, of the decline of newspapers (and, to a lesser extent, television stations).³⁷ This argument is almost perfectly wrong. As journalist Jack Shafer notes, newspapers have been in a state of gradual decline since the early twentieth century.³⁸ The most potent challenge to newspaper ad revenues is not social media—it’s the relatively low-tech Web site Craigslist.³⁹ Classified ad revenues were the life blood of most newspapers, particularly local ones. Craigslist absorbed much of this revenue by making classifieds cheap (or free) and easily searched.⁴⁰ And the plunge in newspaper classified ad revenues began in 2000, four years

³⁶ *Id.*

³⁷ See, e.g., Robert G. Kaiser, *The Bad News About the News*, BROOKINGS: THE BROOKINGS ESSAY (Oct. 16, 2014), <http://csweb.brookings.edu/content/research/essays/2014/bad-news.html#> (stating that “as newspaper revenues have plummeted, the ad revenue of Google has leapt upward year after year—from \$70 million in 2001 to an astonishing \$50.6 billion in 2013”).

³⁸ Jack Shafer, *Don’t Blame Craigslist for the Decline of Newspapers*, POLITICO: MAGAZINE (Dec. 13, 2016), <http://www.politico.com/magazine/story/2016/12/craigslist-newspapers-decline-classifieds-214525> (noting that “[n]ewspapers have been declining since the arrival of radio in the 1920s, with a steady attrition of total titles and per capita consumption over the years”).

³⁹ See Robert Seamans & Feng Zhu, *Responses to Entry in Multi-Sided Markets: The Impact of Craigslist on Local Newspapers*, 60 MGMT. SCI. 476, 490 (2014).

⁴⁰ See Shafer, *supra* note 38; Seamans & Zhu, *supra* note 39; Philip Weiss, *A Guy Named Craig*, N.Y. MAGAZINE, <http://nymag.com/nymetro/news/media/internet/15500/> (last visited Feb. 22, 2018).

before Facebook was founded and six years before Twitter was.⁴¹ (Craigslist launched in 1996.⁴²) It is strange to hear commentators complain that “Facebook and Google . . . exploit the work of traditional providers of news that create information useful to Facebook friends and Google searchers.”⁴³ The information is indeed useful, but as the same commentator notes, the new digital intermediaries “lead large numbers of readers to the journalism of the legacy media.”⁴⁴ Most content providers are delighted to have gatekeepers send traffic—and eyeballs—their way; after all, that is how they sell advertising. Most of these critiques fail to understand the economics of either newspapers or social media, and cannot establish a causal relationship between the rise of platforms and the decline of institutional media.

The rise of digital intermediaries does not occur in a cultural vacuum. At minimum, examining cultural factors that lend support to fake news and “post-truth” society offers a new point of reference to make sense of our time. The next section examines a set of neglected cultural factors that—together with the technical structure of the digital media ecosystem—construct the fake news phenomenon.

II. FAKE NEWS AND OUR UNPREDICTABLE FUTURE

Upon reflection, it should be no surprise that fake news and post-truth politics are emerging at this particular cultural moment. These phenomena rely on a general sense of uncertainty about the future—something that the present situation provides in abundance.⁴⁵ At the highest level of abstraction, fake news and post-truth society—and their newfound effectiveness—are largely determined by the loss of faith in a stable future, driven in part by the 2008 financial crisis and climate change. More specifically, our financial and

⁴¹ See Sydney Jones, *Online Classifieds*, PEW RESEARCH CTR. (May 22, 2009), <http://www.pewinternet.org/2009/05/22/online-classifieds/>; Mark J. Perry, *Creative Destruction: Newspaper Ad Revenue Continued its Precipitous Free Fall in 2014, and it's Likely to Continue*, AEIDEAS (Apr. 30, 2015, 11:24 AM), <https://www.aei.org/publication/creative-destruction-newspaper-ad-revenue-continued-its-precipitous-free-fall-in-2014-and-its-likely-to-continue/>; Jay Yarow, *Why The Newspaper Industry Collapsed*, BUS. INSIDER (Mar. 14, 2011, 4:02 PM), <http://www.businessinsider.com/chart-of-the-day-newspapers-classified-ads-revenue-2011-3>.

⁴² Jones, *supra* note 41.

⁴³ Kaiser, *supra* note 37.

⁴⁴ *Id.*

⁴⁵ See, e.g., Stuart Jeffries, *Welcome to the New Age of Uncertainty*, THE GUARDIAN (July 26, 2016, 12:51 PM), <https://www.theguardian.com/world/2016/jul/26/new-age-of-uncertainty-brexit-trump-future-world-flux>.

ecological crises⁴⁶ have cleared the ground for widespread distrust of experts and the surge of populist sentiment in the United States and abroad. Fake news and the larger phenomenon of post-truth culture have been built on this framework.

The rise of fake news is both a symptom and an effect of a widespread decline in America's public trust in institutions and experts.⁴⁷ Since the Watergate era, people have lost faith—sometimes overwhelmingly—in nearly every major American institution.⁴⁸ For the purposes of this Essay, the two most important entities that have suffered a loss in prestige are government (particularly the federal government) and major media institutions, such as the three principal broadcast television networks and national newspapers.⁴⁹ These two institutions were arguably the country's most important newsmakers: the government, by formulating and implementing policy; and the media, by curating and transmitting information about those policies. The two frequently formed an odd and uncomfortable partnership. When Walter Cronkite, previously a supporter of the Vietnam War, issued a critical three-minute statement on the nightly *CBS News* broadcast in February 1968 in the wake of the Tet offensive, it was widely perceived as a key turning point in American perceptions.⁵⁰ The government generated events (and the concomitant information), but it was principally the purview of the media to determine what constituted “news.”⁵¹

⁴⁶ In many ways, this separation between financial and ecological crisis is artificial. For instance, climate change is exacerbated capitalism and the prioritization of profit, rather than sustainability. Benjamin Y. Fong, *The Climate Crisis? It's Capitalism, Stupid*, N.Y. TIMES (November 20, 2017), <https://www.nytimes.com/2017/11/20/opinion/climate-capitalism-crisis.html>.

⁴⁷ See Ethan Zuckerman, *Mistrust, Efficacy and the New Civics: Understanding the Deep Roots of the Crisis of Faith in Journalism*, ASPEN INST. 1, 4 (July 2017), https://assets.aspeninstitute.org/content/uploads/2017/07/zuckerman.whitepaper.FINAL_.pdf.

⁴⁸ See, e.g., *Confidence in Institutions*, GALLUP, <http://news.gallup.com/poll/1597/confidence-institutions.aspx> (last visited Feb. 22, 2018); Bill Bishop, *Americans Have Lost Faith in Institutions. That's Not Because of Trump or 'Fake News'*, WASH. POST (Mar. 3, 2017), <https://www.washingtonpost.com/posteverything/wp/2017/03/03/americans-have-lost-faith-in-institutions-thats-not-because-of-trump-or-fake-news/>.

⁴⁹ See *Confidence in Institutions*, supra note 48 (revealing that the major exception to this trend of distrust is the military).

⁵⁰ See *Final Words: Cronkite's Vietnam Commentary*, NPR (July 18, 2009, 4:00 PM), <http://www.npr.org/templates/story/story.php?storyId=106775685>.

⁵¹ Information, however, did not necessarily have to be verifiably true to be deemed news. See Christopher Woolf, *Back in the 1890s, Fake News Helped start a War*, PRI (Dec. 8, 2016, 3:00 PM), <https://www.pri.org/stories/2016-12-08/long-and-tawdry-history-yellow-journalism-america> (noting that the Hearst newspaper chain reported the sinking of the U.S.S. Maine in 1898 as the fault of Spain, helping to start a war); see also Elisabeth Goodridge, *Front-Runner Ed Muskie's Tears (or Melted Snow?) Hurt His Presidential Bid*, U.S. NEWS & WORLD REP. (Jan. 17, 2008, 5:00 PM),

The crux of the problem, then, was not that false information was difficult to come by or unpopular. Fake news has a long and seedy history in American politics and culture. Benjamin Franklin invented lies about murders by Native Americans purportedly working with the British during the Revolutionary War.⁵² In 1835, the *New York Sun*, anxious to increase circulation, published a series of stories claiming that a new telescope had revealed inhabitants on the moon.⁵³ When a competitor revealed the fiction, the *Sun* nonetheless maintained its newfound popularity.⁵⁴ The Hearst chain of newspapers spread lies about conditions in Cuba to sell copies, including the assertion that Spain was responsible for the sinking of the American battleship *U.S.S. Maine*.⁵⁵ When the Federal Communications Commission shut down Dr. John Brinkley's broadcasts advertising a fraudulent male impotence cure in 1930, he set up a radio station just across the border in Mexico—and continued to have America's most popular radio show.⁵⁶ Alex Jones ranted on a small Austin radio station for four years before transitioning completely to his *InfoWars* Web site.⁵⁷ Timothy McVeigh read the hate novel *The Turner Diaries* in print before deciding to launch a terrorist attack in Oklahoma City in 1995; half a million other readers also purchased the book in paper form.⁵⁸ The *National Enquirer* has trafficked in Elvis sightings and alien babies for decades, averaging five- to six-million copies sold per year in the 1970s and 1980s.⁵⁹ Few, however, believed that

<https://www.usnews.com/news/articles/2008/01/17/72-front-runners-tears-hurt> (noting that the media reported that a Democratic presidential candidate cried during a speech in New Hampshire, which captured the headlines and was ultimately fatal to his campaign).

⁵² See Jacob Soll, *The Long and Brutal History of Fake News*, POLITICO (Dec. 18, 2016), <http://www.politico.com/magazine/story/2016/12/fake-news-history-long-violent-214535>.

⁵³ See *id.*

⁵⁴ See *id.*

⁵⁵ See Woolf, *supra* note 51; see also Robert Love, *Before Jon Stewart*, 45 COLUM. J. REV. 33, 35 (2007).

⁵⁶ See Andrew Lapin, *The Bizarre History of a Bogus Doctor Who Prescribed Goat Gonads*, NAT'L GEOGRAPHIC (July 15, 2016), <http://news.nationalgeographic.com/2016/07/documentary-interview-medicine-science/>; see also Erwin G. Krasnow & Jack N. Goodman, *The "Public Interest" Standard: The Search for the Holy Grail*, 50 FED. COMM. L.J. 605, 613 (1998).

⁵⁷ Alexander Zaitchik, *Meet Alex Jones*, ROLLING STONE (Mar. 2, 2011), <https://www.rollingstone.com/politics/news/talk-radios-alex-jones-the-most-paranoid-man-in-america-20110302>.

⁵⁸ See Julie Salamon, *The Web As Home for Racism and Hate*, N.Y. TIMES (Oct. 23, 2000), <http://www.nytimes.com/2000/10/23/arts/television-review-the-web-as-home-for-racism-and-hate.html>; see also Jo Thomas, *Behind a Book That Inspired McVeigh*, N.Y. TIMES (June 9, 2001), <http://www.nytimes.com/2001/06/09/us/behind-a-book-that-inspired-mcveigh.html>.

⁵⁹ Iver Peterson, *The National Enquirer Cuts Back on Sensationalism, but is Still Haunted by Its Past*, N.Y. TIMES (Sept. 8, 1997),

Senator Ted Kennedy had fathered an illegitimate child, or that Bigfoot had been spotted. The *Enquirer* was simply not treated as a reputable source, even though the paper did occasionally break stories, such as infidelity by then-Presidential candidate Senator Gary Hart in 1988, or a photo showing that accused murderer O.J. Simpson did in fact own a pair of Bruno Magli shoes, contradicting his testimony under oath.⁶⁰ News did not qualify as such until and unless one of the major media gatekeepers deemed it such.

Distrust of the media is compounded by an ironic mismatch between the set of journalistic norms and practices that enabled major media entities to earn their reputations for legitimacy, and the current information ecosystem of distrust. Journalism is, in the first instance, self-policing: reporters, editors, and ombudspersons are expected to verify stories and to investigate inaccuracies, even after publication.⁶¹ Thus, the *New York Times* and *Washington Post* both launched major efforts to ascertain why they published as fact claims by the administration of President George W. Bush that Iraq possessed weapons of mass destruction.⁶² After external pressure and an internal investigation, *CBS News* admitted that it was duped into reporting on documents that purported to show that President Bush had failed to complete his service in the Air National Guard.⁶³ And *The New Republic* was forced to retract a series of stories written by then-prodigy Stephen Glass that were entirely fiction.⁶⁴ For mainline media, self-assessment and disclosure of mistakes are core components of professional normative commitments.

<http://www.nytimes.com/1997/09/08/business/national-enquirer-cuts-back-sensationalism-but-still-haunted-its-past.html> (“The *Enquirer*, the market leader in dishing dirt on celebrities, has seen its circulation tumble nearly 55 percent from a peak of 6 million a week in the late 1970’s to 2.7 million today.”).

⁶⁰ David Phillips, *Printing the Truth Hasn’t Kept Readership From Fleeing the National Enquirer*, CBSNEWS.COM (May 10, 2010), <https://www.cbsnews.com/news/printing-the-truth-hasnt-kept-readership-from-fleeing-the-national-enquirer/>.

⁶¹ See, e.g., *SPJ Code of Ethics*, SOC’Y OF PROF’L JOURNALISTS, <https://www.spj.org/ethicscode.asp> (last revised Sept. 6, 2014) (calling on journalists to “Acknowledge mistakes and correct them promptly and prominently. Explain corrections and clarifications carefully and clearly.”).

⁶² See Franklin Foer, *The Source of the Trouble*, N.Y. MAG., <http://nymag.com/nymetro/news/media/features/9226/>; see also Gary Younge, *Washington Post Apologizes for Underplaying WMD Skepticism*, THE GUARDIAN (Aug. 12, 2004, 9:28 PM),

<https://www.theguardian.com/world/2004/aug/13/pressandpublishing.usa>.

⁶³ See Jarrett Murphy, *CBS Ousts 4 For Bush Guard Story*, CBS NEWS (Jan. 10, 2005, 6:48 PM), <https://www.cbsnews.com/news/cbs-ousts-4-for-bush-guard-story-10-01-2005/>.

⁶⁴ Buzz Bissinger, *Shattered Glass*, VANITY FAIR (Sept. 1998), <https://www.vanityfair.com/magazine/1998/09/bissinger199809>.

Increasingly, though, admissions of error are treated as admissions of guilt by media consumers. For example, when CNN decided to retract a story about ties between the administration of President Donald Trump and Russia, the choice to pull the piece tarnished the network's reputation rather than bolstering it.⁶⁵ Significant errors by large mainline media entities remain relatively rare. However, each one provides a telling example of salience bias for many consumers.⁶⁶ Errors that are disclosed by media outlets themselves demonstrate incompetence, while those that are caught by outsiders prove malfeasance. While this approach resonates across the American political spectrum,⁶⁷ it is dominant among political conservatives, for whom innate suspicion of the "lamestream media" is an article of established faith.⁶⁸ This generates effects even more pernicious than bipartisan attacks on the media, who are increasingly seen not as muckrakers, but as politically motivated operatives. The journalistic imperative to question governmental action is thus seen not as useful skepticism, but as thinly disguised bias.

Loss of trust in established media sources is just one aspect of a more generalized sense of distrust of traditional institutions. Earlier this year, *The Atlantic* examined the origins of widespread loss of faith in institutions and how this change powers the populist surge in American politics.⁶⁹ Uri Friedman—writing for *The Atlantic*—highlighted a multi-year study⁷⁰ by Edelman (a global communications firm) tracking citizens' faith in four key institutions: government, business, NGOs, and media. He noted that "[t]he report theorized that trust levels began declining as a result of the 2008 financial crisis

⁶⁵ See Sydney Ember & Michael M. Grynbaum, *At CNN, Retracted Story Leaves an Elite Reporting Team Bruised*, N.Y. TIMES (Sept. 5, 2017), <https://www.nytimes.com/2017/09/05/business/media/cnn-retraction-trump-scaramucci.html>.

⁶⁶ On salience, see generally Derek E. Bambauer, *Shopping Badly: Cognitive Biases, Communications, and the Fallacy of the Marketplace of Ideas*, 77 U. COLO. L. REV. 649, 692-94 (2006); RICHARD H. THALER & CASS R. SUNSTEIN, NUDGE 24-26, 33-34 (2008).

⁶⁷ See, e.g., Bernie Sanders, *How Corporate Media Threatens Our Democracy*, IN THESE TIMES (Jan. 26, 2017), <http://inthesetimes.com/features/bernie-sanders-corporate-media-threatens-our-democracy.html>; Michael Corcoran, *Twenty Years of Media Consolidation Has Not Been Good For Our Democracy*, MOYERS & CO. (Mar. 30, 2016), <http://billmoyers.com/story/twenty-years-of-media-consolidation-has-not-been-good-for-our-democracy/>.

⁶⁸ See Andy Barr, *Palin Trashes "Lamestream Media"*, POLITICO (Nov. 18, 2009), <http://www.politico.com/story/2009/11/palin-trashes-lamestream-media-029693>.

⁶⁹ Uri Friedman, *Why Trump is Thriving in an Age of Distrust*, THE ATLANTIC (Jan. 20, 2017), <https://www.theatlantic.com/international/archive/2017/01/trump-edelman-trust-crisis/513350/>.

⁷⁰ *2017 Edelman Trust Barometer*, EDELMAN, <https://www.edelman.com/trust2017/> (last visited Mar. 15, 2018).

and have continued to suffer as globalization and new technologies increase people's concern about their job security and future economic and social status."⁷¹ Here, too, attacks on expertise have been launched from both sides of the political aisle. Critics on the American political left believe that experts are covering up the harmful effects of vaccines⁷² or genetically modified foods,⁷³ despite the utter absence of reliable scientific data to support such claims.⁷⁴ (Indeed, the principal study cited in support for the claim that vaccines cause autism was revealed to have been invented by its author.)⁷⁵ Critics on the right doubt that the planet is warming,⁷⁶ or that human actions play an important role in climate change,⁷⁷ or reject evolution in favor of creationism.⁷⁸ The scientific method is respected only when its results conform to critics' prior commitments, rational or not.

Accompanying the loss of faith in experts is a distrust of their tools (data and statistics). Will Davies points to this loss of faith in statistics as a defining feature of fake news. Davies suggests that "[t]he declining authority of statistics and the experts who analyze them—is at the heart of the crisis that has become known as 'post-truth.'"⁷⁹ The distrust of statistics signals increasing polarization and problems for democracy more

⁷¹ Friedman, *supra* note 69.

⁷² See, e.g., Sarah Kaplan, *The Truth About Vaccines, Autism and Robert F. Kennedy Jr.'s Conspiracy Theory*, WASH. POST (Jan. 10, 2017), https://www.washingtonpost.com/news/speaking-of-science/wp/2017/01/10/the-facts-about-vaccines-autism-and-robert-f-kennedy-jr-s-conspiracy-theory/?utm_term=.f35d35c13357.

⁷³ See, e.g., Jeffrey Smith, *10 Reasons to Avoid GMOs*, INST. RESPONSIBLE TECH. (Aug. 25, 2011), <http://responsibletechnology.org/10-reasons-to-avoid-gmos/>.

⁷⁴ See, e.g., *Genetically Engineered Crops: Experiences and Prospects*, NAT'L ACAD. SCIS. (2016), <https://www.nap.edu/catalog/23395/genetically-engineered-crops-experiences-and-prospects>; Stanley Plotkin, Jeffrey S. Gerber, & Paul A. Offit, *Vaccines and Autism: A Tale of Shifting Hypotheses*, 48 CLINICAL INFECTIOUS DISEASES 456, 460 (2009).

⁷⁵ Laura Eggertson, *Lancet Retracts 12-Year-Old Article Linking Autism to MMR Vaccines*, 182 CAN. MED. ASS'N J. E199–200 (2010).

⁷⁶ See, e.g., Justin Haskins, *The 6 Biggest Reasons I'm a Climate-Change Skeptic — and Why You Should be a Skeptic Too*, THE BLAZE (July 23, 2017, 6:30 PM), <http://www.theblaze.com/news/2017/07/23/commentary-the-6-biggest-reasons-im-a-climate-change-skeptic-and-why-you-should-be-a-skeptic-too>.

⁷⁷ See, e.g., Steven Mufson, *Rick Perry Just Denied That Humans are the Main Cause of Climate Change*, WASH. POST (June 19, 2017), https://www.washingtonpost.com/news/energy-environment/wp/2017/06/19/trumps-energy-secretary-just-denied-that-man-made-carbon-dioxide-is-the-main-driver-for-climate-change/?utm_term=.37367ef7089a.

⁷⁸ See, e.g., CREATION MUSEUM, <https://creationmuseum.org/creation-science/>; Ronald Bailey, *How Do the Republican Candidates Score On Science?*, NEWSWEEK (Apr. 9, 2015, 12:08 PM), <http://www.newsweek.com/how-do-republican-candidates-score-science-321020>.

⁷⁹ William Davies, *How Statistics Lost Their Power—And Why We Should Fear What Comes Next*, THE GUARDIAN (Jan. 19, 2017, 1:00 PM), <https://www.theguardian.com/politics/2017/jan/19/crisis-of-statistics-big-data-democracy>.

generally. Trust in data and statistics is a precondition to being able to resolve disputes about the world—they allow participants in policy debates to operate at least from a shared reality. Instead of resolving competing claims about the world, “statistics may actually be stoking them.”⁸⁰ Merely introducing empirical evidence can alienate people who have come to view statistics as elitist.

While total loss of faith in statistics may be unwarranted, the pall of uncertainty that surrounds our future has cast doubt on the legitimacy of some forms of reasoning (and their capacity to predict “true” facts about the world) and the experts who deploy them. Philosophers—since the Pyrrhonian skeptics of Ancient Greece—have questioned inductive reasoning’s ability to predict true facts about the world. David Hume famously critiqued inductive reasoning by claiming that induction relies on a “principle of uniformity of nature” which assumes that laws and processes governing nature have operated and will continue to operate in the same way. Because the uniformity of nature cannot be proven without reference to induction, inductive reasoning itself is suspect. The uncertain future created by financial crisis and climate change has undermined the predictive power of models that rely on historical data and assumptions about features of the world that once had the force of law. Our current crises have upended these fundamental assumptions leading us to wonder if the principle of uniformity still holds (and whether induction is still valid)

This idea is not entirely new—at least for climate change. Academics in both the humanities and sciences have suggested that we are living in an entirely new ecological epoch called the Anthropocene.⁸¹ “Dipesh Chakrabarty, a theory-minded historian at the University of Chicago, proposes that the Anthropocene throws into question all received accounts of human history, from Whiggish optimism to his own post-colonial postmodernism.”⁸² Whether or not we believe the Anthropocene is a useful theoretical concept or rightly indicates a radical break marking a new ecological era, our models have been thrown into question. Consider, for example, how recent super-storms like Sandy in 2012, or Hurricanes Harvey, Irma, and Maria in 2017, were incredibly low-probability events that nonetheless occurred. A *Washington Post* article examines this link:

⁸⁰ *Id.*

⁸¹ See Jedediah Purdy, *Anthropocene Fever*, AEON (Mar. 31, 2015), <https://aeon.co/essays/should-we-be-suspicious-of-the-anthropocene-idea>.

⁸² *Id.*

In the case of Superstorm Sandy in 2012, the storm's particular path—a beeline toward New Jersey, rather than out to sea—was abnormal. Atlantic hurricanes often “recurve” and flow away from the United States as they travel farther northward. Sandy did the opposite.

In one analysis, NASA's Timothy Hall and Columbia University's Adam Sobel found that Sandy's sharp turn toward New Jersey is expected to happen only once every 714 years, based on the history of Atlantic storms.

The result “implies either that the New York-New Jersey area simply experienced a very rare event (with climate change playing no significant role), or that a climate-change influence increased the probability of its occurrence,” they wrote in a 2013 study on Sandy's angle of approach.⁸³

A. Postmodernism and Pyrrhic Victories

The decline in respect for institutions and experts, and the concomitant rise of fake news, represents in part a counterrevolution against postmodernism. Simplifying greatly, the postmodern trend in assessing scientific and empirical methods, such as that exemplified by the sociology of scientific knowledge movement, sought (largely successfully) to undercut the traditional, positivist account of how we generate factual information about the world.⁸⁴ In the nineteenth and early twentieth centuries, science was seen as an unbiased method for interrogating the natural world. Observation by ever-improving instruments brought scientists continually closer—even if in halting fashion—to truth. One example is Imre Lakatos's work on the philosophy of mathematics.⁸⁵ For Lakatos, mathematics advanced through a gradual progression of proof, counterexample, and adjustment.⁸⁶ While mathematical theorems might never be complete, their history was one of ever-increasing accuracy. On this standard account, scientific

⁸³ Chris Mooney, *Karina. Sandy. Harvey. The Debate Over Climate and Hurricanes is Getting Louder and Louder.*, WASH. POST (Aug. 30, 2017), https://www.washingtonpost.com/news/energy-environment/wp/2017/08/30/katrina-sandy-harvey-the-debate-over-climate-and-hurricanes-is-getting-louder-and-louder/?utm_term=.a07fd40b81b0.

⁸⁴ See generally Steven Shapin, *Here and Everywhere: Sociology of Scientific Knowledge*, 21 ANN. REV. SOC. 289 (1995).

⁸⁵ IMRE LAKATOS, PROOFS AND REFUTATIONS: THE LOGIC OF MATHEMATICAL DISCOVERY (1976).

⁸⁶ *Id.*

knowledge might be wrong or mistaken, but it always had a clear referent: knowledge could be compared to the hard facts of the universe.⁸⁷ Issues such as culture or societal structure were irrelevant to scientific pursuits.⁸⁸

The sociology of scientific knowledge sought to debunk this view of scientific practice, which it regarded as hopelessly (perhaps even deliberately) naïve. As sociologist Steven Epstein describes it, this work “revealed the cultural shaping of that which came to be called scientific fact.”⁸⁹ Bruno Latour and Steve Woolgar, whose study of research at the Salk Institute for Biological Studies is a classic in the field, rejected a firm distinction between social and technical aspects of science, treating the divide as something to explain rather than an explanation.⁹⁰ The larger goal was to drag scientific conclusions off a positivistic pedestal and to subject them to the same sociological and cultural analysis that other forms of knowledge undergo.⁹¹ Latour and Woolgar set out a bold claim: “the very act of perception is constituted by prevalent social forces.”⁹² David Bloor, one of the founders of the Strong Programme in the discipline, took a correspondingly strong position: knowledge “consists of those beliefs which men confidently hold to and live by . . . [particularly] beliefs which are taken for granted or institutionalised, or invested with authority by groups of men.”⁹³ Scholars in this area sought to understand not only how scientists arrived at judgments regarding competing claims to truth, but also how they gained wider societal acceptance of those judgments.⁹⁴

The work of the sociology of scientific knowledge is easily misunderstood as a sort of complete relativism. Some of its adherents are not helpful on this score. For example, Paul Feyerabend wrote that “a unified theory of the physical world simply does not exist,”⁹⁵ and famously defended witchcraft⁹⁶.

⁸⁷ See Steven Epstein, *Rethinking Knowledge, Power, Materiality, and Nature*, 619 ANNALS 165, 167–68 (2008).

⁸⁸ See generally ROBERT K. MERTON, *THE SOCIOLOGY OF SCIENCE* (1973); BRUNO LATOUR & STEVE WOOLGAR, *LABORATORY LIFE: THE CONSTRUCTION OF SCIENTIFIC FACTS* 23 (2d ed. 1986) (describing how “the procedures and achievements central to scientists’ work become largely immune from sociological explanation”).

⁸⁹ Epstein, *supra* note 87, at 168.

⁹⁰ LATOUR & WOOLGAR, *supra* note 88, at 23–27.

⁹¹ See *id.* at 31 (stating that scientific creativity “does not refer to the special abilities of certain individuals to obtain greater access to a body of previously unrevealed truths; rather it reflects our premise that scientific activity is just one social arena in which knowledge is constructed”).

⁹² *Id.* at 33 (describing factors affecting discovery of pulsars).

⁹³ DAVID BLOOR, *KNOWLEDGE AND SOCIAL IMAGERY* 2–3 (1976).

⁹⁴ See, e.g., Epstein, *supra* note 87, at 168–69; BRUNO LATOUR, *SCIENCE IN ACTION: HOW TO FOLLOW SCIENTISTS AND ENGINEERS THROUGH SOCIETY* (1987).

⁹⁵ PAUL K. FEYERABEND, *FAREWELL TO REASON* 100 (1987).

⁹⁶ See ERIC OBERHEIM, *FEYERABEND’S PHILOSOPHY* 280 (2006).

However, scientific knowledge is not arbitrary, even for sociologists in this tradition. Rather, it is the culmination of a process in which the distinctions between sound observation and irrelevant error, between failed attempt and heroic advance, and between valid and invalid arguments are governed not merely by the data, but by science as a socially organized activity. What the sociology of scientific knowledge and similar disciplines seek to do is to focus attention on how the acceptance of certain information as accurate for scientists depends upon a social consensus in that community.

Postmodern critics have been surprised and then displeased to see their approach co-opted for causes of which they do not approve, such as climate change skepticism.⁹⁷ If knowledge is socially constructed, then climate scientists need not have the last word on whether the planet is warming, and indeed the data and theory used to show climate change can be attacked as biased.⁹⁸ Inconvenient facts do not have to be explained away; instead, they can be ignored or simply controverted. This approach can be employed as a stalling tactic, to undercut a scientific consensus, or as a counterattack, by constructing alternative claims and data.⁹⁹ Both sides of America's political spectrum bear responsibility for nourishing the postmodern challenge to empiricism, though it has become established much more firmly among political conservatives.¹⁰⁰ This assault on the construction of data about the world inherently undercuts gatekeepers: there is no longer hegemony for experts—or indeed anyone—about what constitutes a fact.

III. A CAUTIONARY NOTE ON INTERVENTIONS

Everybody complains about the weather, but nobody does anything about it.

– Charles Dudley Warner

⁹⁷ The anger is sometimes palpable. See, e.g., Chris Mooney, *Once and For All: Climate Denial is Not Postmodern*, DISCOVER (Feb. 28, 2011, 1:25 PM), <http://blogs.discovermagazine.com/intersection/2011/02/28/once-and-for-all-climate-denial-is-not-postmodern/>.

⁹⁸ See Bruno Latour, *Why Has Critique Run Out of Steam? From Matters of Fact to Matters of Concern*, 30 CRITICAL INQUIRY 225, 226–27, 231–32 (2004).

⁹⁹ See generally, e.g., Marcel Kuntz, *The Postmodern Assault on Science*, 13 EMBO REP. 885 (2012) (documenting controversy over genetically modified organisms).

¹⁰⁰ See, e.g., Shawn Otto, *A Plan to Defend Against the War on Science*, SCI. AM. (Oct. 9, 2016), <https://www.scientificamerican.com/article/a-plan-to-defend-against-the-war-on-science/>; Judith Warner, *Fact-Free Science*, N.Y. TIMES MAG. (Feb. 25, 2011), http://www.nytimes.com/2011/02/27/magazine/27FOB-WWLN-t.html?_r=2&ref=magazine.

Sometimes things should be left undone. This Essay seeks to prove that the problem of fake news is far more complex than typically portrayed; it is grounded in long-term political and sociological changes in America rather than in very recent technological or jurisprudential changes. Complex problems typically lack simple answers, and fake news is no exception. The last service this Essay hopes to provide is to throw some sand into the gears of reform, because fast or straightforward fixes will likely make matters worse.

A. Platform Problems

Changing social media platforms—via legal mandates, alterations to code, or both—cannot solve larger issues around distrust of gatekeepers and experts. But even if it could, critics of Facebook and Twitter and other currently popular platforms are long on rhetoric and short on practical advice. First, they rarely offer a principled approach to defining “fake news,” other than that it is whatever runs counter to their own beliefs. Evaluating the problem as “fake news for thee but not for me” does not help much; there is too much data uploaded to Facebook and its ilk for human referees to evaluate more than a miniscule fraction of it, and individual judgments are hard to reduce to a set of algorithmic rules.¹⁰¹ My views on the risk of brain cancer from cellular phones are grounded in science, whereas yours about the uncertainty of anthropogenic climate change are bunk.¹⁰² Everyone from President Trump to Denver Broncos general manager John Elway has their own opinion of what constitutes fake news, and that makes it impossible for platforms to craft a fix that will satisfy all comers.¹⁰³

Second, even if one can elucidate a workably concise definition of fake news, it is not clear how platforms can practically implement changes to how they handle

¹⁰¹ Cf. NAT HENTOFF, *FREE SPEECH FOR ME—BUT NOT FOR THEE* (1992). Facebook alone gets more than 600TB of new data uploaded to its servers each day. Pamela Vagata & Kevin Wilfong, *Scaling the Facebook Data Warehouse to 300 PB*, FACEBOOK: CODE (Apr. 10, 2014), <https://code.facebook.com/posts/229861827208629/scaling-the-facebook-data-warehouse-to-300-pb/>.

¹⁰² SEE BOB EGELKO, *BERKELEY CELL PHONE WARNING LAW UPHELD BY FEDERAL APPEALS COURT*, SFGATE (APR. 21, 2017, 4:41 PM), <http://www.sfgate.com/bayarea/article/Berkeley-cell-phone-warning-law-upheld-by-federal-11090621.php>; see generally Jane Bambauer, Jonathan Loe, & D. Alex Winkelman, *A Bad Education*, 2017 U. ILL. L. REV. 109 (2017).

¹⁰³ See, e.g., David Jackson & Donovan Slack, *Trump Slams “Fake News” and “Politically Motivated Ingrates” for Criticizing Puerto Rico Aid Efforts*, USA TODAY (Oct. 1, 2017, 8:55 AM), <https://www.usatoday.com/story/news/politics/2017/10/01/trump-resumes-defense-puerto-rico-disaster-response-apparent-attack-san-juan-mayor/720922001/>; *Broncos’ John Elway Refutes QB Trade Rumor with “Fake News” Tweet*, DENV. POST (Aug. 9, 2017, 9:32 AM), <http://www.denverpost.com/2017/08/09/john-elway-fake-news-tweet/>.

information—or, indeed, what those changes ought to be. As we argue elsewhere, the rubric “fake news” covers a number of species of false information.¹⁰⁴ To separate satirical *The Onion* articles from political hoaxes by Macedonian teenagers, one must assess inchoate, subjective concepts such as intent and motivation.¹⁰⁵ Software code is poor at this type of subjective analysis; indeed, there is a cottage industry that revolves around criticizing algorithms along precisely these lines.¹⁰⁶ Platforms that try to purge fake news will inevitably generate both false positive and false negative results, which will irritate users and empower critics. Removing erroneous stories can disempower users, particularly ones from marginalized communities.¹⁰⁷ Adding context, such as by tagging stories as fake news, may not affect new readers and may reinforce existing beliefs of adherents. Either course risks the loss of viewers and concomitant advertising revenues—an unattractive option for publicly-traded companies with shareholders to satisfy. Thus, it is not clear how companies ought to evaluate new information programmatically, nor how they should handle data deemed unreliable.

B. First Amendment Fears

Many critics argue that if diplomacy does not work to force platforms and others to fix fake news, government ought to be allowed to have recourse to the whip hand of legal regulation to force them to do so.¹⁰⁸ The obvious barrier is the First Amendment and its attendant statutes that protect expression against governmental intervention. While scholars still joust over whether search engines and social media sites should enjoy free speech protection, the reality is that the current Supreme Court is, and will likely continue to be, highly skeptical of regulation of expression. And, online publishers are immune from most civil and state criminal liability for content created by others based on

¹⁰⁴ See Mark Verstraete, Derek E. Bambauer, & Jane R. Bambauer, *Identifying and Countering Fake News* 5–8 (Ariz. Legal Studies Discussion Paper No. 17-15, 2017), <https://ssrn.com/abstract=3007971>.

¹⁰⁵ *Id.*

¹⁰⁶ See, e.g., CATHY O’NEIL, *WEAPONS OF MATH DESTRUCTION* (2016); FRANK PASQUALE, *THE BLACK BOX SOCIETY* (2015); Solon Barocas & Andrew D. Selbst, *Big Data’s Disparate Impact*, 104 CAL. L. REV. 671 (2016); Ryan Calo, *Digital Market Manipulation*, 82 GEO. WASH. L. REV. 995 (2014).

¹⁰⁷ See, e.g., Julia Angwin & Hannes Grassegger, *Facebook’s Secret Censorship Rules Protect White Men From Hate Speech But Not Black Children*, PROPUBLICA (June 28, 2017), <https://www.propublica.org/article/facebook-hate-speech-censorship-internal-documents-algorithms>.

¹⁰⁸ Cf. John Herrman, *What if Platforms Like Facebook Are Too Big to Regulate?*, N.Y. TIMES MAG. (Oct. 4, 2017), <https://www.nytimes.com/2017/10/04/magazine/what-if-platforms-like-facebook-are-too-big-to-regulate.html>.

federal telecommunications law.¹⁰⁹ While the political right is beginning to warm to the idea of regulating Internet intermediaries, creating the potential for an alliance of convenience with critics from the left, legislative changes that put platforms at greater risk of liability still face a difficult path.¹¹⁰

The solution for some critics, such as Richard Hasen (in this volume), is to reconfigure First Amendment jurisprudence. Hasen is suitably cautious about advancing the particulars of this renovation,¹¹¹ but we are skeptical about such tinkering, for a number of reasons. The first is that speech regulation has an ugly history; it tends to be deployed to suppress minority and marginalized communities, rather than to defend them against abuses.¹¹² It is a dangerous weapon to deploy; today's pressing necessity may seem far less urgent in retrospect, and governments may take advantage of those seeming needs to forcibly quiet critics.¹¹³ Second, the anti-subordination approach to the First Amendment rests upon a number of assumptions that are practically and logically questionable.¹¹⁴ It posits that political actors (the legislature and the executive) will act to reduce the speech of politically powerful groups and to increase the speech of marginalized ones. The risk, then, comes from a

¹⁰⁹ 47 U.S.C. § 230 (2012); see also 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 LOYOLA L.A. L. REV. 373, 453, 456 (2010).

¹¹⁰ See generally April Glaser, *The Internet of Hate*, SLATE (Aug. 30, 2017), <https://slate.com/technology/2017/08/the-alt-right-wants-to-build-its-own-internet.html> (describing calls from conservative leaders to regulate intermediaries); see also Eric Goldman, *Senate's "Stop Enabling Sex Traffickers Act of 2017"—and Section 230's Imminent Evisceration*, TECH. & MKTG. LAW BLOG (July 31, 2017), <http://blog.ericgoldman.org/archives/2017/07/senates-stop-enabling-sex-traffickers-act-of-2017-and-section-230s-imminent-evisceration.htm>.

¹¹¹ Hasen, *supra* note 6, at 222 (recognizing potential First Amendment challenges to laws combatting fake news, yet also arguing that the First Amendment doctrine should not bar “carefully drawn laws which would require social media and search companies such as Facebook and Google, to provide certain information to let consumers judge the veracity of posted details”). However, with free speech jurisprudence, the devil is definitely in the details. See William Safire, *On Language: Who's in Those Details*, N.Y. TIMES (July 30, 1989), <http://www.nytimes.com/1989/07/30/magazine/on-language-who-s-in-those-details.html> (tracing etymology of phrase); see also Jane R. Bambauer & Derek E. Bambauer, *Information Libertarianism*, 105 CAL. L. REV. 335 (2017).

¹¹² See Bambauer & Bambauer, *supra* note 111, at 343–44.

¹¹³ See Derek E. Bambauer, *Backwards and Forwards*, in Ronald K.L. Collins, *FAN 156 (First Amendment News) Special Post: The Espionage Act at the 100 Year Mark: Commentaries by Bambauer, Chemerinsky, Stone & Vladeck*, CONCURRING OPS. (June 15, 2017), <https://concurringopinions.com/archives/2017/06/fan-156-first-amendment-news-special-post-the-espionage-act-at-the-100-year-mark-commentaries-by-bambauer-chemerinsky-stone-vladeck.html>.

¹¹⁴ On the anti-subordination approach, see Charles R. Lawrence III, *Crossburning and the Sound of Silence: Antisubordination Theory and the First Amendment*, 37 VILL. L. REV. 787 (1992); Kathleen M. Sullivan, *Two Concepts of Freedom of Speech*, 124 HARV. L. REV. 143 (2010); Kenneth L. Karst, *Equality as a Central Principle in the First Amendment*, 43 U. CHI. L. REV. 20 (1975).

judiciary that could invalidate these speech regulations based on First Amendment doctrine—even though the judiciary is generally viewed as a countermajoritarian check.¹¹⁵ This prediction is bizarrely anti-majoritarian: it posits that majority political groups will intentionally work to benefit minority ones—a prediction that runs counter to logic and experience. Anti-subordination concentrates on the wrong actors and reaches the wrong conclusions. It holds that if judges, especially federal judges, would only see the light, then desirable information regimes become possible. This at once proves too much and too little: too much, because it assumes that admittedly marginalized groups will have success in achieving legislation that advances their interests (which seems particularly implausible for progressives at present in light of the structural disadvantages they face in national politics); and too little, because if these groups can influence the political process, then presumably that process will produce like-minded judges in time, so the need for anti-subordination evaporates. Moreover, even strict scrutiny analysis allows sufficiently well-justified and well-tailored speech rules to survive; anti-subordination goals might prove to be a compelling interest that warrants governmental intervention.¹¹⁶ And, this approach has to assume that judges can and do see through unwarranted attempts to claim the mantle of a subordinated group. Political conservatives have begun to do exactly this—in Silicon Valley, in Washington D.C., and elsewhere.¹¹⁷ Climate change skeptics are a minority, but hardly a subordinated one. If any of these assumptions founder, the anti-subordination approach runs the risk of generating results that undercut its goals.

Finally, widening the ambit of governmental regulation of information could generate adverse consequences internationally. American rules that restrict speech reduce the country's ability to combat censorship by other nations, even

¹¹⁵ See ALEXANDER BICKEL, *THE LEAST DANGEROUS BRANCH: THE SUPREME COURT AT THE BAR OF POLITICS* (1986).

¹¹⁶ Cf. *Red Lion Broad. Co. v. FCC*, 395 U.S. 367, 400–01 (1969) (upholding FCC Fairness Doctrine's equal times requirement for radio broadcasters); *Holder v. Humanitarian Law Project*, 561 U.S. 1, 40 (2010) (upholding restriction on material support to designated terrorist groups, including via speech, under strict scrutiny); *Williams-Yulee v. Fla. Bar*, 135 S. Ct. 1656, 1665 (2015) (“A State may restrict the speech of a judicial candidate only if the restriction is narrowly tailored to serve a compelling interest.”).

¹¹⁷ See Kate Conger, *Exclusive: Here's The Full 10-Page Anti-Diversity Screeed Circulating Internally at Google [Updated]*, GIZMODO (Aug. 5, 2017, 4:30 PM), <https://gizmodo.com/exclusive-heres-the-full-10-page-anti-diversity-screed-1797564320>; Hans Bader, *Another Court Ruling Confirms IRS Illegally Targeted Tea Party and Conservative Groups*, COMPETITIVE ENTER. INST. (Nov. 21, 2016), <https://cei.org/blog/another-court-ruling-confirms-irs-illegally-targeted-tea-party-and-conservative-groups>.

when other states' efforts are far more heavy-handed and wide-ranging.¹¹⁸ Efforts to coordinate an international cybersecurity regime have foundered in part on Russia's insistence that such a compact address "information war," which that country defines to include threats from unwanted political messages.¹¹⁹

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¹¹⁸ See Derek E. Bambauer, *Orwell's Armchair*, 79 U. CHI. L. REV. 863, 897–98; Derek E. Bambauer, *Conundrum*, 96 MINN. L. REV. 584, 672 (2011).

¹¹⁹ Tom Gjelten, *Seeing the Internet as an "Information Weapon"*, NPR (Sept. 23, 2010, 12:00 AM), <http://www.npr.org/templates/story/story.php?storyId=130052701>.