

The Internet and Engaged Citizenship



David Karpf

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Please direct inquiries to:
American Academy of Arts & Sciences
136 Irving Street
Cambridge, MA 02138
Telephone: 617-576-5000
Fax: 617-576-5050
Email: aaas@amacad.org
Web: www.amacad.org

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Introduction

The Internet is everywhere. Years ago, it was limited to desktop computers, synonymous with the static and whirl of a connecting modem. Today it is in our pockets, on our wrists, in our household appliances, and on the multitude of screens that we interact with daily. The old dividing line between online and offline has dissolved, taking with it simplistic comparisons between online and offline civic and political behavior. Questions regarding the state of engaged citizenship in the United States in 2019 inevitably become tied up with digital media, because digital media are now baked into how we learn about public affairs, voice our opinions, argue with our neighbors, and build political power. Civic participation, political polarization, public misinformation, and public accountability all have a digital element to them.

Is the Internet hurting or helping civic engagement and political participation? Who does it empower, and who does it disenfranchise? Is it leaving the public better or worse informed? Is it damaging media and political institutions, or promoting innovation and renewal? Despite decades of scholarship on the Internet and civic engagement, we have arrived at surprisingly few stable findings. Two limiting factors—the pace of Internet time and the proprietary data gap—have repeatedly gotten in the way.

This paper discusses these two limitations, and then details five thematic areas that touch on major trends in the state of knowledge within the field. The purpose of the paper is to make clear how the medium has changed over the decades, to highlight how today's Internet in civic life differs from the civic Internet of decades' past, and to capture the key puzzles that will drive research in the near future.

Why Understanding the Digital Citizen Proves So Difficult

Somehow, the Internet has managed to remain *new* for three decades. The Internet was on the cusp of transforming civil society in 1995 when Nicholas Negroponte wrote *Being Digital*,¹ and in 2001 when Cass Sunstein wrote *Republic.com*,² and in 2004 when Joe Trippi wrote *The Revolution Will Not Be Televised*,³ and in 2008 when Clay Shirky wrote *Here Comes Everybody*.⁴ It remains new today, even as it has been integrated into the rhythms of daily life. Every U.S. presidential election since 1996 has been dubbed “The Internet Election.”⁵ The Internet has repeatedly promised to transform government, to open up a new era of transparency and accountability, and to disrupt journalism (for better or for worse). Even as the medium has achieved near-universal adoption among the American public, there is a pervasive sense that the Internet remains confounding for everyday citizens.

There are some striking similarities between the uncertainties, hopes, and fears that were expressed decades earlier and those that are still voiced today. The first generation of “digital citizens” are now in their thirties and forties. Traditional news media organizations have been in crisis for over a decade. Political polarization and the coarsening of civic discourse have been looming threats since at least the turn of the millennium. Why do we keep returning to these same concerns? Why has it been so hard to generate a robust, stable understanding of the Internet’s role in civic life?

1. Nicholas Negroponte, *Being Digital* (New York: Knopf, 1995).
2. Cass Sunstein, *Republic.com* (Princeton, N.J.: Princeton University Press, 2001).
3. Joe Trippi, *The Revolution Will Not Be Televised: Democracy, the Internet, and the Overthrow of Everything* (New York: Harper-Collins, 2004).
4. Clay Shirky, *Here Comes Everybody: The Power of Organizing Without Organizations* (New York: Penguin Press, 2008).
5. Jennifer Stromer-Galley, *Presidential Campaigning in the Internet Age* (New York: Oxford University Press, 2014).

The Pace of Internet Time

One consistent quality of the Internet is how it continues to change. The Internet of 2019 is a different medium than the Internet of 2009 or 1999. We moved from desktop portals, onramps to the “infobahn,” to wifi-connected laptops, producing blogs and wikis, and then moved further still to mobile devices and a social sharing economy that is dominated by a few quasi-monopolistic platforms that algorithmically shape what we see and how we interact. This pace of change renders the Internet substantively different from previous innovations in communications technology. When the telephone, the radio, and the television were diffusing through society, they were stable technologies—a television, telephone, or radio purchased in 1950 functions in much the same way as a television, telephone, or radio purchased in 2000. But the Internet of 2019 bears only a faint resemblance to the Internet of the 1990s.

The sheer pace of “Internet Time” frustrates our attempts to assess conclusively the Internet’s impact on civic and political engagement. By the time researchers believe we have a handle on a digitally enabled social phenomenon, the digital environment has changed, and social phenomena have changed as well. The *ceteris paribus* assumption (all else being equal) undergirding virtually all research methods is routinely violated by the Internet’s constant redevelopment.⁶ Kevin Munger terms this a problem of “temporal validity,” in which the findings of online social science research can be rendered suspect solely by the passage of time.⁷

As one example, let’s think back to Robert Putnam’s warning in *Bowling Alone* that the Internet was contributing to a sharp decline in social capital.⁸ To paraphrase, Putnam was concerned that citizens were increasingly anchored to their desktop monitors instead of going outside and interacting with their communities. Later researchers gathered evidence running contrary to this claim. Multiple studies showed that the Internet often augments offline social ties rather than replacing offline relationships. We cannot state with confidence that these findings refute Putnam—he might have been empirically correct at the time his book was published. The Internet of the 1990s, after all, was accessed through clunky desktop

6. David Karpf, “Social Science Research Methods in Internet Time,” *Information, Communication & Society* 15 (5) (2012): 636–661, <http://dx.doi.org/10.1080/1369118X.2012.665468>.

7. Kevin Munger, “The Limited Value of Non-Replicable Field Experiments in Contexts with Low Temporal Validity,” *Social Media + Society* 5 (3) (2019), <https://doi.org/10.1177/2056305119859294>.

8. Robert Putnam, *Bowling Alone: The Collapse and Revival of American Community* (New York: Simon & Schuster, 2000).

computers that tied up the phone lines. The Internet of the 2000s was more portable. You could talk on the phone or attend a community event while staying online. Instead of directly refuting Putnam's thesis, these later studies temporally bound his claims.

This issue is further exacerbated by the plodding pace of academic publishing. It still takes years for academic research to move through the stages of research design, institutional approval, funding, data collection, data analysis, and multiple rounds of rigorous peer review. While there have been marginal improvements (many academic journals now make preprint articles available as soon as final revisions are submitted, rather than embargoing for months until the print version is published), our traditional system of academic knowledge production is fundamentally slow-moving in nature. Internet Time and the problem of temporal validity leave social scientists continually questioning prior research findings, preventing the smooth aggregation of theories and hypotheses that typically take place during the formation of a new research paradigm.

Meta-analyses of peer-reviewed research on the Internet and civic/political engagement have painted an unstable, conflicting picture. Shelley Boulianne has conducted a series of meta-analyses, revealing that Internet use is usually found to have a small-but-positive effect on traditional, off-line forms of participation.⁹ Bruce Bimber and Lauren Copeland, however, looked through data from the American National Election Studies from 1996, 1998, 2000, 2004, and 2008 and found no evidence of a robust relationship over time.¹⁰ The Internet's effect on civic and political behavior depends, it seems, both on how the terms are defined, how they are measured, *and* what year the study is conducted.

A Brief History of Internet Time

It is helpful to demarcate the history of the Internet into four periods. Over the past few decades, we have moved sequentially through four dominant metaphors that have shaped public understanding of the Internet's role in civic life. Each of these metaphors is, necessarily, incomplete. The medium has always been more complex than any simple story might convey. Yet each has nonetheless exerted a type of force, defining how we collectively

9. Shelley Boulianne, "Does Internet Use Affect Engagement? A Meta-Analysis of Research," *Political Communication* 26 (2) (2009): 193–211; and Shelley Boulianne, "Twenty Years of Digital Media Effects on Civic and Political Participation," *Communication Research* (2018), <https://doi.org/10.1177/0093650218808186>.

10. Bruce Bimber and Lauren Copeland, "Digital Media and Traditional Political Participation Over Time in the U.S.," *Journal of Information Technology & Politics* 10 (2) (2013), <https://doi.org/10.1080/19331681.2013.769925>.

view and speak about the Internet. As our metaphors have changed, so too have the problems and solutions that the Internet is associated with.

First is the metaphor of the “Virtual Community.” This originated in the 1980s, prior to the creation of the World Wide Web. It was promoted and disseminated by communitarian journalist Howard Rheingold in his influential book, *The Virtual Community: Homesteading on the Electronic Frontier*,¹¹ and further documented in journalist Katie Hafner’s book *The Well: A Story of Love, Death & Real Life in the Seminal Online Community*.¹² The Internet of the 1980s was not heavily populated, but it did feature robust Bulletin Board Services (BBSs), most famous among them being the Whole Earth ‘Lectronic Link (The WELL). These BBS communities featured both inspiring community behavior and rational critical debate as well as troubling flame wars and trolling behavior. They demonstrated, at much smaller scale, many of the same civic behaviors we witness on social media today. They also helped to define the civic potential of digital networks, inspiring many of the early technologists, public intellectuals, and investors who would go on to popularize the increasingly mass medium.¹³

The second period is the infobahn, or the “information superhighway.” This metaphor emerged in the early 1990s, alongside early plans for the National Information Infrastructure and the commercialization of the Internet. The Internet of the 1990s was defined by static web pages (Geocities), early search engines (Mosaic and Netscape), and walled-garden Internet portals like AOL. Early government websites were conceived as informational resources—“brochureware” or online billboards that could serve as tools for early Netizens to learn more about public policy and public affairs. The infobahn metaphor was often coupled with buoyant optimism about the potential of digital citizenship, empowering an engaged public that could become better-informed than ever before.¹⁴

The third era is that of Web 2.0 and online collaboration. After the dotcom bubble burst, renewed excitement about digital media clustered around the social web. The Internet of the 2000s was defined by what Yochai

11. Howard Rheingold, *The Virtual Community: Homesteading on the Electronic Frontier* (New York: Addison Wesley, 1993).

12. Katie Hafner, *The Well: A Story of Love, Death & Real Life in the Seminal Online Community* (New York: Carroll & Graf, 2001).

13. Fred Turner, *From Counterculture to Cyberculture: Stewart Brand, the Whole Earth Network, and the Rise of Digital Utopianism* (Chicago: University of Chicago Press, 2006).

14. Jon Katz, “Birth of a Digital Nation,” *WIRED* magazine 5 (4) (April 1997), <https://www.wired.com/1997/04/netizen-3/>.

Benkler terms “commons-based peer production”¹⁵ and what Henry Jenkins terms “convergence culture” or “participatory culture.”¹⁶ Websites like Wikipedia, Craigslist, and the early blogosphere all demonstrated the complex, collaborative endeavors that citizens could potentially co-produce online. As online publishing platforms became more user-friendly, connection speeds got faster, and data storage became cheaper, citizens appeared to be taking a much more active role in civic, cultural, and political affairs. The Web 2.0 metaphor is also frequently paired with Clayton Christensen’s theory of disruptive innovation.¹⁷ Wikipedia disrupted the encyclopedia industry; online file-sharing disrupted the music business; Craigslist and the blogosphere disrupted journalism; the Howard Dean, Ron Paul, and Barack Obama presidential campaigns disrupted the political parties. Thus Web 2.0 as a metaphor was not just focused on what online communities could collectively produce, but also gestured toward what they might soon replace.

Finally, there is the notion of the platform society.¹⁸ The Internet of the 2010s has been increasingly defined by smartphone usage and the growth of social media. This has led to increased attention paid to the major platforms themselves. Facebook, Amazon, Twitter, and Google are now no longer treated as the neutral intermediaries for public expression, innovation, and collaboration that they were during the Web 2.0 era. They instead have emerged as powerful gatekeepers, invested with both our hopes and our fears for civil society. Talk of disruption has been replaced by talk of regulation and monopoly.

These four perspectives on the role of the Internet in civic life have been layered atop one another. You can still find virtual communities today, and major collaborative sites like Reddit have much of the spirit of the old Bulletin Board Systems. Every company, campaign, and civic organization has a website. There is a wealth of information online (rendered accessible through Google search) for those who are motivated to find it. Peer production and collaboration still abounds, particularly among young people and within cultural industries. It is not the case that the eras of virtual

15. Yochai Benkler, *The Wealth of Networks: How Social Production Transforms Markets and Freedom* (New Haven, Conn.: Yale University Press, 2006).

16. Henry Jenkins, *Convergence Culture: Where Old and New Media Collide* (New York: New York University Press, 2008).

17. Clayton M. Christensen, *The Innovator’s Dilemma* (New York: Harper Business Books, 1997).

18. José van Dijck, Thomas Poell, and Martijn de Waal, *The Platform Society: Public Values in a Connective World* (New York: Oxford University Press, 2018).

communities, or brochureware, or Web 2.0 ended. Rather, those eras *faded*, replaced by different tools, different behaviors, and different problems.

The challenge for producing stable public knowledge, then, is that the Internet has both seeped into so much of public life and has also been continually redefined. It manages to be so many things, all at once.

The Proprietary Data Gap

A second problem that has plagued public scholarship on the Internet and civic/political life is the substantial gap between public and private data.

If there is one thing that we have undoubtedly learned from the Cambridge Analytica scandal in 2017–2018, it is that the major social media platforms collect an overwhelming amount of data on public behavior. Facebook has a record of every click, every view, every share, every like. Google, Amazon, Netflix, and every other major platform collect extraordinary amounts of data as well.

The sheer amount of data that is collected by the major platforms has helped to fuel enthusiasm for “big data” analysis. In 2009, researchers working for Google published a paper in *Nature* on the Google Flu Trends study.¹⁹ These researchers had analyzed Google search data and used it to predict flu outbreaks more quickly and accurately than the Center for Disease Control. Civic-minded and politically focused researchers have pointed to this study as evidence of all the social behavior that can now be more effectively assessed through online trace data. In their book, *Political Turbulence*, Helen Margetts and coauthors write, “Every participatory act, however small, carried out on social media leaves a digital imprint. So mobilizations produce digital trails that can be harvested to generate large-scale data, which can be retrieved and analysed with software, text- and data-mining tools, and network analysis.”²⁰

The promise of online data abundance has turned out to be something of a mirage, however. Every participatory act may leave a digital imprint, but that imprint is only visible to a select set of companies. It is heavily guarded, thinly regulated, and protected with the force of law.²¹ There is a

19. Jeremy Ginsberg, Matthew H. Mohebbi, and Rajan S. Patel, et al., “Detecting Influenza Epidemics Using Search Engine Query Data,” *Nature* 457 (2008): 1012–1014, <https://www.nature.com/articles/nature07634>.

20. Helen Margetts, Peter John, Scott Hale, and Taha Yasseri, *Political Turbulence: How Social Media Shape Collective Action* (Princeton: Princeton University Press, 2015), 22.

21. Frank Pasquale, *The Black Box Society: The Secret Algorithms That Control Money and Information* (Cambridge, Mass.: Harvard University Press, 2015); and Cathy O’Neil, *Weapons of Math Destruction: How Big Data Increases Inequality and Threatens Democracy* (New York: Broadway Books, 2016).

substantial gap between the proprietary data that Facebook, Google, and the other major platforms hold and the public data that researchers have access to.

The aftermath of the Cambridge Analytica scandal serves as a helpful example. Jonathan Albright, Research Director at Columbia University's Tow Center for Digital Journalism, is among the most prominent researchers to study that issue. Albright's approach to studying digital influence operations has revolved around attempting to reverse-engineer online propaganda networks based on the limitations of publicly available data. Another researcher, David Carroll, Associate Professor at Parsons School of Design at The New School, sought to gain insights into Cambridge Analytica's influence operations through strategic lawsuits aimed at forcing the company to reveal its data practices. A third researcher, Emma Briant, Senior Lecturer in Journalism at the University of Essex, primarily focused on interviewing former Cambridge Analytica staffers. All three researchers have approached the topic of digital propaganda by crafting indirect approaches that can partially bridge the knowledge gap between public and proprietary data. Facebook and Google's extensive data are only available to select academics, under select circumstances. Public data are always far more limited.

At the same time, the major tech platforms have increasingly begun to employ social science researchers. Both Facebook and Google employ political science and communication Ph.D.s, along with lawyers and policy analysts. These social scientists gain access to proprietary data, but the tradeoff is that they primarily pursue applied research questions that are of benefit to the companies, and that they can only publish their research in exceptionally rare circumstances. Incidents like the 2014 "Facebook emotional contagion" study by Kramer and colleagues have only served to dampen the companies' enthusiasm for open collaboration with academic researchers. Kramer and coauthors collaborated with Facebook on an experimental tweak to the newsfeed algorithm. Some users received a higher dosage of negatively valenced Facebook posts from their friend networks; other users received a higher dosage of positively valenced Facebook posts. They discovered a miniscule but statistically significant effect on users' posting behavior. If you see sad posts in your newsfeed, you become slightly more likely to perform sadness in your own postings; if you see happy posts in your newsfeed, you become slightly more likely to perform happiness. There was immense public backlash when this study was published. The company had secretly manipulated its users' emotions without asking for their informed consent. The academic researchers who had partnered with the company had skirted traditional research ethics protocols. The irony in this case is that, since Facebook's newsfeed is algorithmically generated, the company is in effect *always* slightly manipulating its users'

emotions. The company is constantly refining its algorithms based on proprietary held user data. The difference in this case was that the company had made its experimental findings public.

There are two natural consequences of the proprietary data gap. First, the research community has habitually fallen into a modified version of the parable of the drunkard's search. (A drunkard frantically searching for his keys under a lamppost. "Did you lose your keys here," you ask. "No, I lost them across the street," he mumbles. "Then why are you searching under this lamppost," you reply. "Well, the light is much better over here.") We produce mountains of Twitter and website research. We produce molehills of Facebook research. We produce practically no research on email, Reddit, or the algorithmic choices of the major platforms themselves. And this is entirely because Twitter has, for several years, made its data more easily accessible to researchers than Facebook. Websites can be crawled and scraped, while email lists are closely guarded by civic and political organizations. In the era of big data, most of the research community has flocked to the types of big data that are most accessible.

The second natural consequence is that, at least in the areas of civic and political behavior, the gap between proprietary and public data is immense and practically unbridgeable. Social scientists at Facebook, Google, and the major political campaigns have access to information that the broader research community can never analyze. It is particularly difficult to produce stable public knowledge about the Internet's impact on civic and political behavior because the data that would form the foundation of such research are proprietary held.

The Internet and Engaged Citizenship, Circa 2019

The two animating tensions in the previous section have prevented the slow aggregation of stable findings that is typical of paradigmatic, normal-science approaches. As a result, the same tenacious problems have been repeatedly revisited over the years. In this section, I will outline the state of research in five relevant areas: (1) political polarization/echo chambers, (2) the quiet decline of Web 2.0, (3) trolling and malicious behavior, (4) digital pathways to participation, and (5) digital democracy and the “field of dreams fallacy.”

The Internet and Political Polarization

There is a brief but often-quoted passage in Nicholas Negroponte’s 1995 book, *Being Digital*, in which he imagines a future where digital newspapers give readers only the tailored news that they most want to see.

What if a newspaper company were willing to put its entire staff at your beck and call for one edition? It would mix headline news with “less important” stories relating to acquaintances, people you will see tomorrow, and places you are about to go to or have just come from. It would report on companies you know. In fact, under these conditions, you might be willing to pay the *Boston Globe* a lot more for ten pages than for a hundred pages, if you could be confident that it was delivering you the right subset of information. You would consume every bit (so to speak). Call it *The Daily Me*.²²

Negroponte’s book was published in January 1995, the same month that Newt Gingrich was elected Speaker of the House. These two events are unrelated to one another, but they represent a temporal happenstance that has kept the idea of *The Daily Me* at the center of public inquiry. On the grand scale, the correlation is undeniable. Whether through historical accident or through some direct causal mechanism, the age of mass connectivity has coincided with an age of rampant and growing political polarization. By all available measures, partisan identification has grown

22. Negroponte, *Being Digital*, 156.

stronger, Congress passes fewer laws, moderation and bipartisanship have virtually vanished. This is not endemic to the Trump administration. It was also a pressing concern during the Obama years, the Bush years, and the Clinton years. As we have grown more digital, we have also grown more polarized. Scholars and public intellectuals have naturally gravitated toward questions of whether this is a causal relationship or just historical happenstance.

Negroponete's imagined "Daily Me" appeared at the height of the info-bahn Internet. It was an Internet dominated by static web pages and AOL chatrooms. It was also a pre-Google Internet, a medium in which searching for relevant and timely information online was an ever-present problem. The Daily Me can thus be read in context as an imagined solution to the troubles of the World Wide Web in its early years.

In the aftermath of the dotcom crash, Cass Sunstein, in his 2001 book *Republic.com*, revisited Negroponete's "Daily Me" (Sunstein would frequently revisit the topic in later books, including *Infotopia*, *Republic.com 2.0*, and *#Republic*.) This was during the waning days of the imagined "information superhighway," and Sunstein instead drew attention to the potential negative impacts of partisan news selection and online communities for civil society. Sunstein warned that partisan news selection could lead to "information cocoons" and "cyber-balkanization." In his later books, published at the height of the Web 2.0 phenomenon, he highlighted how the blogosphere could exacerbate these problems, robbing civil society of the shared baseline of social facts that are a necessary precursor to effective deliberation. Sunstein saw partisan blogs as vectors for polarization, echo chambers that could intensify partisan opinions and fuel partisan hatred.

Eli Pariser's 2011 book, *The Filter Bubble*, essentially updates Sunstein's warning for the platform era.²³ Where Sunstein worried about the dangers of intentional self-segregation into echo chambers, Pariser warns that we may be placed into these echo chambers through algorithmic inference. Now that we have inherited an Internet that is dominated by Google, Facebook, and a handful of other platforms, there is an increased risk that our search results and newsfeed rankings will be algorithmically shaped to reinforce our existing beliefs and revealed preferences—what we click on, what we share, what we like. News and political perspectives from the other side are, from an engineering standpoint, inefficient: They are stories that are less likely to be clicked, liked, and shared. Google and Facebook, in Pariser's rendering, might unintentionally produce the cyber-balkanization that Sunstein warned about, simply through overlooking civic and

23. Eli Pariser, *The Filter Bubble: How the New Personalized Web Is Changing What We Read and How We Think* (New York: Penguin Press, 2011).

political issues and treating public knowledge as an engineering problem with an engineering solution.

Markus Prior introduced a separate but related concern in his 2007 book, *Post-Broadcast Democracy*.²⁴ Prior examined the implications for democratic participation of expanding the range of entertainment choices available to citizen-consumers. Focusing primarily on the spread of cable television, Prior offers compelling evidence of a growing political knowledge gap, not between left and right, but between the politically motivated and the non-politically motivated. In short, Prior suggests that in the broadcast television era, all citizens effectively had the same diet of political information. You received 30 minutes of public information during the nightly newscast, and you had access to the daily newspaper. Apolitical Americans would incidentally learn about public affairs by scanning headlines or watching the news. Political “news junkies” had scant opportunities to consume more political news as entertainment. Expanding the entertainment choice environment reduced incidental learning among the apolitical, and increased political knowledge among committed partisans. Prior warns that this trend will only be exacerbated by the Internet, potentially creating a vicious cycle in unequal civic participation.

But despite these well-articulated concerns, there has been a surprising absence of data in support of the Filter Bubble and echo chamber hypotheses. Where researchers have looked for evidence of either self-selected or algorithmically selected personalization of political news, they have found very little.²⁵ Where researchers have looked for evidence of decreasing incidental exposure to online political news, they have often found the opposite.²⁶ It seems, particularly on Facebook and Twitter, that political stories spread far and wide (the veracity of those stories is sometimes another matter). Rasmus Kleis Nielsen has gone so far as to label present-day proponents of these theses “media change deniers,” arguing that they are “directly contradicted by a growing consensus in the best available

24. Markus Prior, *Post-Broadcast Democracy: How Media Choice Increases Inequality in Political Involvement and Polarizes Elections* (Princeton, N.J.: Princeton University Press, 2007).

25. Frederik J. Zuiderveen Borgesius, Damian Trilling, and Judith Möller, et al., “Should We Worry about Filter Bubbles?” *Internet Policy Review* 5 (1) (2016), <https://policyreview.info/articles/analysis/should-we-worry-about-filter-bubbles>.

26. Leticia Bode, “Political News in the News Feed: Learning Politics from Social Media,” *Mass Communication & Society* 19 (1) (2016): 24–28; and Richard Fletcher and Rasmus Kleis Nielsen, “Are People Incidentally Exposed to News on Social Media? A Comparative Analysis,” *New Media & Society* 20 (7) (2017): 2450–2468, <https://doi.org/10.1177/1461444817724170>.

peer-reviewed scientific research.”²⁷ According to all available evidence, the impact of Filter Bubbles on mass society is negligible at best.

There is, however, a disconnect between the levels of analysis at work in this area. The Filter Bubble/echo chamber thesis has primarily been tested at the mass behavioral level—observing how the average citizen encounters news and civic information. But the increases in political polarization have been especially pronounced at the elite, institutional, and organizational layers of society. We can see increased polarization in Congressional behavior. We can see it through the contentious politics of social movements. We can see it in partisan media (online, cable, and broadcast). The Internet does play a role in changing the incentive structures for these forces, even if hasn’t been through the predicted phenomenon of cyber-balkanization. Partisan news caters to niche audiences that can develop more easily today than in the broadcast era. Social movement networks can mobilize more quickly, amplifying dissent and increasing the distance between the politically attentive and the disengaged. Politicians have observed that performative obstruction is better for fundraising than quiet compromise.

The proprietary data gap is also a lurking concern. On the basis of publicly accessible data, the Filter Bubble/echo chamber/Daily Me concern has been overstated at the level of mass political behavior. Our information cocoons simply are not as tightly constructed as one might fear. More granular insights are possible for researchers employed by the platforms themselves, but such research is rarely if ever published. There are several questions of deep significance that only researchers with access to the data generated by those platforms can answer:

- What civic and political values are explicitly or implicitly inscribed into the algorithms that drive our Google search results, YouTube video recommendations, and Facebook newsfeed appearances?
- How have the companies’ approaches to political and civic content changed over the years?
- What data do they pay attention to, what outcomes do they measure, and what stakeholders influence their decisions?

Certainly, there is a *theoretical* version of the web that is filled with echo chambers and Filter Bubbles. The empirical research community has repeatedly failed to identify such patterns in existing public data, but we

27. Rasmus Kleis Nielsen, “Media change deniers: Why debates around news need a better evidence base—and how we can get one,” *Nieman Lab*, May 2018, <https://www.niemanlab.org/2018/05/media-change-deniers-why-debates-around-news-need-a-better-evidence-base-and-how-we-can-get-one/>.

also lack access to proprietary data and to the algorithmic decisions that the platforms have made in response to that proprietary data.

As a result, this fear keeps reoccurring, echoing back through Internet time to the early days of the World Wide Web. Despite demonstrably increasing polarization at the more organized layers of politics and civil society, evidence that there is a causal link between the changing online information environment and elite polarization has not materialized, but theorists continue to posit a relationship, public intellectuals continue to remark upon the temporal correlation, and proprietary data remain largely inaccessible.

Alongside this focus on Filter Bubbles and cyber-balkanization at the mass level, there has been a parallel trend that focuses on the smaller subset of *engaged* citizens—the segment of society that not only pays close attention to political and civic affairs, but also actively participates. The following sections will narrow the field of focus to the institutional and organizational layers of American society.

Digital Pathways for Participation

On January 21, 2017, the day after Donald Trump was inaugurated President of the United States, several million people took to public spaces around the world to protest as part of the Women’s March. The Women’s March had digital origins. The initial call-to-action was posted on Facebook, organized through online and offline social networks, and then spilled over into the streets, dramatically altering the contours of political discourse. Likewise, Indivisible.org now boasts thousands of local groups that take action in opposition to the Trump administration’s agenda as part of the broader “Resistance” movement. Indivisible began as a Google Doc—a twenty-three-page handbook collaboratively authored by four former Congressional staffers who were reflecting on the successes of the Tea Party movement during the Obama administration. The guide went viral online after one of the cofounders shared it via Twitter.

Years ago, researchers devoted substantial energy to comparisons of online versus offline activism. There were dire warnings during the Web 2.0 era that online “clicktivism” was somehow lacking in the qualities that made offline activism effective. Malcolm Gladwell catapulted the issue into the public spotlight with a 2010 essay titled “Small Change: Why the Revolution Will Not Be Tweeted.”²⁸ Nicholas Lemann likewise remarked in

28. Malcolm Gladwell, “Small Change: Why the Revolution Will Not Be Tweeted,” *The New Yorker*, October 4, 2010, http://www.newyorker.com/reporting/2010/10/04/101004fa_fact_gladwell?currentPage=all.

2013 that the modern climate movement was failing where the earlier environmental movement had succeeded because the climate movement was too reliant on digital tactics.²⁹

As the Internet has seeped into everyday life, the boundaries between “online” and “offline” have largely faded away. Just as the broadcast media system was part of the context within which the Civil Rights Movement operated, today’s digital media system—which Andrew Chadwick helpfully labels a “hybrid media system,” since it layers digital and analog media on top of one another³⁰—provides the context for modern-day social movements and political associations. Online versus offline is now a false dichotomy, a remnant of a past stage of Internet research.

Replacing the emphasis on clicktivism and online-versus-offline has been an increase in attention to how the pathways for political and civic participation have changed. Movements of concerned citizens now often begin online. They can start with a hashtag, an online video or blog post, or a digital petition. This is a far cry from the civic wasteland that Robert Putnam described in *Bowling Alone*, but also quite different from the online communities that typified the early Web 2.0 era. Social connections thrive online. News and information spread quickly. Digital networks are embedded in geographic communities and play an infrastructural role in civic affairs as well. But it is also important to look at contemporary social movements beyond their moment of inception. Over the longer term, the successful social movements that originate online tend to spill over into physical geography, replicating the deep social network ties that were the hallmark of movements from decades past. Traditional social movement organizations meanwhile deploy digital tactics as a force multiplier for their efforts, updating their media strategies for a media system that is being reconfigured on the fly.

Research in this area has been limited by the proprietary data gap. Viral Twitter hashtags are more accessible than secret Facebook groups³¹ or closed Google Group email lists that function as semi-formal network backchannels for established movement activists.³² But researchers have

29. Nicholas Lemann, “When the Earth Moved,” *The New Yorker*, April 5, 2013, <http://www.newyorker.com/magazine/2013/04/15/when-the-earth-moved>.

30. Andrew Chadwick, *The Hybrid Media System: Politics and Power* (New York: Oxford University Press, 2013).

31. Emily Van Duyn, “Hidden Democracy: Political Dissent in Rural America,” *Journal of Communication* 68 (5) (2018): 965–987, <https://doi.org/10.1093/joc/jqy042>.

32. David Karpf, *The MoveOn Effect: The Unexpected Transformation of American Political Advocacy* (New York: Oxford University Press, 2012).

nonetheless made some impressive strides that move us beyond the older fascination with online-versus-offline participation.

A key insight of recent years is that, though social movements can now begin spontaneously in digital spaces, over time these movements either adopt concrete organizational forms or they fade away. Movements may begin through online networks, but the organizational layer of American civic life remains necessary for longer term activities. Political associations play a central role in developing activists and teaching democratic skills to committed, engaged citizens.³³ Social movements develop leadership structures to adapt continually their tactics and strategies.³⁴

As these digital movements have adopted more conventional forms, we have also come to recognize that they face many of the same limitations that hampered traditional social movements.³⁵ In particular, it has become apparent that some social movement goals are much easier to realize than others. Micah Sifry argues that the Internet is more useful for saying “stop” than “go.”³⁶ It is easier to launch a national conversation and raise public awareness of a problem than it is to enact policy reforms. Organizing a nationwide march is a complex task, but is far simpler than navigating the maze of veto points that are designed to frustrate political change at the state and national level.

It is also now clear that these digitally infused organizations all excel at contentious politics. The Internet is useful for the National Rifle Association and for Moms Demand Action. It has been much less effective in bringing the two sides together for rational-critical deliberative sessions. In polarizing times, the use of digital media by political associations has been a vector for further polarization. It results in an agonistic, rather than a deliberative style of democracy.

The contentious nature of digitally infused politics is also a reminder that the participatory inequalities of pre-Internet democracy remain present in the twenty-first century. As Kay Schlozman, Sidney Verba, and Henry Brady argued in their 2012 book, *The Unheavenly Chorus: Unequal Political Voice and the Broken Promise of American Democracy*, the Internet is largely a “weapon of the strong,” exacerbating a tendency in American

33. Hahrie Han, *How Organizations Develop Activists: Civic Associations and Leadership in the 21st Century* (New York: Oxford University Press, 2014).

34. Zeynep Tufekci, *Twitter and Tear Gas: The Power and Fragility of Networked Protest* (New Haven, Conn.: Yale University Press, 2017); and Karpf, *The MoveOn Effect*.

35. Jennifer Earl and Katrina Kimport, *Digitally Enabled Social Change* (Cambridge, Mass.: MIT Press, 2011).

36. Micah L. Sifry, *The Big Disconnect: Why The Internet Hasn't Transformed Politics (Yet)* (New York: OR Books, 2014).

politics to amplify the voices of the wealthy, the white, and the better-educated.³⁷ Eszter Hargittai has likewise repeatedly found evidence of a “digital skills divide” that exacerbates civic and political inequality along traditional socioeconomic axes, even once broadband access becomes universally available. Jen Schradie’s recent book, *The Revolution That Wasn’t: How Digital Activism Favors Conservatives*, expands even further on this insight. Schradie argues that “the advent of digital activism has simply ended up reproducing, and in some cases intensifying, preexisting power imbalances.”³⁸ Due to a combination of “inequality, institutions, and ideology,” digital and social media prove to be more effective in spreading information and defending status quo biases than for building sustained mass movements for social and political change among the dispossessed.

It would be a mistake, however, to conclude that the Internet has simply reproduced and amplified the civic and political patterns associated with movements past. Changing communications technologies create new pathways to participation, and large-scale movements are still frustrated when trying to build the power necessary to enact major social reforms. But the current digital moment, with its focus on social media mediated through major platforms, also incentivizes novel forms of bad behavior that we have not faced before.

The Earnest Internet Versus the Ambivalent Internet

The biggest problem that the Internet poses for engaged citizenship is the rising tide of trolling, performative vitriol, and the increasing use of automated accounts/political bots. Trolling and “flame wars” are hardly new—they have a storied history that dates back to the BBS systems and multi-user dungeons (MUDs) of the 1980s. But these practices were concentrated within narrow Internet subcultures during much of the 1990s and early 2000s. It is only recently that they have expanded to the civic Internet. The scale and sophistication of these activities has increased dramatically in recent years, posing thorny policy problems with no easy solutions.

Democratic theorists and communication scholars tend to operate from the foundational assumption that political participation is fundamentally *good*. A well-informed, participatory public is an ideal that we can all agree upon without controversy. And this is because we have long

37. Kay Lehman Schlozman, Sidney Verba, and Henry Brady, *The Unheavenly Chorus: Unequal Political Voice and the Broken Promise of American Democracy* (Princeton, N.J.: Princeton University Press, 2012).

38. Jen Schradie, *The Revolution That Wasn’t: How Digital Activism Favors Conservatives* (Cambridge, Mass.: Harvard University Press, 2019), 7.

safely presumed that the people who contribute their time, energy, and opinions to civic life are doing so *in earnest*. Paraphrasing Justice Brandeis, the answer to bad citizen engagement has mostly been to promote more (or better-informed) civic engagement. Civil society is enriched by participation, because it creates the necessary preconditions for deliberation and informed governance.

With the rise of political trolling, this assumption of earnest behavior requires amending. What value to the public sphere is there in networked harassment, or in bad-faith arguments designed to “trigger” the other side? “More speech” does not improve the public sphere if the express intention of that speech is to drown out opposing viewpoints and undermine public trust. As Zeynep Tufekci has argued, the ability to channel online attention that drowns out the other side has effectively replaced censorship as the central threat to free speech.³⁹ Google, Facebook, and (to a lesser extent) Twitter now determine which perspectives are heard, which stories and frames will become part of the public discourse. Trolls and political botnets actively seek to game these attention algorithms, for fun, for power, or for profit.

The downside of the lowered transaction costs of online participation has now become apparent. The costs of civic participation that contributed to the decline of social capital in the late twentieth century also essentially turned earnestness into a necessary condition for participation in the public sphere. Respect them or ridicule them, the people who showed up to town hall meetings and wrote letters to the editor all were committed enough to their beliefs to take the costly step of showing up. Today’s digital mobs and swarming botnets, by comparison, can be assembled almost effortlessly. And, thanks to the proprietary data gap, public researchers and policy-makers are ill-equipped to measure the scale or efficacy of this activity, much less to craft appropriate policy remedies.

Here we can see an inversion of the old debate over “clicktivism.” Clicktivism’s critics had warned that online participation was too easy to have any value. They did not doubt the earnest intentions of online petition-signers and information-spreaders; they doubted the *efficacy* of these civic behaviors. Trolls and botnets are demonstrably effective—they can hound opponents off social media, silencing disliked perspectives from the online discourse. They can set the media agenda by artificially inflating particular stories and frames, causing stories to “go viral,” which in turn attracts mainstream media attention. As a result, we are forced to reevaluate the bedrock assumption that more political and civic participation is inherently good.

39. Zeynep Tufekci, “It’s the (Democracy-Poisoning) Golden Age of Free Speech,” *WIRED* magazine 26 (2) (February 2018), <https://www.wired.com/story/free-speech-issue-tech-turmoil-new-censorship/>.

Consider: in December 2016, a man from Salisbury, N.C., drove to Washington, D.C., entered a pizza restaurant with an assault rifle, and demanded that the establishment's employees release the child sex slaves that were being held in the basement. The restaurant, Comet Ping-Pong, did not have a basement. But it had been the subject of an online conspiracy theory, invented from whole cloth on Internet forums that searched through the hacked emails of Clinton campaign chair John Podesta after they were released by Wikileaks in an attempt to influence the outcome of the 2016 election. The "Pizzagate" conspiracy theory was bizarre. For some of its proponents, it was entertainingly odd. But it also nearly turned deadly.

Whitney Phillips and Ryan Milner document these trends in their book, *The Ambivalent Internet: Mischief, Oddity, and Antagonism Online*.⁴⁰ They discuss the long apolitical history of online pranks and trolling, and also delve into the recent turn toward political and civic life. It is at this juncture that the problem emerges. Civic theorists and Internet politics scholars in the Web 1.0 and Web 2.0 eras could largely ignore the ambivalent Internet, because it was a vibrant-but-isolated subculture. The vast majority of online political behavior was indeed earnest in nature.

The inflection point appears to have occurred around the #Gamergate controversy in 2014. #Gamergate was an effort by rabidly misogynist video game players to harass female game developers and feminist media critics. The Gamergate community pioneered a set of aggressive tactics, threatening mainstream journalism outlets that published critical coverage of its campaign of online harassment. This included bad-faith efforts to generate complaints to major companies and get them to pull their advertisements from any news outlet that offered sympathetic portrayals of Gamergate targets. Gawker media executives estimated that Gamergate cost the company seven figures in lost advertising revenue.⁴¹ Seen through a different lens, it was an effective and unscrupulous social movement tactic. Conservative digital provocateur and Breitbart news editor Milo Yiannopoulos emerged as a major promoter of the Gamergate campaign. Steve Bannon—Breitbart's then-executive chairman who later became Donald Trump's chief strategist—took note of the campaign and became interested in channeling it into the conservative "alt-right" movement. Since 2016, these trolling efforts have come to overwhelm much of civic and political discourse.

40. Whitney Phillips and Ryan Milner, *The Ambivalent Internet: Mischief, Oddity, and Antagonism Online* (Cambridge: Polity Press, 2017).

41. Peter Sterne, "Gawker discusses cost of 'gamergate,'" *Politico.com*, December 2014, <https://www.politico.com/media/story/2014/12/gawker-discusses-cost-of-gamergate-003205>.

The problem is that it is unclear *who* can effectively mitigate the impacts of trolling and political botnets. The incentives are terribly misaligned. The purveyors of outlandish lies and conspiracy theories profit from increased attention and devoted fan bases. Trolling communities rejoice in garnering outraged reactions. The social media platforms cannot easily separate earnestly held views from ambivalent views. Section 230 of the 1996 Communications Decency Act (the “safe harbor” provision) shields these platforms from liability for the opinions that are voiced on their sites. As a result, there is a built-in cyberlibertarian bias that favors protecting all speech (so long as it doesn’t violate copyright) and avoiding the burden of the social and civic impacts of how people use the platforms to cause intentional harm. Congress and the courts, meanwhile, worry about abridging free speech and passing new regulations with unintended consequences that chill speech and public participation.

This is a new problem. We are not well prepared for it, and it is likely to get worse. The old frameworks for judging civic participation valued neutrality. The Internet, we have long understood, can be used by the full spectrum of political movements—gun rights advocates and gun reform advocates, white nationalists and intersectional feminists. The troubling new phenomenon is not merely that people use the Internet to organize for causes that we dislike; the trouble is that people are now using the Internet to amplify radical perspectives that they barely even believe themselves.

The Quiet Demise of Web 2.0

Web 1.0 ended with a bang; Web 2.0 ended with a whimper.

Web 1.0 was the original dotcom boom—the rush to embrace (and profit from) our digital future that characterized the mid-to-late 1990s. It extended well beyond the “infobahn” metaphor. The growth of the World Wide Web, coupled with the fall of the Soviet Union, prompted a public imagining of a new era of economic and technological globalization. Both financial and communications networks appeared to be on the march toward unlimited growth and endless prosperity. Francis Fukuyama predicted the “End of History,” and technological futurists saw the Internet playing a central role in the coming age of stable, global democracy. The pages of *WIRED* magazine were filled with confident predictions about the new economics of abundance.⁴²

42. David Karpf, “25 Years of WIRED Predictions: Why the Future Never Arrives,” *WIRED* magazine 26 (10) (October 2018), <https://www.wired.com/story/wired25-david-karpf-issues-tech-predictions/>.

The destruction of Web 1.0 took place in full public view. The stock market bubble that began with Netscape's Initial Public Offering in 1995 was completely deflated in 2000. A year later, the September 11 attacks shocked the public consciousness, replacing dreams of global peace and prosperity with fears of a new clash of civilizations. The country has been at war ever since.

Web 2.0 arose in the aftermath of Web 1.0, as a new narrative architecture for explaining the promise and potential of digital media. Coined by software publisher Tim O'Reilly, "Web 2.0" suggested that we had moved from an era of networked computers to one of networked publics. Or, as Kevin Kelly put it, "We Are the Web."⁴³ Prominent examples of Web 2.0 were the Open Source software movement, Craigslist, YouTube, Wikipedia, the blogosphere, and early social networks like Friendster and Myspace. Communities were forming everywhere online. They were collaborating, producing complex social goods, and disrupting traditional social institutions.

The Web 2.0 framework appeared particularly promising for civic life. The blogosphere promised to replace the unpopular, distrusted broadcast media with a wave of citizen journalists. The ultimately unsuccessful Howard Dean presidential campaign demonstrated in 2003 that upstart politicians could raise millions of dollars through online, small-dollar fundraising. Craigslist and Meetup.com showed that the Internet was bringing offline communities together. Legal academic Beth Simone Noveck developed the "peer-to-patent" program, applying Web 2.0 principles to thorny bureaucratic challenges, with promising results.⁴⁴ O'Reilly published a widely acclaimed article titled "Government as a Platform," speculating on how Web 2.0 could revolutionize civic life.⁴⁵

The pinnacle of Web 2.0 in civic life approximately coincided with the start of the Obama administration. Barack Obama's digitally infused electoral campaign seemed to represent the promise of digital citizenship, succeeding where Dean had faltered.⁴⁶ The Obama administration launched an "Open Government" initiative, hiring Noveck as deputy chief technology officer and promising a new era of government transparency and responsiveness.

43. Kevin Kelly, "We Are the Web," *WIRED* magazine 13 (8) (August 2005), <https://www.wired.com/2005/08/tech/>.

44. Beth Simone Noveck, *Wiki Government: How Technology Can Make Government Better, Democracy Stronger, and Citizens More Powerful* (Washington, D.C.: Brookings Institution Press, 2009).

45. Tim O'Reilly, "Government as a Platform," *Innovations* 6 (1) (2010), https://www.mitpressjournals.org/doi/pdf/10.1162/INOV_a_00056.

46. Daniel Kreiss, *Taking Our Country Back: The Crafting of Networked Politics from Howard Dean to Barack Obama* (New York: Oxford University Press, 2012).

But somewhere in the frustrating years that followed, the Web 2.0 ethos vanished. Changes in the economics of online advertising hit the political blogosphere hard. Most professional bloggers either joined mainstream publications, launched their own media organizations, or stopped blogging altogether. Electoral campaigns became increasingly digital, but also adopted more centralized forms of management and control.⁴⁷ The much-heralded new era of open-source, participatory campaigning was replaced by a focus on microtargeting and optimization.

The administrative response to the failed rollout of the Affordable Care Act website in 2013 was a major turning point. While the health care plan eventually emerged as a stunning success story, its launch signaled a drift away from the Web 2.0 narrative. The Obama administration reacted to this technology failure with a “tech surge.” Obama hired a small team of technologists and tasked them with rebuilding the website on a short deadline. Rather than tapping the power of wikis and civic generosity, this team focused on rapid tech deployment and build-measure-learn cycles. It worked well, and led to the formation of two new government entities: the U.S. Digital Service (USDS) and 18F.⁴⁸

The post-Web 2.0 shift has not been a rebuke of the civic potential of technology. Rather, it has been a change of emphasis regarding its civic potential. Where Web 2.0 theorists like Beth Simone Noveck focused on the potential of opening up government and improving civic life through mass voluntary coproduction, post-Web 2.0 thinkers have focused more on applying the lessons of Silicon Valley startup culture to government performance. Particularly noteworthy is Jennifer Pahlka, founder and Executive Director of Code for America. Pahlka is a leading proponent of the USDS/18F model. In her writing and public talks, she emphasizes the good work that coders can accomplish by working directly for government agencies. The ethos of code-writing—identifying bottlenecks, failing fast, focusing on improving the user experience—can improve trust in government through the simple solution of making government services work better.

What’s more, the tech surge within government has effectively side-stepped the proprietary data gap by focusing technical know-how on the government’s *own* data. USDS and 18F draw *people* from the major platform companies, calling on technologists to use their skills in service to the public interest. But they do not draw data from the major platform companies, nor do they need to do so to achieve their stated objectives.

47. Ibid.; and Stromer-Galley, *Presidential Campaigning in the Internet Age*.

48. Steven Levy, “The Final Days of Obama’s Tech Surge,” *Backchannel.com* (January 2017), <https://www.wired.com/2017/01/the-final-days-of-obamas-tech-surge/>.

For engaged citizenship, there is indeed much benefit to be found in testing and optimization. But we should pause to reflect on how and why the Web 2.0 metaphor perished. Instead of prioritizing openness, transparency, and mass civic collaboration, we now increasingly focus on optimization, efficiency, and service delivery. These are more modest goals than were associated with the mid-2000s civic imaginary. They point to how, as we have incorporated digital tools into all of public and private life, we have also run up against the boundaries of technology's potential for social transformation.

Digital Democracy and the Field of Dreams Fallacy

In the build-up to the 2012 U.S. presidential election, an organization called Americans Elect promised to use the Internet to unleash the untapped potential of the “radical center” in American politics. Many public intellectuals were quite enthusiastic about the promise of Americans Elect. In the midst of an early media blitz, Thomas Friedman wrote a glowing op-ed for *The New York Times* predicting that it was going to “remove the barriers to real competition, flatten the incumbent [political parties] and let the people in.”⁴⁹ Suffice it to say, nothing of the sort occurred. Americans Elect debuted with a bang and finished with a whimper, quietly folding during the spring of 2012 after spending over \$9 million on its online platform without finding a single credible candidate who could attract online support. Americans Elect is emblematic of a repeat pattern that has occurred across all phases of Internet history—what we might call the “Field of Dreams Fallacy” in digital politics and civic technology: the assumption that “if you build it, [they] will come.”

A great many projects over the years, from e-petition websites to civic social networks, have begun from the premise that, if you build a good enough platform, you can radically increase political participation. These projects all start with great fanfare, usually with substantial financial support from civic-minded Silicon Valley elites. They all end the same way, quietly folding, only to be replaced soon after by a similar project making the same promises. Micah Sifry and Matt Stempeck have begun documenting these failed civic technology projects in a “Civic Technology Graveyard,” maintained as part of their Civic Tech Field Guide.⁵⁰

One of the key insights from the Web 2.0 era is that the Internet lowers the barriers to public participation and collaboration. In so doing, we

49. Thomas Friedman, “Make Way for the Radical Center,” *The New York Times*, July 2011, <https://www.nytimes.com/2011/07/24/opinion/sunday/24friedman.html>.

50. See <https://www.civictech.guide>.

can more fully act on our preferences. Fan communities and niche publics have flourished online, letting hobbyists and passionate amateurs collaborate around complex creative endeavors. But what we often forget is that the Internet does not *create* our preferences, it *reveals* them. The reason the Internet failed to unleash pent-up demand for a radical-centrist third political party in 2012 is that there is no evidence such demand exists. The reason so many civic tech companies have tried and failed to construct vibrant online communities around discussion of public affairs is that very few Americans are interested in routinely discussing public affairs.

We can trace the history of civic technology failures all the way back to the pre-World Wide Web Internet. In the mid-1980s, the city of Santa Monica, California, launched the very first “e-democracy” project. It was heralded as a success, as a signal flare lighting up our promising civic future. Then it fell into disrepair, and was abandoned without comment. The rise and fall of Santa Monica’s Public Electronic Network (PEN) has been replicated in broad brush strokes, its lessons rarely learned over the decades.

PEN was meant to foster government responsiveness and civic participation. It was a municipally owned e-mail and computer conferencing system, built during the era that saw the Internet as a “virtual community.” Residents could participate through a home computer or through one of twenty terminals in sixteen public locations. Through PEN, citizens could hold discussions on matters of public concern, contact elected officials, and learn information about government services and activities. PEN showed great promise early on. About 5 percent of Santa Monica residents registered for the system, including several hundred homeless residents who accessed it through public libraries and recreation centers. One of those homeless residents remarked on the liberating potential of the system, noting “No one on PEN knew that I was homeless until I told them. After I told them, I was still treated like a human being. To me, the most remarkable thing about the PEN community is that a city councilmember and a pauper can coexist, albeit not always in perfect harmony, but on an equal basis.”⁵¹

But PEN failed to grow, and it never realized its potential. Within a few years, the network had only a few hundred residents participating in any given month (less than 1 percent of the city), making it hardly representative of public opinion. The system also only played an advisory role, meaning it was divorced from any real political power. And though there was initially some promising online discussion, it eventually devolved into incivility and trolling. As new digital technologies were layered on top of the old, public attention shifted away from PEN and it was quietly shut down.

51. Joan Van Tassel, “Yakety-Yak, Do Talk Back!” *WIRED* magazine 2 (1) (January 1994), <https://www.wired.com/1994/01/pen/>.

This story has played out dozens of times in the years to follow. E-government initiatives have been launched under the banner of unleashing a wealth of untapped civic potential. Instead they have mostly resulted in a faster way to pay your parking tickets online. The Obama administration launched a petition platform called “We The People” as the centerpiece of a new initiative to make government more open and transparent. Even with the best of intentions, the administration struggled to make the petition site a meaningful experience for its users. By 2013, many of the petitions being launched were thinly-veiled racist bromides, declaring that “Immigration is white genocide” and attracting a few dozen signatures.

The lesson here is not one of inevitable despondency. The Internet can be and often is useful in promoting and empowering engaged citizenship. Initiatives like Eric Liu’s Citizen University work to inculcate civic values, helping to build a culture in which more of the public sees value in civic engagement. There is also some promise in participatory budgeting initiatives at the local level. These initiatives raise the stakes for citizen engagement by attaching government resources to the outcomes of public deliberation.⁵² The mistake that has so often been made by well-meaning technologists, and the investors who support them, is that they begin from a faulty assumption that there is high pent-up demand for civic collaboration. After thirty years of civic tech failures, we are better off assuming the demand for citizen engagement is low, and treating the work of fostering it as a worthy challenge.

52. Hollie Russon Gilman, *Democracy Reinvented: Participatory Budgeting and Civic Innovation in America* (Washington, D.C.: Brookings Institution Press, 2016).

Conclusion

The intent of this paper has been threefold: (1) to give readers a historical reference point for current controversies in digital politics, (2) to illuminate the unique challenges that make the accumulation of knowledge in this field more difficult than in more stable fields, and (3) to highlight current themes and debates that are particularly worthy of our attention. Let me conclude by summarizing briefly key takeaways for researchers, policy-makers, and practitioners.

The Upside of Internet Time

The trouble with Internet Time is that it destabilizes the steady accumulation of knowledge. The role that today's social media plays in civic life is different from the role that Web 2.0 played in civic life a decade ago, or the infobahn or early virtual communities played in the decades before that. It can feel at times like the Red Queen's Race in *Through the Looking-Glass*, running faster and faster in pursuit of knowledge, only to find ourselves in the same place.⁵³

But the upside of Internet Time is that we don't have to look very far back to find historical precursors to our current social problems. Fields of inquiry like online political polarization, disinformation, online political participation, and civic technology have existed in a state of semi-permanent inception for decades now. Today's Internet may be different from yesterday's Internet, but it bears enough similarities to invite rigorous comparison. We can mine this digital history for patterns, tracing the ebb and flow of social panics and identifying the most worrisome trends. We can also improve our understanding of social phenomena by comparing today's digital media to yesterday's digital media instead of perpetually harkening back to fading memories of a social order that was built around the older media technologies of the telephone, newspaper, radio, and television.

The first step to understanding digital politics in Internet time is to stop treating digital media as though they are entirely new.

53. Lewis Carroll, *Through the Looking-Glass, and What Alice Found There* (1871).

Bridging the Proprietary Data Gap

The proprietary data gap will get worse unless we intentionally narrow it. The era of “big data” is shaping up to be one in which public knowledge is limited by the types of data that digital platform companies make available to the research community. If we are not careful, the only social scientists who will be equipped to assess the impact of social media on civic life will be the ones employed by the social media companies themselves. The only research that will be published will be research that increases short-term shareholder value for the companies that own the data.

Bridging the proprietary data gap will require active participation from researchers, tech firms, policy-makers, and concerned citizens. There are, at present, two existing models worth exploring further. First is Social Science One, a new partnership between Facebook and academic researchers, led by Gary King of Harvard and Nathaniel Persily of Stanford.⁵⁴ Social Science One includes a panel of academic experts that scrutinizes research proposals for their scientific and ethical merit, funding commitments from multiple nonprofit foundations, and data access from Facebook for research on “the effects of social media on democracy and elections.” Though it is too early to evaluate the success of this initiative, it is clearly a positive development that should be monitored and potentially adopted elsewhere (the first set of awards in this competition were announced in spring 2019).

The second model builds from the long tradition of technology firms setting up independent research laboratories that are given free rein to conduct basic research of all sorts (Xerox PARC and Bell Labs, most famously). Some of the best critical data studies have been published by researchers employed by Microsoft Research and researchers at Data & Society, an independent research institute established through a major gift from Microsoft. Not only are these research institutes better positioned within technology circles than traditional social science departments, they are also able to convene researchers and publish publicly relevant research in a more timely manner than existing peer-reviewed journals can. Where the Social Science One model creates a structure for public researchers to access proprietary data from the platforms, the Microsoft Research/Data & Society model creates a structure for public researchers to study the platforms themselves.

What might a Bell Labs/Xerox PARC, devoted to studying the intersection of technology and civil society, look like if it had support from Google, Apple, Facebook, or Amazon?

54. Gary King and Nathaniel Persily, “A New Model for Industry-Academic Partnerships,” *PS: Political Science and Politics* (forthcoming), <http://j.mp/2q1IQpH>.

New Policy Challenges for the Platform Era

On March 30, 2019, Facebook CEO Mark Zuckerberg wrote an op-ed in *The Washington Post* titled “The Internet needs new rules. Let’s start in these four areas.”⁵⁵ Perhaps the most noteworthy part of the column is the fact that Zuckerberg felt the need to write it at all. Certainly, it is a far cry from John Perry Barlow’s famed 1996 “Declaration of the Independence of Cyberspace.”⁵⁶ Rather than rebelling against the very concept that governments should regulate the Internet, Facebook’s CEO is now openly inviting regulation in the areas of harmful content, protecting elections, data privacy, and data portability.

Suffice to say, Zuckerberg did not arrive at his conclusion spontaneously. Alongside those four problems, many policy analysts would add a fifth—antitrust regulation of online monopolies, Facebook among them.⁵⁷ Specific policy recommendations fall outside the purview of this paper, but it is appropriate to note here that these are different policy problems than we faced with the Internet of the 1990s or the Internet of the 2000s. Governance and regulation in the platform era must start from a clear understanding of how the platforms operate, how people use them for good and for ill, and how the Internet continues to change.

The Internet of 2019 is not a finished product. The choices made by technologists, investors, policy-makers, lawyers, and engaged citizens will all shape what the medium becomes next.

55. Mark Zuckerberg, “The Internet Needs New Rules: Let’s Start in These Four Areas,” *The Washington Post*, March 30, 2019, https://www.washingtonpost.com/opinions/mark-zuckerberg-the-internet-needs-new-rules-lets-start-in-these-four-areas/2019/03/29/9e6f0504-521a-11e9-a3f7-78b7525a8d5f_story.html?utm_term=.8d2bba384a41.

56. John Perry Barlow, “A Declaration of the Independence of Cyberspace,” 1996, <https://www.eff.org/cyberspace-independence>.

57. Lina M. Khan, “Amazon’s Antitrust Paradox,” *Yale Law Journal* 126 (3) (2016); and K. Sabeel Rahman, “Challenging the New Curse of Bigness,” *The American Prospect*, November 29, 2016, <https://prospect.org/article/challenging-new-curse-bigness>.

About the Author

David Karpf is an Associate Professor and the Associate Director of the School of Media and Public Affairs at George Washington University. He teaches and conducts research on Internet politics, with a focus on organized political advocacy campaigns in the digital age. He is the author of two books, *The MoveOn Effect* (Oxford University Press, 2012) and *Analytic Activism* (Oxford University Press, 2016). He is currently working on a history of the digital future, which he wrote about for the October 2018 issue of *WIRED* magazine.

Commission on the Practice of Democratic Citizenship

The Academy's Commission on the Practice of Democratic Citizenship is dedicated to identifying and promoting the values, behaviors, and skills needed for effective civic participation in a twenty-first-century democracy. The Commission has compiled data on current practices through research, thought leader interviews, and a series of nearly fifty listening sessions conducted in communities across the country. This work has helped identify the factors that encourage or obstruct civic and political participation and has highlighted local initiatives around the United States that are helping people become more involved in their communities and their government. The Commission is finalizing a set of recommendations that are aimed at empowering voters, creating equality of voice in our political processes, helping our institutions to be more responsive, developing a functional information architecture, engaging civil society organizations in cultivating a healthy democracy, and strengthening our political culture. The Commission will release its final report and recommendations in spring 2020.

Commission Chairs

Danielle Allen (Harvard University)

Stephen Heintz (Rockefeller Brothers Fund)

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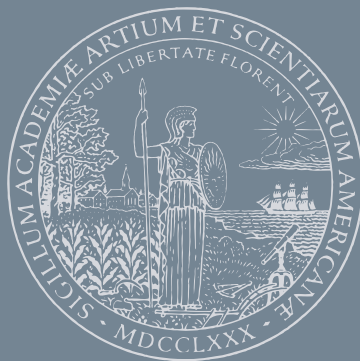
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