

SOCIAL MEDIA AND DIGITAL POLITICS

Informed by critical theory, this book employs Social Network Analysis (SNA) to examine the ever-increasing impact that social media has on politics and contemporary civic discourse.

In just the past decade, social media platforms have been at the forefront of political discord that played out in the January 6th insurrection, the expulsion of a US President from major social media platforms, the attempted regulation of social media in various states, and the takeover of Twitter (now “X”) by one of the richest and (arguably) most financially influential persons in the world. This book examines these phenomena through a comprehensive and in-depth exploration of their meaning and implication for democratic society. Informed by SNA, James Jaehoon Lee and Jeffrey Layne Blevins examine several types of social and political commentary on one of the most influential social media networks and argue that the use of emotional appeals in these posts about social and political topics degrades the quality of civic discourse and encourages the abandonment of reasoning in democratic self-governance.

A timely and vital text for upper-level students and scholars in a variety of disciplines from media and communication studies, journalism, and digital humanities to social network analysis, political science, and sociology.

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SOCIAL MEDIA AND DIGITAL POLITICS

Networked Reason in an Age
of Digital Emotion

James Jaehoon Lee and Jeffrey Layne Blevins



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CONTENTS

<i>Acknowledgments</i>	viii
<i>List of Acronyms and Abbreviations</i>	x
SECTION I	
Theoretical and Social Foundations	1
1 Introduction	3
<i>Why Social Network Analysis?</i>	4
<i>Outline of Our Analysis</i>	7
2 The Digital Body Politic	13
<i>Digital Politics and Affective Polarization</i>	16
<i>Reason, Knowledge, and Affective Politics</i>	17
<i>What about the Role of News Media in</i> <i>Digital Spaces?</i>	18
<i>Rhetoric, Public Discourse, and the Body</i> <i>Politic</i>	19
<i>Learning from History: How the Language</i> <i>of Reason and Emotion Shape the</i> <i>Body Politic</i>	23

SECTION II

Networked Insights 29

- 3 Defining the Marketplace of Reason and Rage:
Rhetorical Analysis, Social Network Structure,
and Natural Language Processing 31

*A History of Social Network Analysis:
Sociograms, Weak Ties, and Network
Science 32*

*Social Media and Measuring Sentiment in
Language 37*

*The Language of Emotion and Reason
Shapes Network Structure: Combining
Machine Learning and Social Network
Analysis 38*

- 4 Rhetoric, Reason, and Emotion in a
Network Space 68

*The Language of Reason and Logical
Proof 72*

Citing Data 75

*Using Logic to Develop Multi-step
Arguments 79*

Emotion, Rage, and Race 84

Direct Citation of Emotions 87

False Comparison and Provocation 88

Exaggeration and Absurdity 90

Humor and Ridicule 93

SECTION III

Our New Networked Politics 99

- 5 Critical Analysis of Digital Discourse 101

Reason and Science 102

Truth and Post-truth 106

Post-truth and Epistemological Crisis 107

Affective Politics and Polarization 108

6 News, the Battle for Truth, and the Networked Future	111
<i>The Role of Journalism and News Media</i>	111
<i>In Utramque Partem: Twisting the Rhetoric of “Both Sides”</i>	113
<i>Combating “Both Sides”: Learning from the Lessons of 2016</i>	118
<i>Networked Structure: Inaugurating a New Reality for Digital Politics</i>	129
References	135
Index	145

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LIST OF ACRONYMS AND ABBREVIATIONS

Throughout the book, we use the following acronyms, which we provide here for reference.

AI	Artificial intelligence
ANT	Actor-network-theory
COVID-19	Coronavirus SARS-CoV-2
HCQ	Hydroxychloroquine
MAGA	Make America Great Again
ML	Machine learning
NLP	Natural Language Processing
SNA	Social network analysis
US	United States

SECTION I

Theoretical and Social Foundations

1

INTRODUCTION

Since the 2016 presidential election, social media, especially Twitter, has been the primary arena of political discourse and discord in the United States. Confrontations have taken shape over fake news, misinformation, the January 6 insurrection in 2021, the expulsion of a US President from popular social media platforms, attempts by state lawmakers in Florida and Texas to prohibit social media companies from “censoring” conservative politicians on their networks, and the takeover of Twitter (now “X”) by one of the richest and (arguably) most influential persons in the world, Elon Musk. In each of these cases, the discourse on social media ranged from the reasoned to the emotional. But, to fully understand the significance of these events and others requires more than a quantitative description or individual case studies alone. Rather, a more critical and comprehensive examination of these phenomena is needed to know their meaning and see the implications for democratic society and self-governance.

Informed by critical theory and by using social network analysis (SNA), we will examine several types of social and political commentary on Twitter networks, including affective, rhetorical, and rational appeals. We argue that the use of emotional appeals in social media posts about social and political topics degrades the quality of civic discourse and encourages the abandonment of reasoning in democratic self-governance.

Why Social Network Analysis?

We employ SNA methods to study three types of social and political commentary made via posts on social media networks, including affective, rhetorical, and rational appeals. Our application of these techniques represents a unique contribution by grounding our research questions and methodological design on a humanistic theoretical foundation. We consider the language and discourse of twenty-first-century social networks as a digital, and arguably distorted, analog of the oratorical model of rhetorical appeal, developed by Aristotle, Cicero, Quintilian, and Machiavelli, to stir public sentiment by arousing passions and stimulating an audience's reasoning capabilities through persuasive linguistic address. The goal of this rhetorical persuasion was not simply pretty language – it aimed to sway the public to certain political judgments and to broker social consensus.

To this point, practitioners of SNA have not adequately attended to how rhetoric has structured public discourse at a large scale. Indeed, our study serves as a corrective to the popular view that these kinds of rhetorical and emotional appeals are simply negative, manipulative, or empty words void of action. We turn instead to the humanities, which have historically developed a more robust vocabulary for understanding how persuasive rhetorical address and the passions it can incite can guide and indeed manipulate public action for better or worse ends. As we shall consider in subsequent chapters, studies in SNA remain more oriented toward quantitative examination of social networks in their research questioning and findings. However, the wide historical and social span of humanistic frameworks represents a useful lens to tackle critical questions about the meaning and impact of the content and structure of the massive social networks that shape digital public discourse today.

A project of this scope is timely and vital given the ever-increasing impact that social media has on our civic discourse, as well as questions about the political and economic forces that influence these networks, and whether proposed government regulation is appropriate and necessary. Over the past ten years, we have studied the confluence of social media and digital politics in a continuing collaboration. We have a well-developed track record for studying large-scale, SNA/humanities-based projects and have published several major research studies using network analysis to introduce humanistic reasoning to multidisciplinary audiences.¹ Each project employed the “catalyst model,” first developed at the University of Cincinnati's Digital Scholarship Center (DSC) and now expanded at Northwestern University as a joint venture of the Libraries and the Medill School's Knight Lab, which uses machine learning, natural language

processing, SNA, and data visualization of large datasets to enhance the humanities. The blending of technical and humanistic expertise involved in the catalyst model we have developed required a good deal of flexibility, since each research question at hand dictated a blend of distinct methodologies, in terms of dataset construction and extraction, machine learning/natural language processing to understand language patterns in content analysis, SNA metrics to decipher structural relationships, and network visualization techniques to make our results interpretable and transparent to a wide range of audiences, especially nontechnical readers. This work has been supported by two large-scale Andrew W. Mellon Foundation awards to develop our unique blend of technical, humanistic, and visualization methodologies and applications, with each of the studies referenced above (and described below) representing a step of methodological progress in the maturation of our methods and the arguments we have developed through them.

Our initial study² used data visualization techniques to explore how social media, particularly Twitter, broadened the scope of voices responding to social justice movements, significantly impacting public conversations about important social justice issues. This SNA examined hashtags that were invoked on Twitter in the aftermath of the Mike Brown shooting in the St. Louis suburb of Ferguson in 2014. From the millions of tweets globally, the use of specific hashtags appeared to focus the conversation on Twitter toward the personal meaning of story events and framed the shooting as something relatable to the posters' own lives and experiences.

Our next study³ applied enhanced data visualization methods to the social media marketplace of ideas within the Twitterverse during the 2020 coronavirus pandemic, when epidemiologists and other scientific and medical experts competed for attention with news media, government agencies, politicians, celebrities, and rank conspiracy theorists. However, everyone with a Twitter account was not equally qualified to speak knowledgeably about critical issues related to the outbreak, such as prevention and treatment. And accurate information from informed sources can mean the difference between life and death. To understand whose messages about the efficacy of hydroxychloroquine as a treatment for the coronavirus received the most attention on Twitter, we developed a data visualization of Twitter activity for the period of January 21 through May 21, 2020, that shows users who tweeted about hydroxychloroquine, as well as who interacted with each of them (through likes, comments, retweets, etc.) to determine who were the most prominent voices on the network during a critical juncture of the outbreak. From our analysis, it appeared that then President Donald Trump's handle

(@realDonaldTrump) and other pro-Trump-related accounts were the most influential voices on Twitter during this time of crisis, rather than those from relevant experts, such as the Centers for Disease Control and Prevention (@CDCgov) or the National Institute of Allergy and Infectious Diseases (@NIAIDnews).

We further developed our use of machine learning and data visualization methods to create a more dynamic exploration of the influence of social media on social movements in an in-depth project. That book⁴ combined political economic theory and network analysis techniques to track how social justice hashtags attain a “viral” status, along with what hashtags emerge first, which hashtags eventually dominate the discourse and capture media attention, and how hashtag behavior changes over time. We questioned popular understandings of social movements and political action by illustrating what these phenomena look like on Twitter, as compared to how they are conventionally defined in terms of strikes, protest marches or sit-ins, etc.

This book unifies our previous research projects, each with their own particular methodology and arguments on social justice, presidential elections, and coronavirus disinformation, into a more comprehensive story of how networks shape public discourse and social movements in the digital era. We will describe how we approached the unification of our methods from these different studies in Chapter 3. It bears noting, however, that apart from the technical consolidation of analytical techniques from our previous projects, this book also embraces a broader transdisciplinary scope for our arguments on how networks provide structure for public discourse in our digital present.⁵ Our prior studies were researched and written for specific disciplinary audiences in mind. With this book, we aimed to expand our field of vision to create a new form of transdisciplinary work that more precisely captures the complexity of public life in the digital space today, using an eclectic blend of approaches from the humanities, social sciences, and computational fields.⁶ Specifically, we combined a machine learning technique, word embeddings, to understand the language patterns in our Twitter dataset, SNA, data visualization, fine-grained ethnographic and rhetorical textual analysis, as well as theoretical and scholarly frameworks from intellectual history, political theory, critical theory from the Frankfurt School, media studies, and journalism. Through our collaborative partnership, we aimed to develop a transdisciplinary account of networked digital discourse that could encompass the complexities of the contemporary social context. We found that no single disciplinary or methodological framework could accommodate all of our research questions and research findings, and so we embraced this quandary as the motivation

for our diverse methodological palette, which draws from different intellectual traditions and builds from our own scholarly expertise in information science, digital humanities, and data journalism, on the one hand, and in media studies, legal and public policy related to technology, and journalism, on the other.

To accomplish these methodological ends, we developed a process for gathering and structuring Twitter data, and for housing these social media data in a cloud database to serve as the foundation for our platform, which merged the individual codebases from our previous collaborative projects. From a technical perspective, the book consolidates these cutting-edge digital methods for the study of social networks into a single package in the service of our overall argument. We will explain our methods in greater detail in Chapter 3.

Outline of Our Analysis

We will apply our developments of SNA methodologies through the lens of critical scholarship in the following organization of the book. In Section I, we outline the theoretical foundations of the body politic and explain our methods for exploring it in digital spaces through SNA. Chapter 2 in this section provides a survey of Western political philosophy about how the body politic has been analogized as a biological organism comprising government authorities, social organizations, churches, and other institutions, such as Hobbes' *Leviathan*.⁷ It is through these appendages that we can understand how the public, ideally, exercises a form of self-government, as refined in Locke's⁸ "social contract theory." In practice, then, public policymaking should take place through representatives in deliberative and formal processes and are implemented through regulatory agencies and law enforcement. However, what we begin to consider is how body politic is shaped in today's digitally platformed society, in which political discourse takes place on social media in the form of memes, or short, decontextualized, highly emotional social media posts. What we begin to see is how these hot takes on social media are frequently forged within a stream of misinformation and cultural politics that permeate through formal social and governmental institutions. Unlike the traditional, or ideal, body politic that is rooted in reasoning and common knowledge, the often-uninformed discourse taking place on social media creates what, at best, might be considered as a mob democracy. Several cases over recent years illustrate this point, including conspiracy theories about the COVID-19 pandemic, scientifically unproven treatments for the coronavirus (e.g., hydroxychloroquine, Ivermectin, urine consumption, etc.), social justice

protests, and the January 6, 2021, Capitol riot. We will begin our argument that the use of emotional appeals in social media posts about social/political topics degrades the quality of civic discourse and encourages the abandonment of reasoning in democratic self-governance.

In Section II, we bring further definition to this social media marketplace of reason and emotion and discuss how SNA can be a useful tool in discovering originators of misinformation, how certain social media posts go viral, and the role of bridge actors in connecting otherwise unrelated networks of social media users around a particular political topic. Chapter 3 offers a history of SNA to explain why it is uniquely suited for studying our research questions and examines the current limitations of SNA methodologies. To overcome these challenges, we adapt SNA methods with a unique, humanities-driven application of computational approaches that integrate theoretical and textual analysis techniques from the diverse range of disciplines we have described previously. Chapter 3 delineates how we brought together digital humanities, rhetorical analysis, critical theory, SNA, and natural language processing to tell a cross-disciplinary story of our digital world. We begin by offering a brief history of network-based scholarship across the twentieth and early twenty-first centuries to reveal SNA's inherently interdisciplinary origins so as to lay the groundwork for why the network-based approach is so suitable for our hybrid study.

At a practical level, Chapter 3 describes how we generalized our SNA pipeline by bringing together elements from the methodologies animating our previous studies. We pay particular attention to the graphical visualization of our network models to invite nontechnical and visually oriented audiences to observe and interpret patterns in our data. We hope that our network analysis methods combining statistical information, rich visualizations of patterns in our models, and the textual content composing the tweets in our networks can provide three different and complementary analytical angles and points of entry to understand and engage with our models.

In Chapter 4, we explore the insights from humanities-driven SNA, beginning with an examination of the strategies of digital rhetoric in our network models that appeal to both reasonable and irrational collective passions. We use Actor-Network-Theory (ANT) as a method of detailed, descriptive textual analysis that serves as a lens to unpack the layers of rhetorical meaning in the words and phrases of the most influential tweets making up our network. We will demonstrate how short-form Twitter discourse functions as a container of both emotional appeals, rational arguments and empirical evidence, and at times a combination of both

strategies. As we shall see, rhetorical address to instill reason and inflame passion represent the flip sides of a coin embedded in America's foundational logic but have manifested in the digital realm in an unexpectedly "originalist" way.

In Section III, we add a critical analysis of the digital discourses previously examined. Chapter 5 applies the thought of the Frankfurt School, particularly in Horkheimer and Adorno's *Dialectic of Enlightenment*,⁹ which sought to explain how the Third Reich in 1930s and 1940s Germany moved from reason to barbarism. In this chapter, we also describe a form of negative dialectics in social media networks, in which the social network *is* the society. The notion of "simulacrum" will also be applied here wherein we argue that the simulation (e.g., social media networks) has become the reality (the social and political life). This analysis also challenges Marx's description of "base and superstructure"¹⁰ and asserts that what once may have been considered the societal base with a networked superstructure now equals the social networked base, and the real society as its superstructure.

We conclude our analysis in Chapter 6, which argues that social media networks have constituted a base of digital politics in which reasoned discourse has been abandoned in the face of raw emotions and pithy memes. We apply some of the lessons from Chapter 5 to our current digital ethos in which we have another rise of right-wing fascism taking place within social media networks.

During our initial exploration of social media networks and politics, we observed how (then) presidential candidate Trump and his #MAGA memetics dominated discourse on Twitter during the 2016 election cycle (see Figure 1.1).

What stands out in Figure 1.1 is the massive continent of pro-Trump activity in the center of the network, as well as its presence throughout the periphery. Our quick assumption based on this graphic was that the Trump, MAGA, and right-leaning politics were dominating the discourse with this digital public sphere.

However, through our continued analysis throughout this book, we find that Trump, MAGA, and the right did not necessarily dominate the content or tenor of the discourse itself but rather overwhelmed the public conversation with their organized effort to exploit networks and the means to create them. What is surprising based on the data visualization presented in Figure 1.1 is that pro-Clinton and left-leaning activity outnumbered that of the Trump, MAGA, and right users. But, because the left does not create a network through the interactions of likes, retweets, comments, and follows, its discourse is pushed to the periphery and

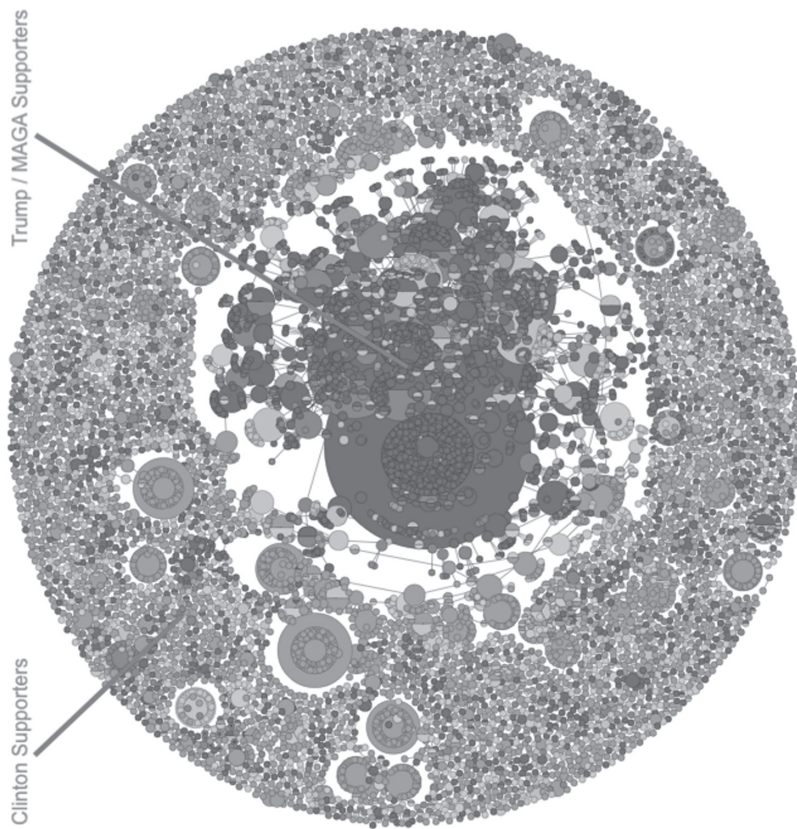


FIGURE 1.1 Trump's political network of supporters on Twitter during the 2016 election season.

exists within smaller, unconnected islands. As a result, the narratives of Trump and the MAGA-right dominate the network by creating connections at any cost and are rewarded by the platform's incentive structure that increases visibility in proportion to click-based interactions.

Thus, contemporary narratives of cultural politics are mediated through the network-making mechanics of social media platforms, whose rules emphasize connections between users and not the truth or quality of the content they produce. This network-mediated shift in the public conversation demands our critical attention and requires an SNA that is at once expansive enough in scale to encompass the vast amounts of data circulating in these networks and sufficiently nuanced to allow us to decipher the meaning of the content composing the network at a fine level of detail. It is precisely this emerging complexity of public discourse in the digital era that led us to develop a method that we characterize as a network analysis informed by humanistic reasoning.

In many ways our book examines the end of a distinct phase in the digital era. Our book focuses on the last public debates that took place in a digital space when Twitter was more representative of the public sphere, before Elon Musk's nihilistic transformation of the platform into X. Through this analysis, we anticipate how a critically informed SNA can make a difference in understanding the general implications of this network-mediated social discourse for the future of democratic self-governance.

Notes

- 1 See Blevins, J. L., Lee, J. J., McCabe, E. E. & Edgerton, E. (2019). Tweeting for social justice in #Ferguson: Affective discourse in Twitter hashtags. *New Media & Society*, Vol. 21, No. 7, (pp. 1636–1653); Blevins, J. L., Edgerton, E., Jason, D. P. & Lee, J. J. (2021). Shouting into the wind: Medical science versus “B.S.” in the Twitter maelstrom of politics and misinformation about hydroxychloroquine. *Social Media + Society*, Vol. 7, No. 2, pp. 1–14; and Blevins, J. L. & Lee, J. J. (2022) *Social Media, Social Justice and the Political Economy of Online Networks*, Cincinnati, OH: University of Cincinnati Press.
- 2 Blevins, J. L., Lee, J. J., McCabe, E. E. & Edgerton, E. (2019). Tweeting for Social Justice in #Ferguson: Affective Discourse in Twitter Hashtags. *New Media & Society*, Vol. 21, No. 7, (pp. 1636–1653).
- 3 Blevins, J. L., Edgerton, E., Jason, D. P. & Lee, J. J. (2021). Shouting into the wind: Medical science versus “B.S.” in the Twitter Maelstrom of politics and misinformation about hydroxychloroquine. *Social Media + Society*, Vol. 7, No. 2, (pp. 1–14).
- 4 Blevins, J. L. & Lee, J. J. (2022) *Social Media, Social Justice and the Political Economy of Online Networks*, Cincinnati, OH: University of Cincinnati Press.

- 5 For a discussion of the difference between transdisciplinary and interdisciplinary research, see von Wehrden, H., Guimarães, M. H., Bina, O. *et al.* (2019). Interdisciplinary and transdisciplinary research: Finding the common ground of multi-faceted concepts. *Sustainability Science*, Vol. 14, (pp. 875–888). <https://doi.org/10.1007/s11625-018-0594-x>
- 6 We use the term “transdisciplinary” purposefully, as a contrast with inter- and multidisciplinary work. “Transdisciplinarity integrates the sciences in a humanities context, and transcends their traditional boundaries.” Choi, B. C., & Pak, A. W. (2006). Multidisciplinarity, interdisciplinarity and transdisciplinarity in health research, services, education and policy: 1. Definitions, objectives, and evidence of effectiveness. *Clinical and Investigative Medicine. Medecine Clinique et Experimentale*, Vol. 29, No. 6, (pp. 351–364).
- 7 Hobbes, T. (2008). *Leviathan* (J. C. A. Gaskin, Ed.). Oxford, UK: Oxford University Press.
- 8 Locke, J. (1991). *Two Treatises of Government* (W. Ebenstein & A. O. Ebenstein, Eds., 5th ed.). Fort Worth, TX: Harcourt Brace Jovanovich College Publishers.
- 9 Horkheimer, M. & Adorno, T. W. (2002). *Dialectic of Enlightenment* (Gunzelin Schmid Noerr, Ed.; translated by Edmund Jephcott). Redwood City, CA: Stanford University Press.
- 10 Marx, K. (1970). *A Contribution to the Critique of Political Economy* (Maurice Dobb, Ed.; translation by S. W. Ryazanskaya). Moscow, Russia: Progress Publishers.

2

THE DIGITAL BODY POLITIC

Much of modern Western political philosophy about the body politic has been analogized as a biological organism comprising government authorities, social organizations, churches, and other institutions. Beginning with Hobbes' famous work, *Leviathan*,¹ he describes a totalitarian body headed by a monarch, or sovereign. However, it was Locke's "social contract theory"² that articulated the appendages of this body as the public, which in the best circumstances would exercise a form of democratic self-governance. As refined in Western democracies, public policymaking takes place through representatives in deliberative and formal processes and is implemented through regulatory agencies and law enforcement. A keen part of democratic self-governance in the United States (US) is the principle of free expression as provided in the First Amendment to the US Constitution:

Congress shall make no law respecting an establishment of religion, or prohibiting the free exercise thereof; or *abridging the freedom of speech, or of the press*; or the right of the people peaceably to assemble, and to petition the Government for a redress of grievances.³ [emphasis added]

The free and unfettered exchange of ideas, information, and opinion (especially in the political realm) is necessary for a self-governing people. Thus, political expression is at the heart of what the First Amendment is supposed to protect.

Moreover, the US political system and policymaking process have been shaped in many significant (and ever-changing) ways by journalism and media, and the interrelationships between these institutions are complex. While there are some regulatory constraints on media businesses (such as ownership, broadcast licensing, etc.), as well as civil liability for libel, copyright infringement, and the like, there are few restrictions on media content. In an ideal sense, journalists and news media would be an unofficial estate of government that would report on government activities, elected officials, as well as other powerful private interests to hold them accountable to the public. At the same time, there are business and financial pressures on news and media companies, in addition to interest groups, government actors, and others that use media to set and shape the country's political agenda.

In the classic model of democracy, the public is expected to be informed by the news media, relying on its constant coverage and interaction with the government. An engaged public then makes informed decisions when voting for candidates and referenda. However, critics of this model, such as Herman and Chomsky (1988, 2002),⁴ argued that most of the public is not up to following politics because they are too busy working and raising children, and therefore cannot often make informed decisions in their own interest. Rather, Herman and Chomsky see a competition of elite interests manufacturing the consent of the governed. This happens when a generally apathetic public is prone to the oversimplification of complex issues as they are often presented in news media. The public is also seen as subject to diversion from the wide area of entertainment and sports programming. More specifically, Herman and Chomsky noted that national elite media (such as CNN, *New York Times*, and others) set the broader political and public policy agenda that local outlets tend to follow through the selection of topics, emphasis, framing, support from advertisers, as well as other interests involving ownership. Through this filtering process, most news content reflects the interests of elite groups.

In this model of democracy, there is an ongoing competition of elite interests, which includes the two major political parties (Republicans and Democrats), government agencies and actors, think-tanks, and the media itself. Meanwhile, the public is marginalized and tends to follow the framing of issues provided by their own favored group of elites. In the age of online and social media, though, these new platforms could potentially be seen as more of a mediator between the government and society. Utopian assumptions about cyberspace and politics were described by Dyson et al.'s (1994)⁵ famous article, which predicted increased access to knowledge and information that would help democratic principles

flourish. In essence, the internet showed potential of becoming a real marketplace of ideas, or as a federal court said in 1996, “the most participatory form of mass speech yet developed.”⁶ Throughout the 1900s, US jurisprudence about the content or quality of speech had often relied on the marketplace of ideas and metaphors.⁷ For that matter, the courts had loathed to allow government regulation of speech online. Likewise, in Congress, Section 230 of the Communications Decency Act of 1996 gives broad immunity to interactive computer service operators for third-party content that is posted on their platforms.⁸ The idea was that “for user speech to thrive on the Internet, it had to protect the services that power users’ speech.”⁹

Not all early philosophies about mediated communication in cyberspace were so optimistic. Fortner (1995) suggested that the plethora of information and perspectives available on the internet would be so excessive that people would limit their consumption of information to only a few familiar areas and would “decreasingly interact with those of unlike minds” and splinter groups further apart.¹⁰ By the mid-2010s, the political discourse that took shape on the digital platforms fell even further short of the lofty goals expressed by Dyson et al. Rather, much of the political content on social media outlets, such as Twitter and Facebook, were in the form of memes, or short, decontextualized, and highly emotional posts. Even worse, these hastily formed posts on social media were often forged within a stream of disinformation campaigns, unwitting misinformation, and steeped within cultural politics. This ilk of discourse is not utopian, or traditional, and was least of all ideal for a body politic that would be best rooted in reasoning and common knowledge. Instead, the notions of reason and truth are vexed within a barrage of hot-takes and pithy memes in which no source of information or perspective is more or less credible than any other. Within this digital discourse, the most raucous mob tends to shout down the more reason voices.

During the COVID-19 pandemic erupting in 2020, there were multiple examples of mob rule online. There were unfounded conspiracy theories that somehow “5G” (which merely refers to a technical standard for cellular telecommunications) caused coronavirus.¹¹ Conspiracy theorist Alex Jones used his website and radio show available online to peddle his own brand of toothpaste that he falsely claimed treated coronavirus.¹² There was also a plethora of tweets that claimed without scientific proof that hydroxychloroquine would treat or prevent COVID-19, which were echoed by celebrity hosts on Fox News, and then President, Donald Trump.¹³ Later, a right-wing anti-vaccine group, praised by Trump, pitched similar claims about Ivermectin to fight coronavirus.¹⁴

Each of the social networks in these cases has interlinkage with radical-right political movements, most notably related to former President Trump, and what has been commonly described as “Trumpism” or the “MAGA” movement (referring to Trump’s campaign slogan from 2016 to “Make America Great Again”). Trump’s brand of anti-elitism, populism, and authoritarianism was pushed far past the margins of mainstream politics and appealed to extreme-right political interests in a way that had not been seen before in contemporary US political culture. However, Bonikowski et al. (2022) have argued that Trump did not necessarily invent a new form of politics, but rather combined “negative evaluation of elites, low national pride, and authoritarianism” into an “explicit evocation of exclusionary nationalism” that had previously been bubbling below the surface of national politics.¹⁵ In other words, Trump merely exposed and exploited deep-rooted cultural sentiments, which became a larger political movement. This is why we need a deeper examination of the social networks wherein these sentiments were rooted.

Digital Politics and Affective Polarization

Our inquiry begins here. Informed by critical theory and using social network analysis (SNA), we examine the use of emotional appeals in Twitter posts about social, cultural, and political topics. We are concerned about the quality of civic discourse that took place online and question its ultimate impact on democratic self-governance and society’s ability to engage in collective reasoning. What Trump and Trumpism seemed to demonstrate since 2016 is the power of emotion and hyperbole in crafting political and cultural narratives against more practiced forms of reasoning. While the political left and traditional elites are more likely to call on expertise and prepare to engage in a battle of experts, Trump and the far political right are absorbed in a war of cultural politics that is rooted in personal experience and emotion. Rather than a contest in which both sides are abiding by a common set of rules to engage in discourse and mutual compromise to settle policy disagreements, political groups are becoming more polarized over their emotions about the other group.

This phenomenon has been described by American political scientists as “affective polarization” – referring to the increasing dislike and distrust ordinary Americans feel toward others who are not in their own political party (see Iyengar et al., 2019).¹⁶ However, this polarization based on negative feelings and emotions about others has little to do with any differing policy preferences.¹⁷ Rather, it is mainly rooted in otherness and tribalism,

and the phenomenon has progressively worsened as feelings of dislike and distrust about others have turned into bitter anger and deep resentment (see Mason, 2018).¹⁸ A notable example of this kind of transformation was explained by Druckman et al. (2021) in their study of how partisan animus shaped opinions during the coronavirus pandemic in 2020.¹⁹ Druckman et al. (2021, p. 28) found a “strong association between citizens’ levels of partisan animosity and their attitudes about the pandemic, as well as the actions they take in response to it.” Even policy discourse about a common health emergency became a battleground for affective partisan hostility.

Reason, Knowledge, and Affective Politics

When considering discourses of emotion over reason in politics, Nietzsche²⁰ merits some consideration as well. In the *Genealogy of Morals*, Nietzsche (1956, p. 219) attacks the idea of a “commonwealth” as nothing more than “a pack of savages, a race of conquerors, themselves organized for war and able to organize others, fiercely dominating a population,” and adding that this was “the beginning of the human polity.” Later in this treatise, Nietzsche further derides the concepts of “reason,” “knowledge,” and “intelligence” and claims that all knowing is essentially a matter of perspective (Nietzsche, 1956, p. 255). While his philosophy was the basis of a lot of poststructuralist and later postmodern thought, we wonder here whether it also describes our current moment of affective polarization as a savage resentment of reason and an ethos of anti-knowledge? Or, perhaps, it is an “ascetic ideal” of sorts that is “fighting tooth and nail for its preservation” (Nietzsche, 1956, p. 256)?

McIntyre (2018) described the current moment in which knowledge and reason have been highly contested by “alternative facts” and feelings over evidence as “post-truth.”²¹ Moreover, McIntyre moves the discussion from affective polarization to its roots within right-wing politics, before the 2016 presidential election. According to McIntyre, the political right used postmodernism’s ideal that there is no such thing as objective truth to attack science and facts that were inconvenient to them. Thus, if the political left uses science, facts, and experts to substantiate their policy preferences, the right’s strategy is to reject those forms of knowledge and compel others to believe the opposite, despite evidence to the contrary.

In order to further understand “post-factual politics,” Durnova (2019) emphasizes the role of emotion in knowledge-making and public discourse.²² Boler and Davis (2018) advanced the conversation about

post-truth and affective politics to include consideration of “algorithmic governance and computational propaganda.”²³ They suggested the concept of “networked subjectivity” for understanding how algorithms feed particular political narratives in digital media spaces through an “affective feedback loop” based on user likes, comments, and other forms of engagement with content.

What about the Role of News Media in Digital Spaces?

When considering affective politics on social media, we may also question the role of news media in these spaces as well. News media, particularly journalism institutions in print and on television, were idealized at a time as being an arbiter of facts. People knew something to be true because they saw it reported on television. When examining how political communities are defined by network structure, our data visualizations showed that in discourses about politics and science, news outlets and individual journalists provided structural bridges between distant poles of the network. Can news media and journalists serve as a connective tissue that bridges the gaps of affective polarization, or other fractured chunks of the digital world? If so, we must keep in mind that this structural role (as a bridge actor) is distinct from an epistemological one. And this is a critical point because the institution of journalism itself has been swept up in affective politics and polarization.

On cable television alone, there is polarization between networks on the left (MSNBC and CNN) and those on the right (Fox News, Newsmax, and OAN). Moreover, former President Trump regularly derided mainstream news outlets (e.g., NBC, *New York Times*, CNN, etc.) as being “fake news.” During the coronavirus pandemic, Fox News, President Trump, political pundits, and conspiracy theorists online wrongly blamed “the media” (meaning, the so-called liberal media) for exaggerating the threat of COVID-19.²⁴ Right-wing-oriented news media regularly stoke similar narratives about distrust in government, universities, and science.

Former Fox News host Tucker Carlson has even gone as far to say that he was “open” to the flat earth theory because “there’s been so much deception that you can’t trust your preconceptions.”²⁵ Although it was not exactly clear where Carlson thought so much “deception” was coming from, he later added that the idea that history ascends toward “enlightenment and technological progress” is “a complete lie” (see Venegas, 2023, Dec. 16). Carlson eventually uses historical research and climate science as his sharpest examples for his distrust. “The most basic

stories we've been told about history, about the Earth," said Carlson, "has been completely changed by climate change for millions of years ... then it's like, I don't know, what is true" (Venegas, 2023, Dec. 16). This take by the former Fox News pundit illustrates a post-truth attitude that favors emotion over reason, as well as a rhetoric that completely rejects enlightenment thinking.

Rhetoric, Public Discourse, and the Body Politic

Against this political backdrop, political scientists and psychologists have recently demonstrated that the "norm-violating" rhetoric deployed by influencers such as Carlson in the post-truth discourse taking hold today can "erode democratic norms" and "can undermine basic principles of American democracy."²⁶ These studies refute the broad dismissal of rhetoric as empty words without the power of action to harm. More specifically, this research disproves the insistence of Republican politicians that the incendiary and violent rhetoric used by Trump should not be viewed as harmful, since his statements are only words. For example, Senator Mike Braun insisted during the 2020 election run-up that Trump "stokes the fire sometimes," but "if you took it seriously, it would be alarming. And I don't think that's the case."²⁷ In a similar act of evasion, Senator Ben Sasse dismissed the possibility of Trump refusing to step down from power after his loss: "He says crazy stuff. We've always had a peaceful transition of power. It's not going to change."²⁸ The events of January 6, 2021, reveal the hollowness of such easy dismissals of rhetoric.

Our approach echoes the arguments of Lloyd Bitzer who influentially returned attention to classical models of rhetoric. For Bitzer, "classical theories of political rhetoric" are not simply "arcane notions" from a distant past, but rather give us a rulebook for "the engagement of motives, principles, thoughts, arguments, and sentiments in communications—an engagement which functions pragmatically to form attitudes and assist judgments regarding the broad range of civic affairs. Political rhetoric serves the art of politics at every turn, both as a mode of thought and as an instrument of expression and action."²⁹ He insists that turning to classical rhetoric in the present day will allow us to learn from the hard-won lessons of the past – "The classical theories of political rhetoric provide for us rich principles and distinctions won through dialectical struggle with hard problems of government and civic affairs: Where is the location and what is the use of power and authority? Where and what are the sources of premises? To what extent must political discourse exhibit truth and moral quality?"

Building from these arguments, we aim to develop a new paradigm to understand rhetoric's concrete effects on networked social systems, by combining computational methods with a historical understanding of rhetoric as the linguistic connective tissue of public discourse. In doing so, our work re-situates and reclaims rhetoric and its power to interpret language in the public arena as it has for much of Western history, from its current pejorative vernacular usage as empty speech devoid of the substance of action. For two and a half thousand years, however, rhetoric was the master discourse of precisely the opposite idea – how speech was a form of action, or at least artfully designed speech and language could exert real, social, psychological, and even physical effects on a public audience principally through the manipulation of language patterns to appeal to the rational faculties and to inflame the passions, with the goal of persuading others to think and to act in a certain way.

Rhetoric defined broadly as the “art of persuasion” was the “center of what we now call the liberal education,” and originated in the fifth century BC in Sicily.³⁰ Over the centuries, the particular nuances of defining rhetoric varied from Cicero's three-fold logic of three “offices”: to teach, to please, and to move.³¹ Francis Bacon made rhetoric a function of reason: “the duty and office of rhetoric is to apply reason to imagination for the better moving of the will.” G.R. Kerford acknowledges that rhetoric is “now an old-fashioned term,” but connects its practices to the present as “the whole art of public relations and the presentation of images,” to the extent that persuasion in language and the ways that an idea can take hold in the popular imagination “is not accidental, but depends on the presence of specific features. The study of these is the study of the art of rhetoric.”³² Richard Lanham attempts to define rhetoric “using a strictly contemporary terminology” as “the science of human attention structures,” which continue to have relevance in the digital era. Scholars of rhetoric in recent years have used a strategy like Lanham's to trace connections and resonances between the past and the present to understand how historical rhetorical practices “map onto” our contemporary society. Another school of thought in the rhetorical field, represented best by Douglas Eyman, argued that reimagining rhetoric in the digital world should not rely on historical parallels between then and now, but rather requires a more active work of applying rhetoric intentionally to the present, resulting in the discipline of digital rhetoric.³³

We find value in both arguments to refresh rhetoric for the present day, but they do not reflect the motivations or methodology of our study. Rather, we chose to turn to the power of classical rhetoric as our heuristic framework for two very specific historical reasons appropriate for the American political context.

First, classical rhetoric was the master blueprint for over 2,500 years, from ancient Greece to the late nineteenth century, to understand how the push and pull of reason and emotion – *logos* and *pathos* – shaped the body politic, and theories of rhetoric were the foundation of the political philosophies of Machiavelli, Hobbes, Locke, and, as we shall see, the framers of America’s political institutions in the late eighteenth century. Rhetoric envisioned the body politic in terms of interactive exchanges of persuasive speech acts between people connected in a society and, at a broader scale, of how political and social debate could be bent and twisted by persuasive language. In this capacity, rhetoric was a truly universal theory of the fabric binding individuals into a body politic across many centuries. As Victoria Kahn has demonstrated, every schoolchild from the Renaissance to the nineteenth century would have been deeply familiar with Aristotle, Cicero, and Quintilian as the core of their curriculum.³⁴ The astonishing universality of rhetoric in intellectual and public life has been too frequently overlooked in studying social history.

Second, due to the universal place and enduring historical impact of this classical paradigm, rhetoric served as the logical and linguistic core for America’s early statesmen in crafting founding documents such as the Declaration of Independence. In many ways, we are motivated by an impulse to uncover the hidden watermark of classical rhetoric underlying the uniquely American historical context at the founding of the Republic. John Adams, the second US President, for example, “invoked Cicero as a model of emulation” in political discourse.³⁵ Thomas Jefferson directly cited his debt to the “elementary books of public right, as Aristotle, Cicero, Locke, Sidney, etc.” as the bedrock of his influences, and in an 1824 letter describes how he purposefully envisioned the American nation as one intrinsically defined by the rhetorical powers of reason and persuasion.³⁶

In a republican nation whose citizens are to be led by reason and persuasion and not by force, the art of reasoning becomes of first importance. In this line antiquity has left us the finest models for imitation, and he who studies and imitates them most nearly will nearest approach the perfection of the art.³⁷

In this remarkable quote, Jefferson identifies the art of reasoning and persuasion by the rhetoric of classical antiquity as the idealized template for participating in democratic life, which all American citizens should strive to imitate and perfect. Indeed, Jay Fliegelman’s work on Jefferson’s use of diacritical marks, indicating dramatic pauses, stresses, and other

verbal oratorical flourishes, in his manuscript drafts of America's foundational documents demonstrate the extent to which Jefferson incorporated the methods of classical rhetoric and oratorical address into his own writing and thinking.³⁸

Based on this understanding, we will use the historical blueprint of classical rhetoric as a uniquely appropriate lens to understand our current digital body politic on social media in terms of what Jefferson pinpoints – rational and emotional persuasion – as the two countervailing forces woven into the fabric of American public discourse from the very origin of the republic.

Through our analysis, we find the universal traces of rhetorical strategies appealing to reason and emotion throughout the current public discourse, but with an important caveat. Today, public figures have departed significantly from the classical and Jeffersonian insistence on rhetoric as an instrument of public virtue suitable for all citizens to imitate, in alignment with Cato's moral vision of a skilled orator as *vir bonus, dicendi peritus* ("a good man, skilled in speaking"). Rather, our network models indicate instead that current rhetorical strategies veer more toward Machiavelli's Renaissance modification of rhetoric, which transformed virtue into *virtu*, or power, and which mobilized rhetoric as a tool that could be "used well or badly," rather than for good or evil.³⁹ As we shall see, this shift into contemporary rhetorical relativism that envisions rational and emotional persuasion as a means to a political end used well or badly, rather than an end in itself toward the common good to which political thinkers from Aristotle to Jefferson aspired, will become an important part of the story we have to tell.

The move to the rhetorical relativism of using language "well or badly" emerges in two ways during our analysis. First, we found that any single political faction or social movement did not monopolize or even favor rational or emotional uses of language. Rather, we suggest that a range of linguistic and expressive strategies afforded by rhetoric were a universal toolkit of sorts used by all parties on the political spectrum to elicit specific responses by manipulating the levers of reason and emotion from the public audience on Twitter. Second, we found two major rhetorical moves – *epideixis* (or praise and blame) and *in utramque partem* (or arguing from both sides) that embodied the ethos of using language "well or badly," rather than in the service of a common good. In particular, we found that Twitter superusers of all political allegiances made significant use of seemingly opposing logic – praise and blame, and claims for and against – to advance highly motivated political and social arguments as opposed to a shared sense of the good or the just.

Learning from History: How the Language of Reason and Emotion Shape the Body Politic

If we have established above that rhetoric was the dominant theory of understanding public discourse for over two millennia, and that the American founding fathers such as Thomas Jefferson, John Adams, and John Quincy Adams all invoked classical rhetoric as the substrate of the American political experiment, the question remains: what exactly were the strategies in language that rhetoric provided?

We can begin with Aristotle's body of work as a useful departure point, particularly the *Rhetoric*, *Poetics*, *Politics*, and *Nicomachean Ethics*, which all touch on rhetoric's ubiquitous influence on social life. For Aristotle,

The just and the unjust, and all the others who are said to act in accordance with their moral habits, will act from the same causes, either from reason or emotion, but some from good characters and emotions and other from the opposite.

*(Poetics 109)*⁴⁰

Reason and emotion are universal causes of all action, whether moral or not, by both the "just and the unjust." Emotions hold power since they represent "all those affections which cause men to change their opinion in regard to their judgments." Aristotle carefully acknowledges that proof and the establishment of plausible arguments can persuade through logic, but an equally potent means of persuasion lies in emotional appeals that can directly intervene to "change" existing opinions and judgments. Emotional rhetoric differs from rational logic because they "are accompanied by pleasure and pain; such are anger, pity, fear, and all the similar emotions and their contraries."⁴¹

The setting for the rhetorical appeals described by Aristotle is the classical assembly of the Greek city states, where statesmen would attempt to steer the course of a political debate by guiding the gathered audience of voting citizens to a specific judgment or action by the dual mechanisms of stimulating their rational faculties while also inflaming their passions with charged language. So, for Aristotle, political oratory directed at a public voting audience was the original condition for rhetoric.

It is evident then that it will be necessary for the speaker, by his eloquence, to put the hearers into the frame of mind of those who are inclined to anger, and to show that his opponents are responsible for things which rouse men to anger and are people of the kind with whom men are angry.

(Poetics, 185)

By means of the speaker's eloquence, he can transform the audience's "frame of mind," driving them into a frenzy of anger "to show that his opponents are responsible for things" in a strategy of blame that is frequently used on social media today. Aristotle, however, remains hopeful in his rhetorical theory and insists that "friendship is the motive of social life," and that the network of "political fellowship" that constitutes the state amounts to a community of friends working together toward "a happy and noble life." The decisions and actions of the citizens governing the "social life" are "not merely for living in common," but rather should strive to an ideal of "civic virtue" for all.

Aristotle's idyllic portrayal of the "social life" as a network of friendships underpinning the state sees a considerable revision in the writings of Cicero. Cicero agrees that "the strongest alliances and most sacred friendships have been formed not only by the use of reason but also more easily by the help of eloquence."⁴² Additionally, Cicero echoes Aristotle in classifying "oratorical ability as a part of political science," and specifically, the "function of eloquence seems to be to speak in a manner suited to persuade an audience, the end is to persuade by speech."⁴³ For Cicero, rhetorical persuasion is not only words arranged into convincing speech, but at a deeper level, "the material of the art of rhetoric" includes "those subjects with which the art and power of oratory are concerned." The political "subjects" – a society's body politic – receive "the art and power of rhetoric" and their vulnerability to its power constitutes the social fabric that binds us together into higher-order structures and compels us to move in a common direction.

Unlike Aristotle, however, the use of rhetoric in Cicero's hands gains a sharper edge. He envisions the ideal statesman as "the man who equips himself with the weapons of eloquence" to advance "both his own interests and those of his community."⁴⁴ Deviating from the common good of "civic virtue," Cicero insists that rhetoric amounts to the "weapons of eloquence" that are useful to the extent that they are used to advance specific narrow interests – "his own interests and those of his community" – and not the universal good. As Quentin Skinner has suggested, "the need for rhetoric stems from the fact that, as Cicero repeatedly emphasizes, reason lacks any inherent capacity to persuade us of the truths it brings to light. This is why the persuasive force of eloquence must always be added if reason is to be empowered and given effect."⁴⁵ If in Cicero's line of thought, reason reveals truth and rhetoric persuades others of the truth, then he speculates that "cities were originally established not merely by the ratio of the mind, but also, and more readily, by means of *eloquentia*."⁴⁶ Where Aristotle balances the powers of rational logic and emotional address in his model of rhetoric, Cicero muses that "Wisdom in itself is silent and powerless to speak" and therefore "wisdom without eloquence cannot do the

least good for cities.”⁴⁷ Cicero’s influential model of rhetoric transformed persuasive address from a technique of political oratory into something far more important – the basic connective tissue of society – that stands as the first principle of establishing common truths and then persuading others in the community of their validity.

Skinner has argued that Cicero’s definition of rhetoric as the building blocks of society was hugely influential in the establishment of modern political thought, and that political philosophers and statesmen from the Renaissance to the nineteenth century “endlessly returned” to these lines from *De Inventione* as a point of departure. Major influences upon Jefferson and Adams, such as Thomas Hobbes, John Locke, and Sir Philip Sidney, all based their theories of political contract, which undergird the modern design of the nation state, upon Cicero’s understanding of reason and emotion as the lifeblood of society.⁴⁸

The enduring power of rhetoric across the centuries lies in its practical nature. Aristotle, Cicero, Quintilian, and their followers did not envision rhetoric as a theory of language, but rather an applied toolkit of sorts to shape language into patterns that provoked predictable and repeatable emotional and rational reactions in an audience. For the sake of simplicity, Cicero breaks down rhetoric into three major overarching goals: to teach (*docere*), to delight (*delectare*), and to persuade (*movere*). As Edward Corbett has suggested, Cicero’s model held the greatest sway in influencing the era of the Enlightenment and the Scientific Revolution, where “Descartes, Bacon and Newton” drew attention to the “expository and didactic functions of discourse” to supplement the historical emphasis on the elements of persuasion and delight that define the political work of Machiavelli, Hobbes, and Locke. The strong influence of Ciceronian rhetoric on this illustrious range of Enlightenment thinkers set the stage for the education of America’s founding fathers and served as the intellectual backdrop for Thomas Jefferson’s praise for rhetoric and its appeals to reason and emotion as the foundation of American citizenship and for John Quincy Adams’ position as Harvard’s Boylston Professor of Rhetoric.⁴⁹

In the following chapters, we apply the centuries-old paradigm of rhetoric as the dominant theory of understanding how reason and emotion functioned in language and produced political and social effects in the public sphere. Our unconventional implementation of this rhetorical mode of analysis uses computational methods including SNA and natural language processing to understand the structure and meaning of public discourse as it occurs on social media, and specifically on Twitter.

In Chapter 3, we turn our focus to SNA and how we blend traditional scholarly uses of SNA to further understand the role of rhetoric in the promulgation of effective disinformation and misinformation

online. As we will see, it is not enough just to know the originators of disinformation and misinformation, as well as the bridge-actors that connect otherwise unrelated groups of social networks that facilitate its spread. We also need to include in our SNA-based analyses critical questions about the impact of certain rhetorical discourses online, along with corresponding political and economic factors, to more fully understand how the combination of these variables stokes a digital marketplace of irrationality and rage that we have experienced over the past several years.

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SECTION II

Networked Insights

3

DEFINING THE MARKETPLACE OF REASON AND RAGE

Rhetorical Analysis, Social Network Structure, and Natural Language Processing

In this chapter, we will acknowledge and describe the unconventional mixing of methods in our analysis, which brings together techniques from the humanities, social sciences, and computer science that rarely come into contact. We are motivated by a desire to add a humanistic lens of language and rhetoric to a data-driven analysis of social media and its influence on the contemporary political landscape in the era of post-truth.

We selected the COVID-19 public health crisis as the main test case for three reasons. First, because of its universality – no other event in recent history implicated every person on the globe. Second, because of its digital nature – because of social distancing, the public debate played out predominantly in a virtual format on social media. Third, COVID-19 arguably represents the last truly ubiquitous global event before Elon Musk’s acquisition and rebranding of the platform as X, which witnessed its decline and reduced significance as a proxy for public debate and conversation in digital culture.

To assemble our archival data, we gathered a representative social media dataset from Twitter to perform a large-scale study of public discourse in the digital domain that captures all the tweets related to COVID-19 in the first eight months of the pandemic in 2020. We then employed two computational methods to process, organize, and give structure to the COVID-19 data. First, we used social network analysis (SNA), which has been used extensively in the computational social sciences and digital humanities, to map the interactions and relationships between users on the social media platform. Second, we adapted unsupervised machine learning methods to

understand the language patterns at play in the debates and controversies emerging from the public health crisis. As our final analytical step, however, we did not use machine-based methods to infer meaning or significance from our computational models. Rather, we applied a humanistic method of rhetorical analysis as a way to make sense of models and their underlying layers of meaning through a careful textual description of language use shaping the interactions between users, in what can be described as a digital ethnography.

Extending from our consideration of classical rhetoric in Chapter 2, we purposefully adopted a historical and humanistic approach to our methodology that uses rhetoric as a systematic linguistic methodology to analyze and interpret the data reflecting contemporary public discourse on social media. Our method builds from the domain of digital rhetoric, which Douglas Eyman defines as “the application of rhetorical theory (as an analytic method or heuristic for production) to digital texts and performances.”¹ In a similar vein, Jonathan Bradshaw draws historical parallels between the methods of digital rhetoric and classical models of rhetoric, such as accumulation or *amplificatio* in his case, noting “it is remarkable how closely these Roman theories of accumulation map onto 21st century digital practices.”² James Porter goes a step further by aiming to “resuscitate and remediate the rhetorical canon of delivery” in his work, arguing that “with the emergence and, now, ubiquity of internet-based communication, it is long past time to revive” classical rhetoric for the present digital era.³ Porter’s focus on *amplificatio* and tactics of rhetorical accumulation and Porter’s recovery of the canon of delivery (*actio*) set the stage for our analysis.

We differ, however, methodologically from these previous theorizations of digital rhetoric in important ways. To illuminate these differences and the novel contributions of our method, we will trace a short multidisciplinary history of the study of networks – manifested as sociograms, SNA, network science, and actor-network theory (ANT). To sharpen our methodological contrast to existing studies, we also describe sentiment analysis and its rise over the past decade as the predominant technical method for studying affect and emotion on social media networks. Finally, we define our methods in detail, with particular attention dedicated to how we aim to integrate digital methods with the humanistic analysis of social discourse.

A History of Social Network Analysis: Sociograms, Weak Ties, and Network Science

Network analysis originates in the German social theories of Simmel, Vierkandt, and von Wiese in the 1930s. All three theorists made extensive use of metaphors of “webs” and “networks” alongside textile metaphors such

as “interweaving” and “fabric” to describe society’s structure.⁴ During the same period, social psychologists began to invoke networks as an explanatory framework for interpersonal relationships. For example, Jacob Moreno and Helen Hall Jennings defined “psychological well-being” as being related “to the structural features of what he termed ‘social configurations,’” which are the “results of the concrete patterns of interpersonal choice, attraction, repulsion, friendship, and other relations in which people are involved, and they are the basis upon which large-scale ‘social aggregates,’ such as the economy and the state, are sustained and reproduced over time.”⁵

From these ideas, Moreno and Jennings developed the “sociogram” as a visual representation of “social configurations,” with individuals represented as “points” and their relationships depicted as “lines.”⁶ Moreno’s social psychology served as an important methodological shift from descriptive metaphors of networks and webs to actual representations of social interactions abstracted in the form of analytical diagrams (Figure 3.1).

The second phase in the development of network analysis as a method occurred in the late 1940s with the work of George Homans at Harvard University’s Sociology department. Homans observed that social relationships could be expressed mathematically in a matrix, or a two-dimensional table, where rows defined individuals and columns indicated events. Homans’s matrix permitted a new type of social analysis where specific people could be associated with events by counting who was present at any given event, leading to a more comprehensive picture of how events shape relationships and interactions between individuals.⁷

In the 1970s, network analysis became a major methodology in sociology, particularly with the publication of Mark Granovetter’s famous “Strength of Weak Ties” study that revealed how faint social interactions in a network have a greater impact than more obvious strong ties between people. In the case of the job market that Granovetter examines, “acquaintances are more likely to pass job information than close friends.”⁸ The sociological research of the 1970s led to a renaissance of sorts where network analysis became a prominent methodological tool in the discipline, with Wasserman and Faust’s publishing a now-classical text that brought network analysis to the mainstream of sociology.⁹

Network analysis was further revolutionized in the late 1990s with the adoption of the method within scientific and mathematical circles. This shift was triggered specifically by two almost simultaneous publications by Watts and Strogatz (1998) and Barabási and Albert (1999). These two papers introduced the notion of “network science,” which expanded the explanatory power of networks beyond the sociological realm of social

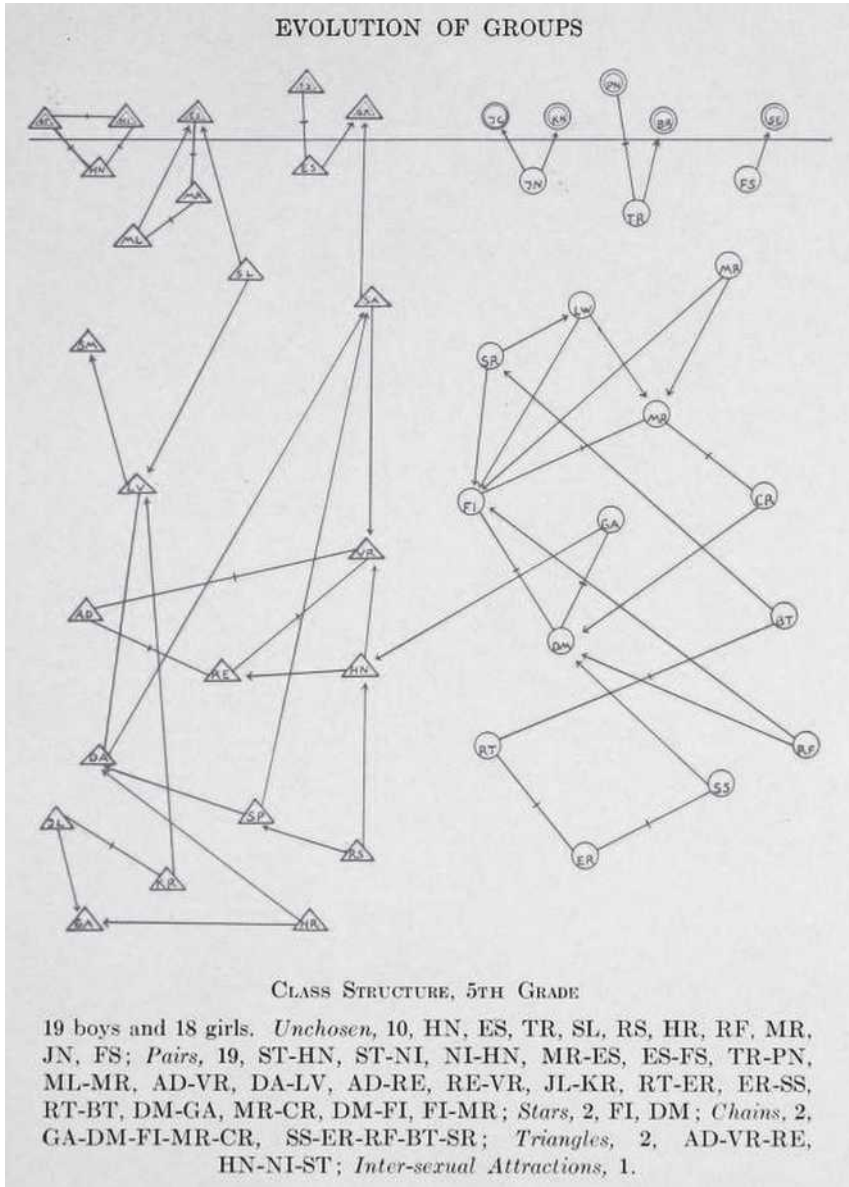


FIGURE 3.1 Moreno and Jennings' sociogram (Moreno, 1934).

interactions to a grander paradigm capable of explaining the underlying mechanics of complex systems in general as they occur in the natural and physical world, including biological processes at the cellular, organism, and ecosystem levels, chemical reactions and molecular structures, and the mathematical underpinnings of complex experimental and theoretical phenomena in physics.¹⁰

Both teams invoked the random graph model of Erdős and Rényi (1959) as the inspiration for their bold assertion of a universal logic underlying all complex networked systems.¹¹ By describing the specific networked behavior of the world-wide web, the US power grid, and collaborations between actors, both publications introduced a universal principle – what Watts called a “small-world” network and the “scale-free” network in the case of Barabási – that led to the creation of the new interdisciplinary field of network science. Barabási has developed a professional reputation for pushing the concept of the scale-free network to a level of universality equal to the status of a physical law. However, his aggressive claims of universality have provoked much controversy, triggering substantial, and at times fierce, debates among scientists over the past two decades.¹²

The controversy attending the rise of network science emerged as a reaction to Barabási’s overarching assertion that for all types of complex networks, regardless of domain or of how nodes and edges are defined within the network structure, new nodes tend to be attracted to the most-connected existing nodes, in an analogue to the Matthew effect where “the rich get richer and the poor get poorer.”¹³ Barabási argues that this behavior is “scale-free” because the disproportionately attractive power of connected nodes exists at every scale, from the smallest interpersonal networks with two to three nodes to the most complex networks in biology and physics containing in excess of hundreds of millions of nodes. The mathematical outcome of the scale-free principle dictates that all networks can be described quantitatively by a power-law distribution, a paradoxical curve where a disproportionately small number of nodes dominate a network by accounting for the vast majority of all connections, and with a large trailing trail of datapoints representing most nodes in the networks that reflect a vanishingly small number of links in the overall structure.

The grandiosity of Barabási’s claims provoked significant controversy in the subsequent two decades, particularly in response to his persistent assertion of an underlying “universal law” of scale-free networks as the key to understanding all complex systems.

Nature normally hates power laws. In ordinary systems all quantities follow bell curves, and correlations decay rapidly, obeying exponential

laws. But all that changes if the system is forced to undergo a phase transition. Then power laws emerge—nature’s unmistakable sign that chaos is departing in favor of order. The theory of phase transitions told us loud and clear that the road from disorder to order is maintained by the powerful forces of self-organization and is paved by power laws. It told us that power laws are not just another way of characterizing a system’s behavior. They are the patent signatures of self-organization in complex systems.¹⁴

One reason for the furor surrounding the scale-free status of networks lies in the interdisciplinary expansion of network analysis methods from the disciplinary bounds of sociology to the broader domain of network science that aspires to be a transdisciplinary field. Scholars from many domains and methodological traditions have found value in network analysis techniques, but this diversity of thought has revealed conflicting underlying assumptions about the basic nature of academic inquiry. “Biologists have been little concerned about whether their findings might achieve the status of a law ... physical scientists, however, come from a different tradition – one in which the search for universal laws has taken high priority.”¹⁵

The quest for universal laws notwithstanding, the debate surrounding scale-free networks and their underlying power-law behavior has been fueled by critiques of network science’s blind eye to prior work of sociologists, anthropologists, and psychologists, which we have noted above as setting the stage for the study of networks earlier in the twentieth century.

A contemporaneous network-based paradigm that addresses the oversight of the social sciences in network science is ANT, introduced by Bruno Latour and John Law in the 1990s.¹⁶ ANT was inspired by the work of the anthropologist Michel Callon, whose exacting analysis of the network of humans, objects, and processes defined the interaction of economics, culture, and ecosystems in the scallop fishery of St. Brieuc Bay.¹⁷ ANT is “based on the principle that *all* the factors involved in a social situation should be placed on the same level,” in a flattened hierarchy where people, animals, things, technology, organizational structures, and cultural practices are all studied in relationship with one another.¹⁸ However, ANT as a methodology has been less interested in SNA as such, and its practitioners focus on dense explanatory descriptions of actors thickly embedded in systems as a way to show how social effects emerge from the complex interplay of humans, power arrangements, environmental context, cultural practices, and the instruments of technology in an insistently

context-specific consideration of minute particulars that resists network science's universal claims of law.

Despite their obvious differences, the emergence of network science and ANT in parallel has contributed to what Ruth Ahnert and her colleagues have termed the “network turn,” or “a whole host of converging thoughts and practices around the turn of the new millennium – the zeitgeist of the networked age” that has brought the study of networks in their various forms to the center stage of research on social systems.¹⁹

Social Media and Measuring Sentiment in Language

Based upon the history of SNA across the past 100 years described above, one would be correct in concluding that the layperson's current understanding of social networks as internet social media platforms, such as Facebook, Twitter/X, Instagram, YouTube, and TikTok, among others, does not play a central role in the story thus far. We can point to two reasons for social media's conspicuous absence. First, it should be apparent from the previous section that SNA has a long and cross-disciplinary history that predates the creation of social media companies around 2004. Second, social network research has largely focused its analytical power to better understand the behavior of biological or physical systems, on the one hand, and macro-level social structures such as organizations and human populations, on the other. Although Barabási's foundational paper did focus on the early structure of the world-wide web, he quickly used the technology-based network as a point of departure for much larger claims about complex systems in general, beyond the narrow scope of internet culture.

In a different scholarly tradition, researchers have studied social media platforms, and specifically the prevalence of emotion and reason at the heart of the present argument, using a methodology called “sentiment analysis,” which “should be treated as a branch of machine learning, data mining, natural language processing (NLP), and computational linguistics, which also borrows from sociology and psychology.”²⁰ Sentiment analysis first emerged in economics and business research as a way to understand consumer opinion regarding targeted products and brands on the internet in user surveys, focus groups, reviews, and social media posts.²¹ Social scientists subsequently adopted the consumer market surveillance technique as a way to study the content of political and cultural debates on social media platforms.

By and large, sentiment analysis on internet data isolates individual words and phrases, parts of speech, emotional markers in language, and

other linguistic features to place social media content on a spectrum of sentiment that spans positive, neutral, and negative valences of human emotion. A large body of scholarly literature from the past twenty years has applied this sentiment-based approach to questions as eclectic as population-level responses to political events, vitality patterns in response to online posts, and most recently has attempted to predict disease spread patterns, the results of political elections, stock market booms and crashes, and global happiness levels, among many other topics.²²

A recent set of studies in psychology, however, questioned the appropriateness of sentiment analysis to measure emotional experience on the internet. As one example of this recent twist, Kross and colleagues suggest that counting words to glean online sentiment fails to recognize how linguistic and cultural context shape sentiment and meaning.²³ More significantly, these critical studies have more fundamentally questioned whether the use of emotional language on social media platforms accurately reflects the underlying emotional state of users at all. They point specifically to how people carefully manage their online personas in ways that do not allow us to draw a clear line of correspondence between their digital speech and their emotional experience. Despite the heavy reliance of sentiment analysis research on social media content as a proxy for emotional expression in a digital space, “evidence to support such claims remains scarce.”²⁴

As a remedy for the problems arising from sentiment analysis’s overreliance on word counting, Brady and colleagues have proposed that a structural approach to untangle the feedback loops governing user behavior through platform-specific reward mechanisms (including followers, likes, shares, and comments) may offer a more accurate picture of emotions such as outrage.²⁵ In their series of studies, Brady’s team has demonstrated that emotional discourse on social media is shaped directly by feedback loops created by platforms to incentivize user engagement and “network-level norms of expression” that bind subcommunities characterized by affinity and shared ideology together. In this methodological alternative to sentiment analysis, intentional “digital platform design” – the network structure built by social media companies to drive user engagement – shapes the use of emotional language in the digital age.

The Language of Emotion and Reason Shapes Network Structure: Combining Machine Learning and Social Network Analysis

The disjunction between SNA/network science on the one hand and sentiment analysis on the other sets the stage for the blend of methods that we combine in this book. Taking Brady’s cue, we concur that a structural

analysis of the relationships between users on social media, as shaped by the feedback loops governed by likes, shares, and other online interactions, proves to be the most accurate means to understand the deployment of emotional and rational language on these platforms. However, we do not have to re-invent the wheel to accomplish this. A robust methodology for examining the relationships and behaviors mediating the structure of digital discourse already exists – the SNA methods we have already described in this chapter, which have curiously been ignored by the sentiment analysis community.

Our methodology combines the strengths of SNA to understand complex systems with the precise analysis of the language and structure shaping online social network platforms. We are not, of course, the first scholars to propose this synthesis of SNA and social media content hiding in plain sight.²⁶ The present study, however, does implement this hybrid method in two novel ways:

- 1 Our extended analysis uses SNA to reveal the structure and meaning of emotional and rational appeals in language on social media platforms to infer their broader social and political ramifications. We accomplish this goal by analyzing the online reaction and debates responding to COVID-19 as the most disruptive and newsworthy event of the past decade, alongside networks reflecting contemporaneous controversies such as the US Presidential elections as points of reference. However, we situate these emotional and rational appeals in a much longer and more nuanced history of rhetoric and persuasion extending back to the classical era. In many ways, our argument asserts that the linguistic levers of emotion and reason have been well documented and explained in an unexpected body of work – the rhetorical manuals of Aristotle, Cicero, and Quintilian – which represents the canonical account of how language functioned for 2,000 years and which exerted a profound influence on the American founding fathers as they began to imagine how public discourse would take shape in the United States.
- 2 Our method combines the structural analysis of SNA with the linguistic analysis of emotion and reason, particularly by deploying unsupervised machine learning NLP techniques to identify language clusters signifying emotion and logic in the social media posts composing our network.

To assemble our dataset, we focused specifically on all tweets related to the COVID-19 pandemic and its associated controversies. We selected COVID-19 as our test case for rhetorical analysis because of its uniqueness as a truly multi-dimensional crisis that directly implicated every person in

the world in some way – we could identify no other global news event or debate that could match the sheer scope and reach of COVID. COVID-19 was also exemplary to test our rhetorical network method since it represents a truly multi-disciplinary moment in history, where science, politics, economics, race, education, globalization, and religion all collided in a crucible of fear and conflict as the virus spread around the world. Finally, we decided upon COVID-19 because of its indisputably polarizing nature, which made the topic an ideal testing ground for the clash of reason and emotion we are interested in examining.

As our data source, we used the COVID-19 Twitter dataset published by the University of Southern California, Information Sciences Institute, which contains a collection of tweet IDs related to COVID-19 from January 21, 2021, onwards.²⁷ We rehydrated the tweets from this list using twarc and uploaded the tweet content to an ElasticSearch database. The ElasticSearch server allows us to search and filter the COVID-19 dataset for all tweets analyzed in this book. The total COVID-19 dataset includes 141,010,038 tweets and 24,005,457 unique users for the time period of January 21 through August 21, 2020, which was the period we considered in the tumultuous first months of the pandemic. We filtered and extracted all tweets with the terms “vaccines,” “hydroxychloroquine,” “face mask,” “hand wash,” and their variants. From this subset, we created four network graph structures, along with a control network model of 1,000,000 randomized COVID-19 tweets as a representation of the general pandemic discourse, to measure the interactions between users, resulting in five network models for our analysis.

We used the igraph Python library to construct our network visualizations, where nodes represent unique users and edges connecting nodes represent interactions between users, as defined by retweets, replies, quotes, and likes. To filter out background noise, we removed all nodes with one and zero edges. We then identified all connected components in our graphs for analysis, resulting in 456,500 total unique users. We used an unsupervised machine learning method, doc2vec, to measure word usage similarity between users’ tweets and identify groups of users with shared language patterns. To identify the most influential users in the five networks, we calculated the degree centrality and betweenness centrality for every node and retained the top 500 nodes for each metric, respectively. We then used the fast-greedy modularity algorithm for community detection in the isolated network to group clusters of users into subcommunities within the overall network. We calculated the layout of nodes for the final visualization using the distributed recursive layout algorithm to determine relative node positioning in the network.

To cluster tweets by their linguistic content, we used doc2vec, an unsupervised machine learning technique that can identify how each word is used in a corpus in relation to surrounding words in the context of phrases, sentences, and documents. It accomplishes this task by transforming documents in a corpus into vectors that can be represented in a high-dimensional space, where the distance between vectors indicates semantic and syntactical similarity based on word usage in the documents. Doc2vec models use a shallow, dual-layer neural network architecture that inputs a corpus of texts and identifies each word's usage in relation to every other word in the document, therefore enabling a contextual understanding of word co-occurrence in all the documents composing a corpus. So, for example, doc2vec can identify all words that occur in the same document as “vaccine” or “COVID-19” to reveal words that share contextual and syntactic usage in the document as a proxy for semantic similarity. Doc2vec then uses these contextual word usage patterns to map each document as a vector in a high dimensional vector space, with more similar documents (as measured by the contextual proximity of words) positioned more closely in the vector space and less similar documents positioned further apart. For our models, we defined each user's aggregated tweets as a document vector to measure the similarity of word usage between users in the network models. For interpreting our models, nodes representing a user's tweets that occur closer together in the vector space share more similar language, and nodes more distant in the vector space share less language.

We evaluated several community detection algorithms to cluster our networks, including `edge_community_betweenness`, `random_walktrap`, `pagerank`, and `fastgreedy`. We selected `fastgreedy` based on our tests for its relative efficiency and consistency of the created clusters, which enabled comparison between networks.

Similarly, we compared multiple layout algorithms to structure the network space, including Fruchterman-Reingold force-directed, Kamada-Kawai force-directed, large graph layout, and distributed recursive layout. We selected the distributed recursive layout for its consistently interpretable graph structures across our five datasets.

We visualized our network graphs for presentation using `d3.js` and `Three.js`. We built an interactive browser-based interface capable of rendering the millions of nodes and edges in our models efficiently. Each point in a `Three.js` point cloud represents a single user, with the node radius measuring the number of tweets posted by the user, and with groups of users organized into clusters by our community detection method sorted by colors.

Additionally, we calculated two measures of each node's centrality in the network structure by using betweenness and degree centrality to focus our attention on the most central nodes contributing to the network structure. We identified and classified rhetorical strategies in the language of tweets by extracting the tweets of the top 50 most central users in each of our networks and examining the text for rhetorical patterns. We tested several automated approaches to classify different rhetorical moves based on language use patterns, but our results disappointingly lacked the level of nuance we sought.

Taken together, our methodology uses (1) NLP to group tweets and users based on the similarity of their common language usage through an unsupervised machine learning clustering approach, and then (2) uses SNA to create user communities connected by likes, retweets, and comments. This pairing of computational approaches allows us to create network models that contain several distinct layers of information: tweets grouped by similar language (measured as the spatial distance between nodes), users connected by network interactions (measured by edge presence and edge length between nodes), and the number of total tweets (measured by node radius).

The hybrid modeling method we employed produced networks with clear emergent patterns. In the figures below, each network representing a vibrant debate on Twitter exhibited different structures, reflecting the shifting alliances and ideological communities that coalesced around issues. Figure 3.2 illustrates the resulting network visualized in a graph structure.

We can observe in the visualization of the overall COVID-19 network model several general structural features that will guide our analysis. First, based on our methodology described previously, each node (or point) in the network represents a single user, and their corresponding node radius measures the number of tweets posted by the user (with more created content leading to a proportionately larger node). Second, the edges (or lines) connecting the nodes represent network interactions between users, such as likes, retweets, and replies. Third, nodes are grouped by word use similarity within tweets, so nodes positioned closer in the vector space share more similar language, and nodes spaced further apart in the vector space exhibit less similar language. Fourth, we used the fastgreedy community detection algorithm to cluster nodes by color to indicate their semantic proximity in the vector space.

With these four layers of information encoded within the network models, we can assess the patterns emerging within each as well as the structural differences between them. We can think about the clusters contained in our network models as types of issue-based communities coalescing

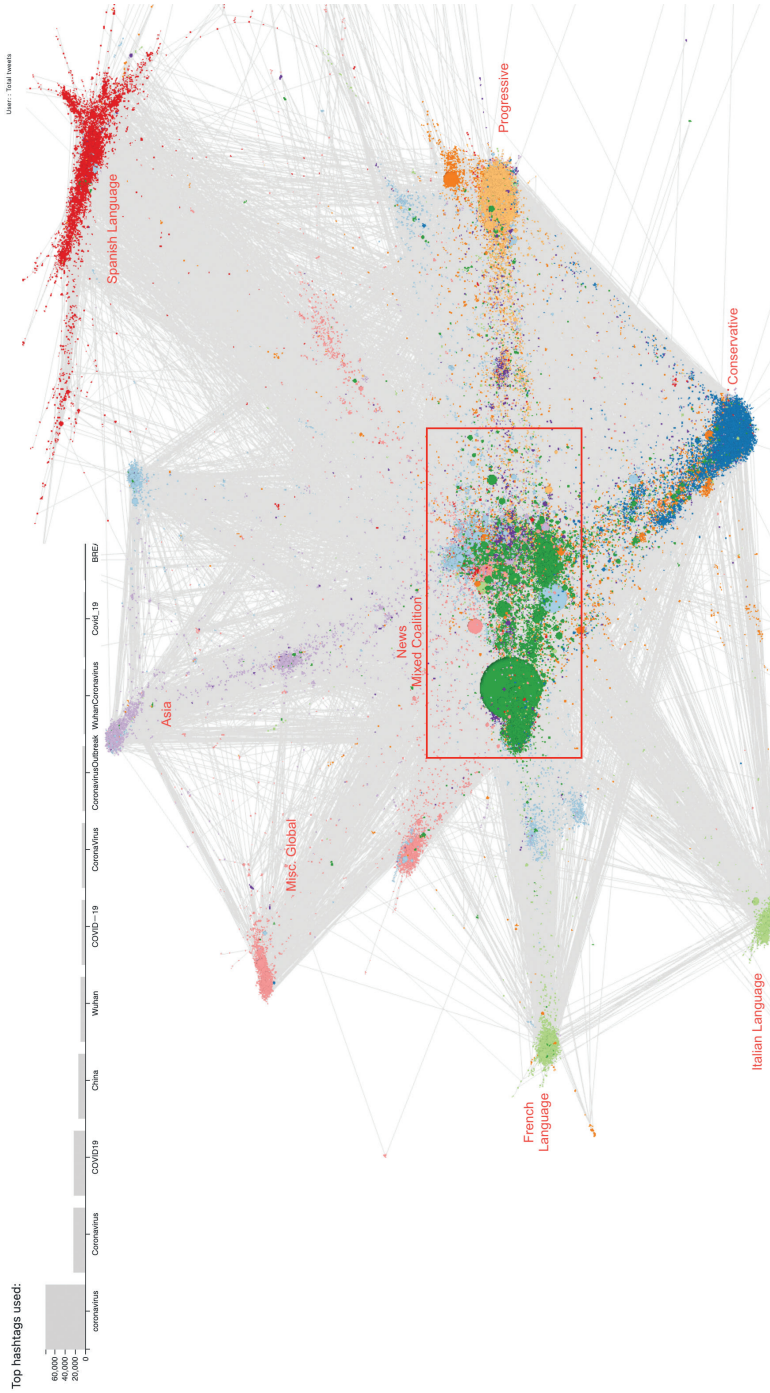


FIGURE 3.2 The overall COVID-19 network.

around a shared vocabulary within the content of posts, which are bound together by the rhetorical strategies mobilized by the users populating each cluster to manipulate the levers of reason and emotion to persuade and agitate the public audience. Our networks are notable in their representation of clusters that form around communities who share the same language and rhetorical techniques, and not around controversial topics and debates as we initially expected. Consequently, the network models do not show discrete clusters indicating true debates or sites of back-and-forth communication. For example, we anticipated in our initial study design that we would observe a vaccine debate cluster, a social distancing cluster, a Wuhan cluster, etc., all with users fighting for and against progressive or conservative ideological viewpoints.

We did not observe this structure of vibrant back-and-forth exchange forming around debates within clusters. Rather, the network subcommunities in our models coalesced around like-minded users who shared similar political and ideological commitments, and who consequently used the same language patterns and rhetorical techniques to support their collective shared beliefs and ideas in their clusters. This network structure perhaps speaks to the breakdown of our “post-truth” culture into factional “tribes” that share a common set of consensus assumptions and largely do not come into true contact with adversarial interlocutors or positions.

Our networks represent a large-scale, data-driven, unsupervised modeling method that both generally confirms and precisely represents the “echo chambers” that have defined the social media world. Each network cluster in our models thus depicts an individual echo chamber, or a linguistic and rhetorical silo, where users share the same language use patterns and deploy similar rhetorical techniques appealing to reason and emotion to communicate and disseminate their positions.

We should qualify that the “echo chambers” represented in the network subcommunities cannot be understood as being purely ideological in nature, and they do not exclusively demarcate politically defined tribes, such as progressive versus conservative or Democrat versus Republican, as has been conjectured.²⁸ The clusters of “echo chambers” reflect the unstable linguistic and rhetorical coalitions that coalesced in a topic-specific way in response to the manifold crises and points of conflict, which exploded as COVID-19 spread in 2020. These linguistic and rhetorical coalitions, however, were not fixed and shifted dynamically depending on the nature of the controversy at hand.

For example, in the handwashing network (Figure 3.3), we can observe a large mixed cluster at the center of the network, which mingles politicians from across the ideological spectrum, progressive users, and news

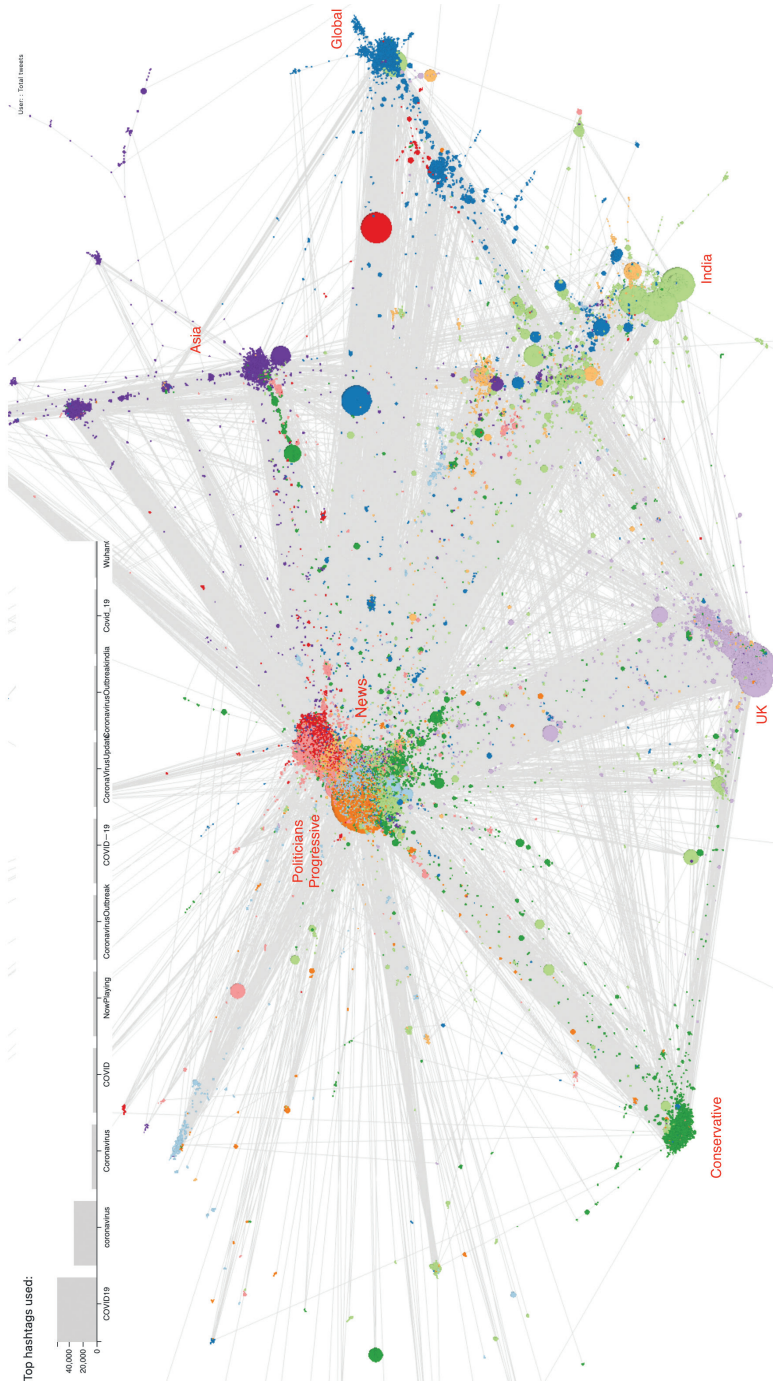


FIGURE 3.3 The “Handwash” network.

outlets that all use similar language to support handwashing as an easy preventive measure to slow the spread of COVID-19.

Radiating outwards from the central mixed cluster, we can see clearly demarcated peripheral clusters, such as conservative accounts (dark green cluster), a United Kingdom cluster (lavender cluster), an Indian subcontinent cluster (light green), a global account cluster (dark blue), and an Asian cluster (dark purple).

The handwashing network was our least controversial model in terms of content, with all of the clusters supporting handwashing, including the global clusters and the mixed central cluster composing a coalition of different communities converging in agreement about the value of handwashing. The dark green conservative cluster in the lower-left sector of the network were the only skeptical, or at least ornery, voices in this network.

From another angle, we can understand the dominance of the mixed coalition of users in the central cluster of the handwashing network through SNA metrics. Figure 3.4 displays edge counts for the top 50 accounts in the handwashing network to show the aggregate network connections among the most influential nodes in the model.

Eighty-eight percent of total edges in this top cohort (53,403 edges out of 60,682 total edges) are contained in the mixed coalition at the center of the network. Figure 3.5 which displays the distribution of the top user cohort sorted by their betweenness centrality, shows that 17 of the top 20 (85%) most central nodes in the handwashing network, and 31 out of the top 50 (62%), are located in the mixed central cluster respectively.

Note that the SNA measures we calculated for this and our other networks, including edges and betweenness centrality, exhibit a power law behavior, where the majority of edges and centrality emerge from a handful of top nodes, and with a long trailing tail of nodes displaying a precipitous drop in edges and centrality measurements. This power law behavior partially accounts for our rationale to measure the top 50 nodes in each network. The long tail of nodes with decreasing value accounted for most nodes that account for a vanishingly small percentage of the total network edges and centrality.

The network behavior shaping the structure of the handwashing model displays an underlying trend that we observed in most of our models: a central mixed cluster that brought several linguistic communities into an issue-based coalition, and with several distinct peripheral clusters that represent more isolated linguistic echo chambers or silos. The overall COVID-19 network (Figure 3.6) serves as a good example of this mixed central coalition in our networks that blurred the boundaries between seemingly distinct and at times polarized groups in the public space of Twitter.

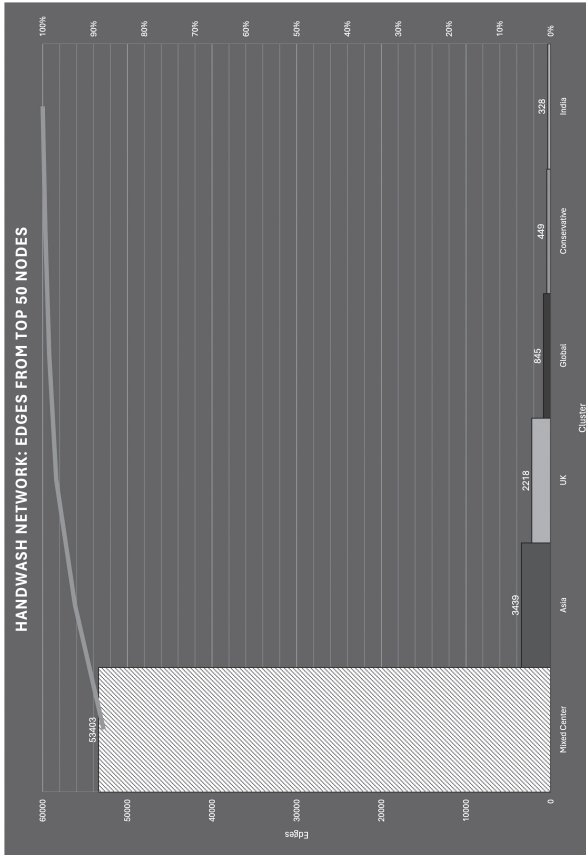


FIGURE 3.4 Handwash network: Edge counts.

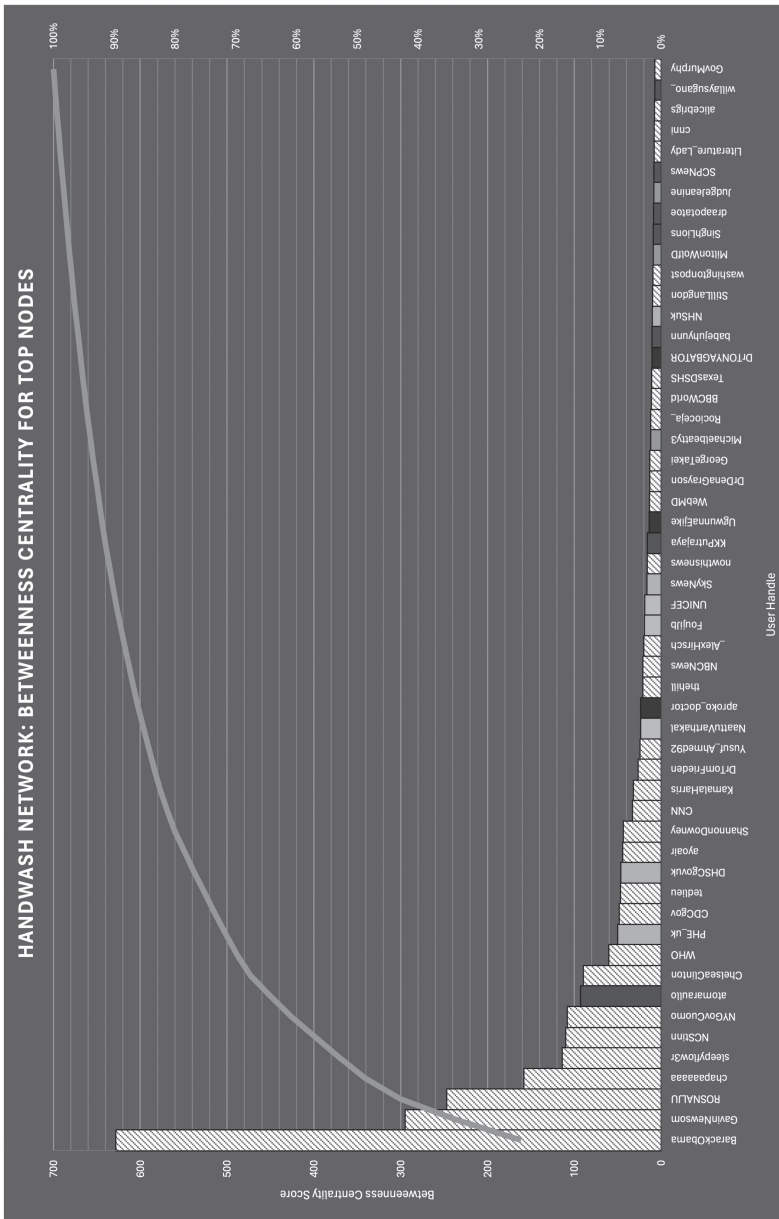


FIGURE 3.5 Handwash network: Betweenness centrality.

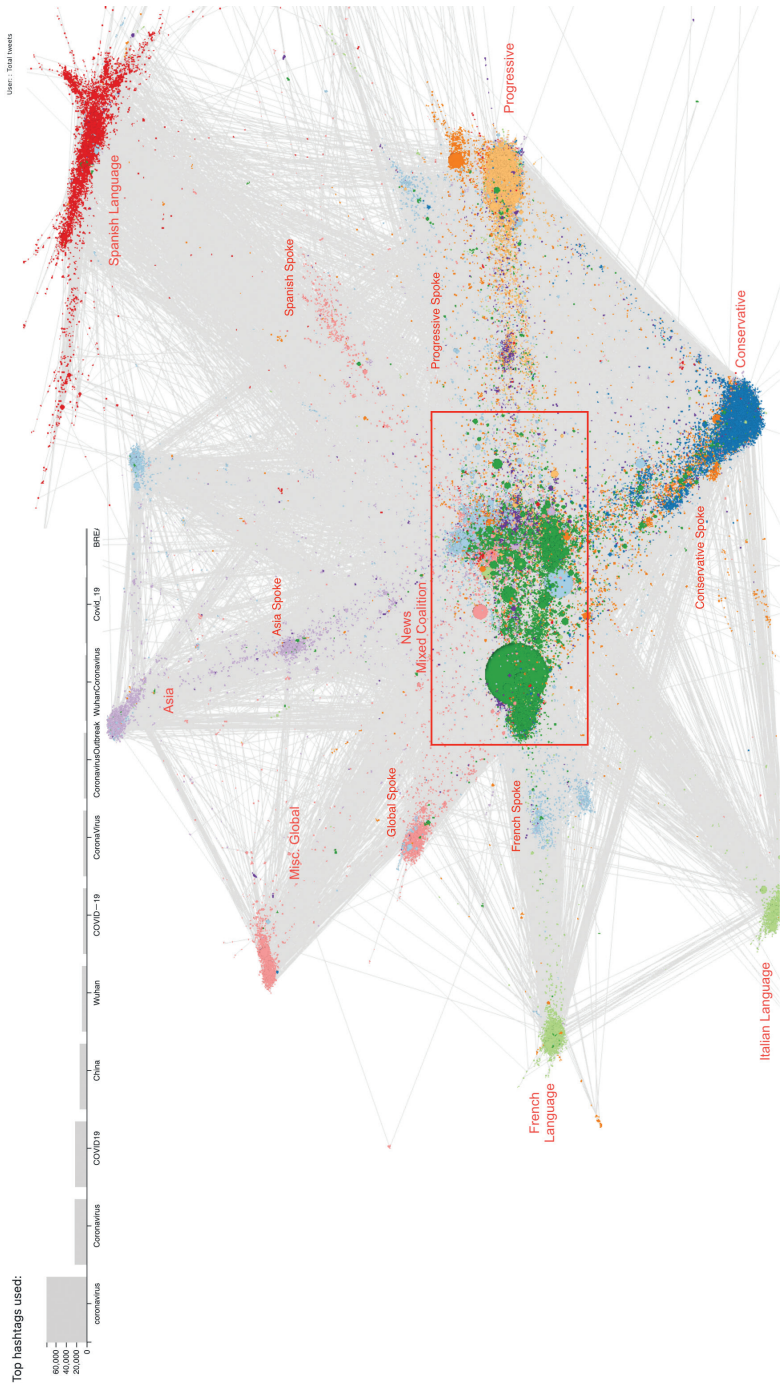


FIGURE 3.6 COVID-19 network: Hub and spoke structure.

In this network, we observed distinct clusters organized by languages and by geography, with clearly grouped Spanish, French, and Italian language clusters, and with Asian and miscellaneous global tweets organized by geography. Similarly, we can see the familiar separation of political camps at the opposite ends of the ideological spectrum, with progressive and conservative clusters positioned apart, and with few intervening edges connecting their viewpoints. Dominating the network, however, in the central position lies the mixed cluster that eludes any narrow ideological, political, linguistic, or geographical definition, accounting for 54% (20,332 of 37,441) of the total edges among the top cohort of nodes and 60% (30 among 50) of the most central nodes (Figures 3.7 and 3.8).

The central cluster should not be understood as homogeneous, but rather combines elements of generic vaccine facts and updates, discussions of China and speculations of the origin of COVID-19, and elements of progressive and conservative users that shared a positive view on vaccines to move beyond the pandemic. The central cluster also bridges different sectors of the network, with a diffuse spectrum of users as spokes connecting the mixed coalition as the hub of the network to the peripheral clusters that display more homogeneous language use.

Surprisingly, we noted that news-related accounts were heavily represented in this central cluster, accounting for 41% (8,348 of 20,322) of the edges connecting nodes in the central mixed cluster alone and 22% (8,348 of 37,441) of the total connections in the network's top cohort of users. Based on the news's central position in the vector space and its disproportionate representation in the connections linking the edges in both the mixed cluster and the overall network, we surmised that the news functioned as a connective tissue at the heart of the COVID-19 discourse, bridging the ideological, multilingual, and geographical islands that compose the remainder of the network.

We found a mixture of clusters coalescing in a central hub in our other networks. For example, the facemask network (Figure 3.9) exhibited a mixed central cluster of news accounts, politicians from across the political spectrum who encouraged the use of facemasks, and scientists, serving as the network's hub, with spokes extending to distributed geographical (United Kingdom, Australia, Africa, and miscellaneous global) and partisan clusters (United States and United Kingdom anti-masking and global pro-masking contingents).

Notably, the tensions surrounding the face-masking debate produced a unique "rage" cluster, which did not appear in any other network as a standalone feature and which contained highly charged emotional language related to masking, which we will consider in more depth in the following chapter. In terms of network cohesion, the mixed central cluster

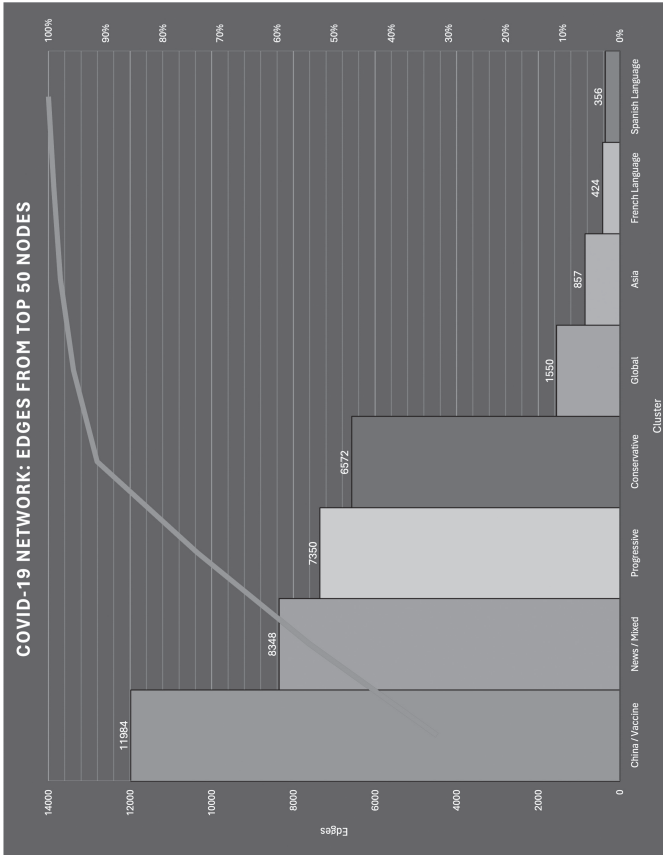


FIGURE 3.7 COVID-19 network: Edge counts.

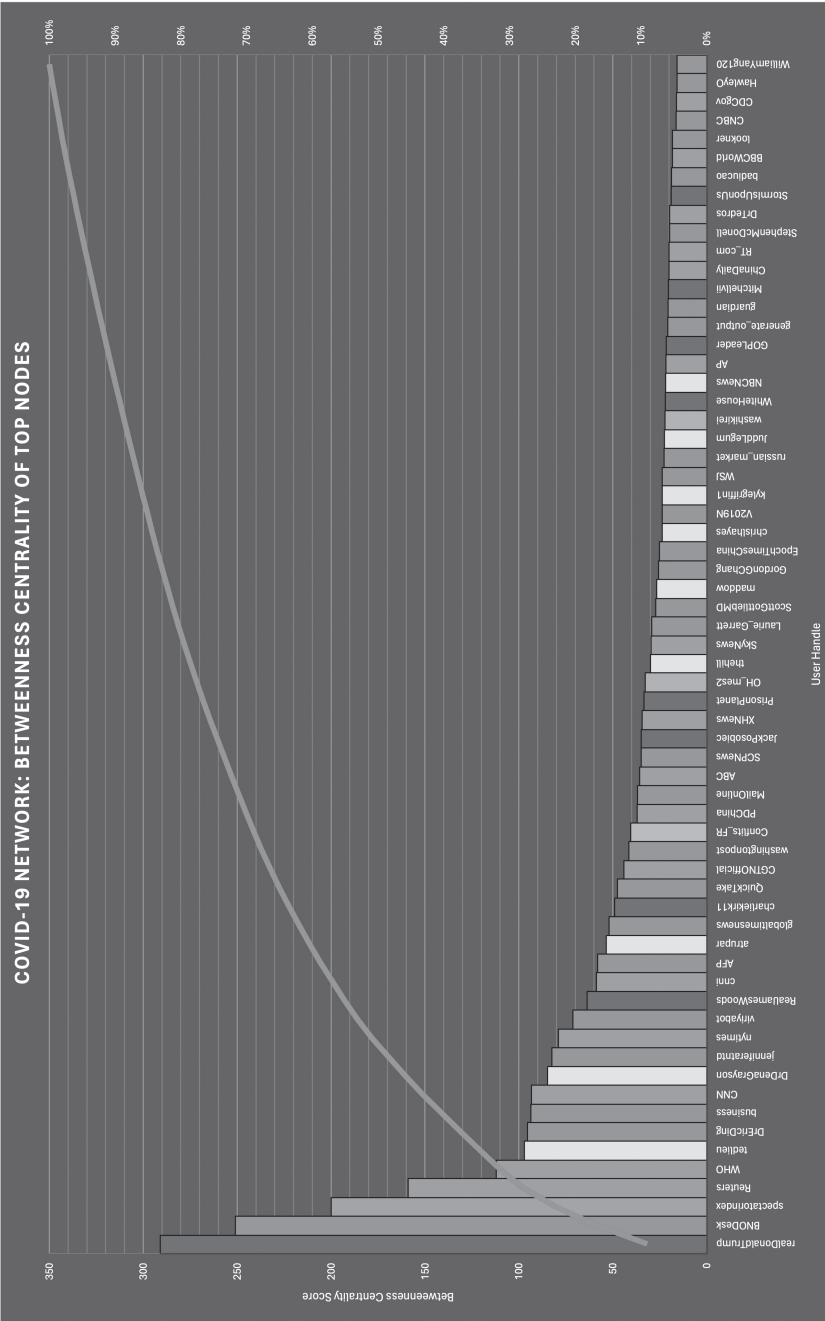


FIGURE 3.8 COVID-19 network: Betweenness centrality.

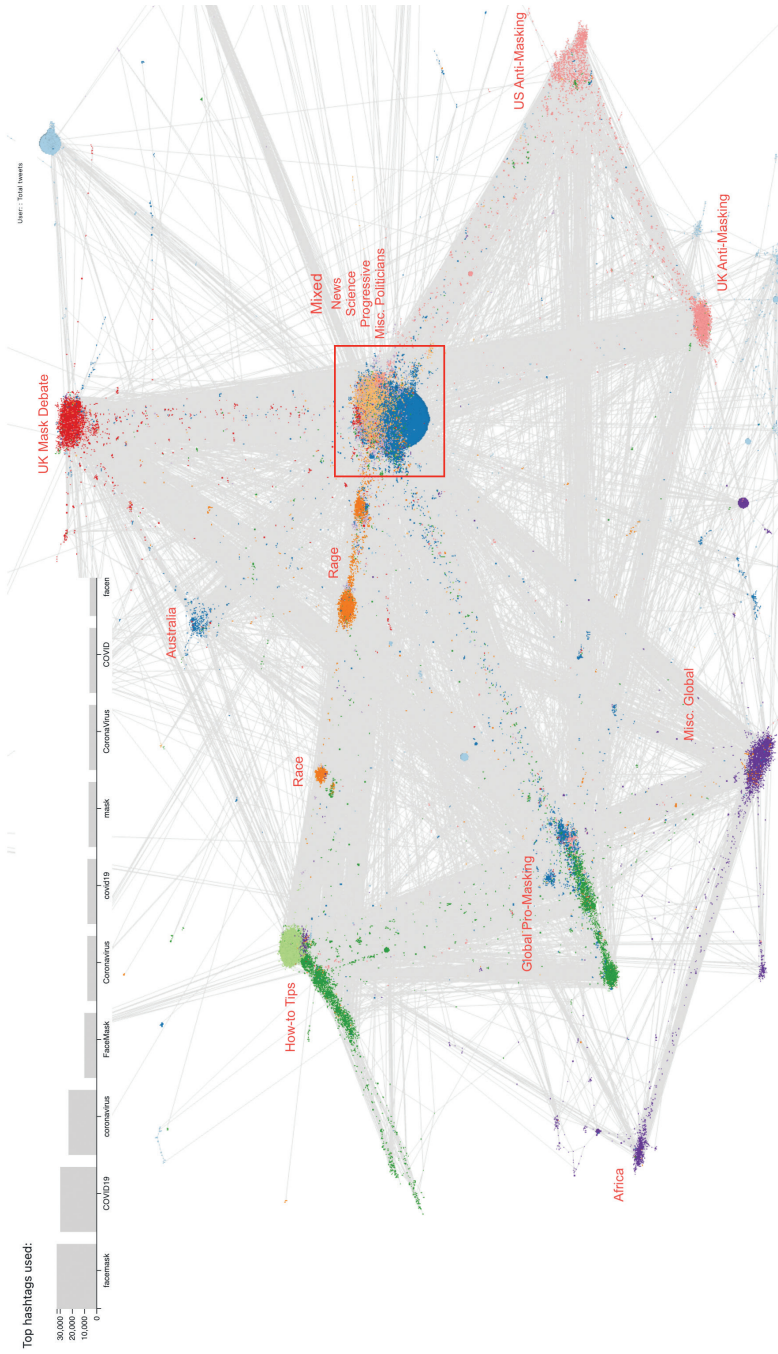


FIGURE 3.9 The “Facemask” network.

contained 56% (21,021 of 37,396) of the total edges from the top 50 accounts in the facemask network and accounted for 42% (21 of 50) of the top users overall measured by centrality (Figures 3.10 and 3.11).

The two wrinkles to the mixed hub and peripheral cluster spoke model we have described occurred, perhaps unsurprisingly, in the networks representing the two most controversial topics we considered, hydroxychloroquine (HCQ) and the COVID-19 vaccine.

The HCQ model (Figure 3.12) possesses two distinct clusters spanning a horizontal axis, with a mixture of progressive, news, and scientific accounts positioned on the left of the network, and with a competing mixture of various pro-HCQ accounts, with distinct clusters formed around as French language tweets responding to Didier Raoult's initial French study bringing HCQ to the popular imagination as a potential treatment for COVID-19 and the Indian subcontinent. In many ways, the HCQ network exhibits the most obvious political polarization, as we commonly think of it, with the political left-wing and anti-HCQ factions versus the political right-wing and pro-HCQ factions distributed on opposite ends of a linear axis spanning the network horizontally.

The pro-HCQ cluster was one of the most surprising mixtures we found in terms of its startling heterogeneity and could not simply be identified with the political right. Rather, this HCQ-positive grouping mingled strange bedfellows, including conservatives, libertarians, mystical thinkers, and holistic health proponents skeptical of mainstream medicine who often held progressive attitudes. This heterogeneous pro-HCQ mixture of clusters, however, dominated the network's structure, with 75% (20,029 of 26,567) total edges from the top cohort of nodes and accounting for 64% (32 of 50) of the top 50 nodes in the overall network (Figures 3.13 and 3.14).

Between the poles of pro and contra HCQ, a debate ranges in the form of a graduated spectrum of positions stretching from more HCQ-negative on the left side of the network to more HCQ-positive on the right side of the network. Scientific posts lie adjacent to, but not overlapping with, the HCQ-negative cluster. Both the HCQ-negative cluster that leans progressive in terms of political affiliations and the adjacent scientific cluster share a common opposition to HCQ in general but differ substantially in the vocabularies and the differing ratios of reason and emotion in how they formulate their critique of HCQ, respectively. The anti-HCQ mixed cluster accounted for 23% (6,181 of 26,567) of the total edges in the top cohort of nodes and represented 28% (14 of 50) of the top accounts in the network as a whole. Much smaller French language and Indian clusters connect to both HCQ-negative and HCQ-positive subcommunities in the network, due to the original study flagging HCQ as a candidate treatment for COVID-19 originating in France, leading to a furor of speculation and

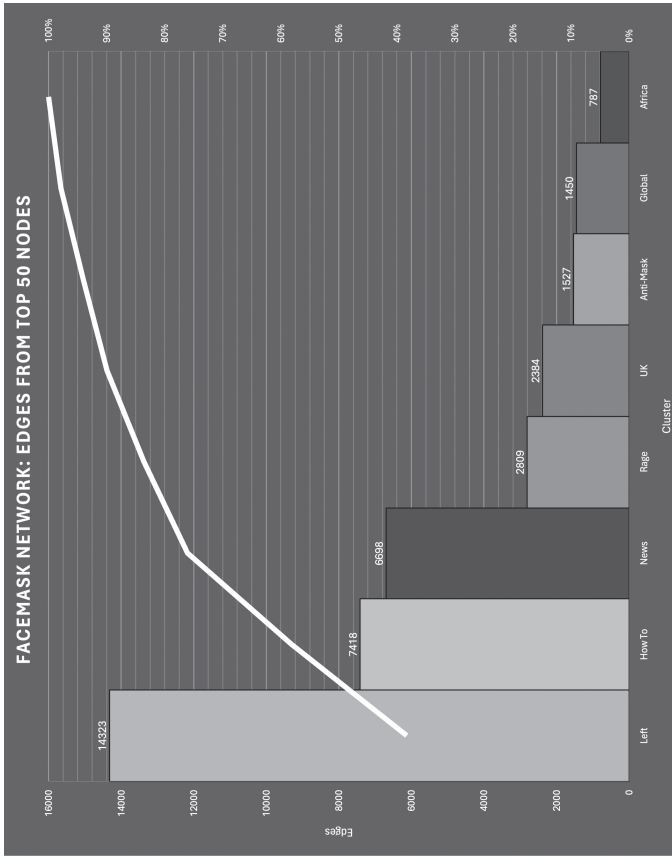


FIGURE 3.10 Facemask network: Edge counts.

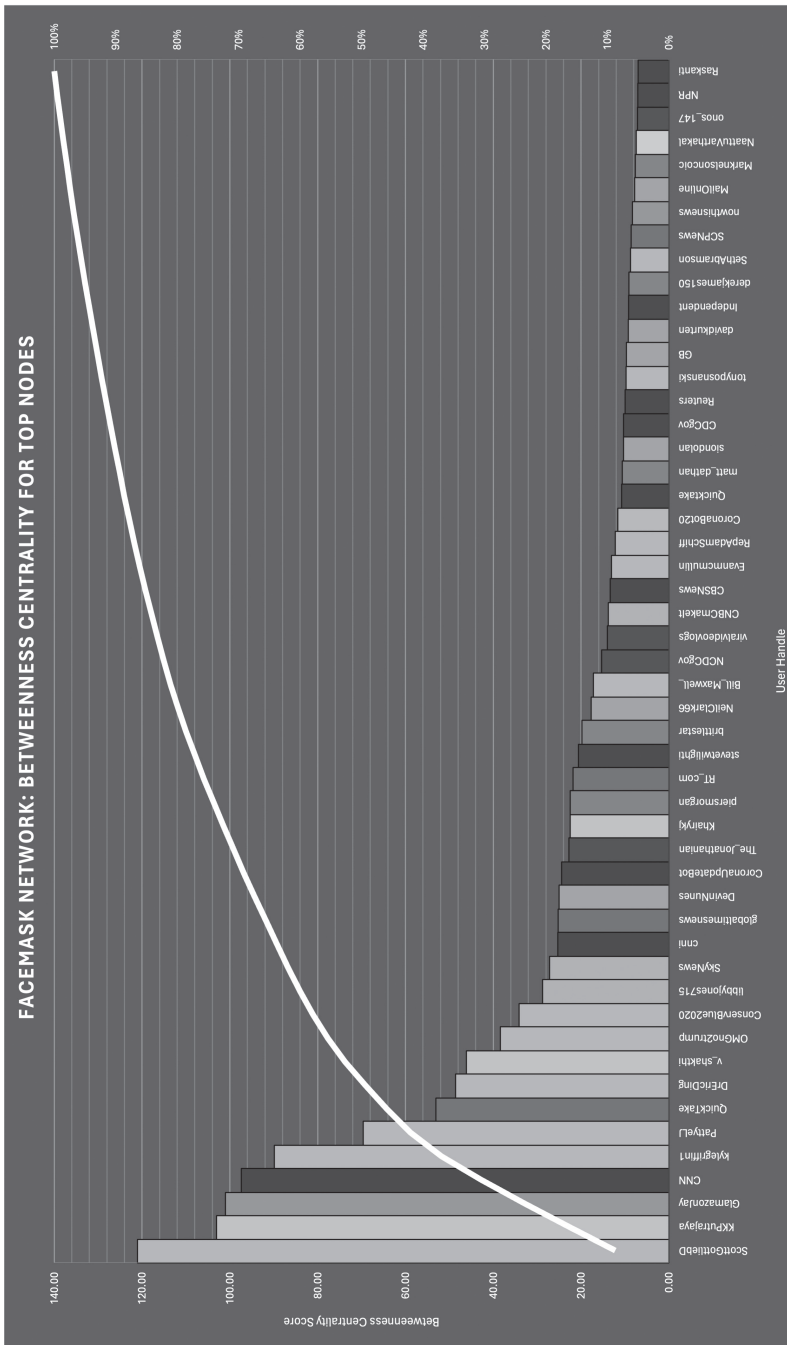


FIGURE 3.11 Facemask network: Betweenness centrality.

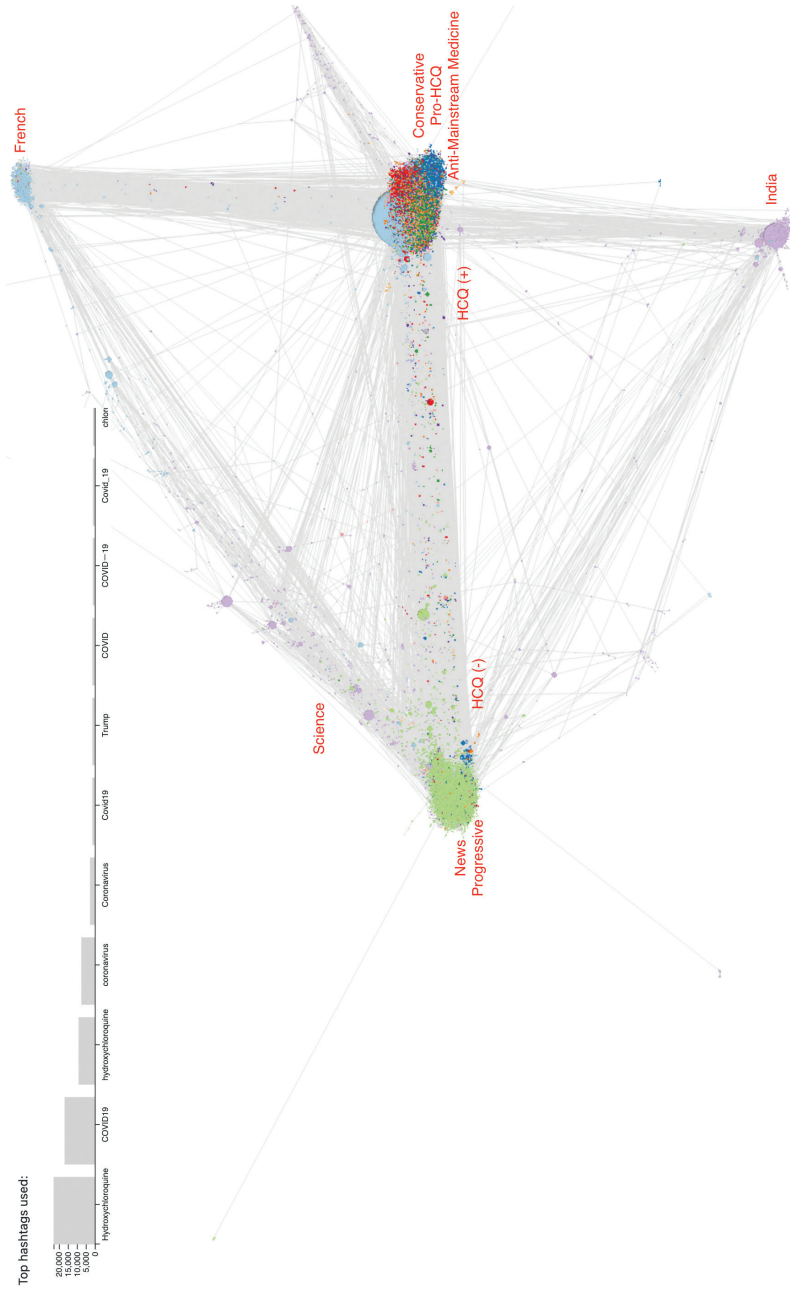


FIGURE 3.12 The hydroxychloroquine (HCQ) network.

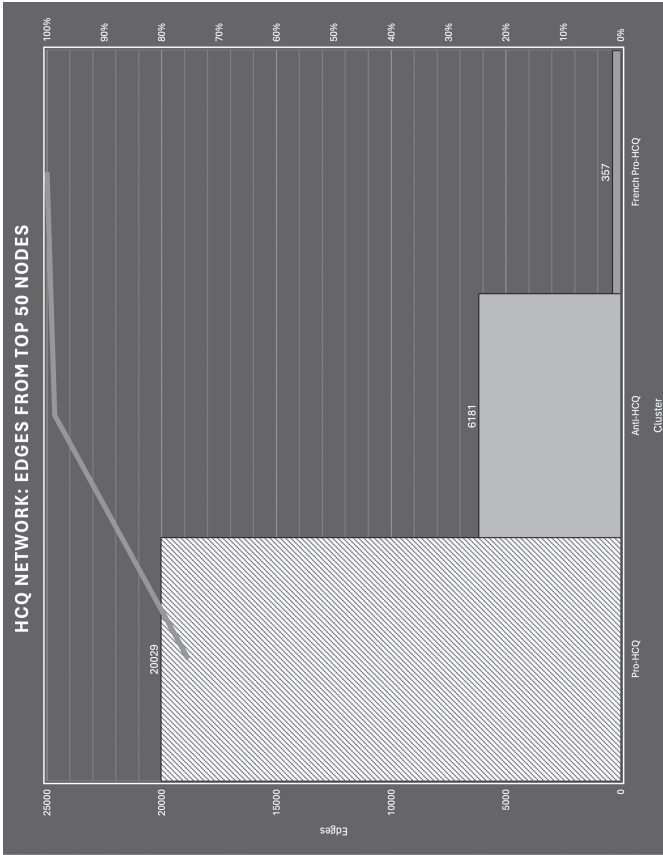


FIGURE 3.13 HCQ network: Edge counts.

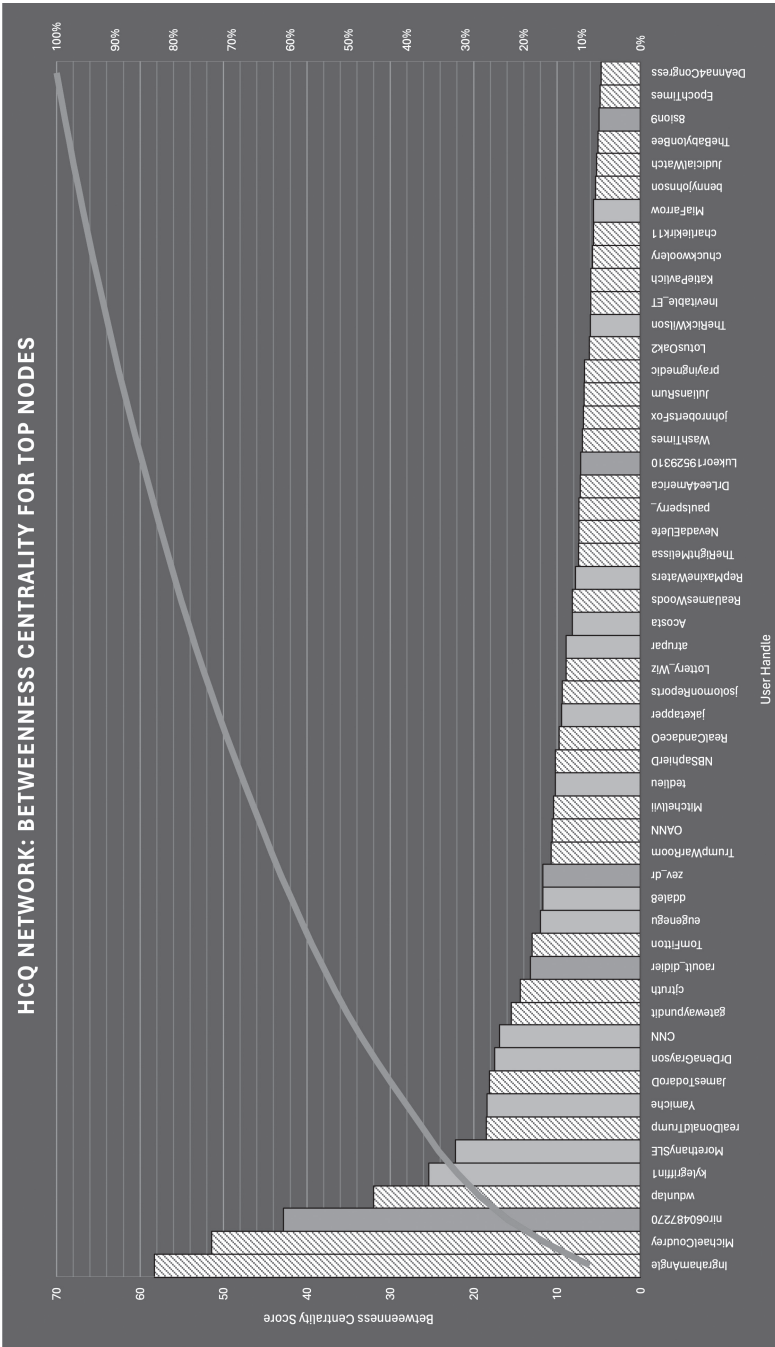


FIGURE 3.14 HCQ network: Betweenness centrality.

response in the Francophone world and corresponding to India's widespread adoption of HCQ.²⁹

The complexity of the network structure increases substantially in the vaccine model, with more linguistic and rhetorical clusters reflecting the many viewpoints associated with vaccines (Figure 3.15).

Among all of our networks, the vaccine network exhibits the least mixture of clusters, and correspondingly the most fragmentation and polarization of different camps representing different positions in the fierce conflict over the safety and efficacy of the COVID-19 vaccine. Here we observe the left-leaning and right-leaning political camps represented as two distinct clusters, but which unexpectedly occupy the margins of the network. By contrast, the science and finance clusters lie at the center of network, with the news cluster serving as a structural bridge between the political left cluster and the science/finance central clusters. The political-right cluster, by contrast, lies adjacent to a conspiracy theory cluster as opposed to science. The remainder of the vaccine network is composed of a scattered array of geographically specific clusters, such as India, Asia, and Africa.

Out of the discretely clustered and fragmented structure of the vaccine network reflecting a lack of coalitions of multiple online communities, the only mixture to speak of lies in the news nodes, which contain several diffuse but distinct clusters identified by an intermingling of colors in the network bridge spanning the progressive cluster and the central business, finance, science, and global clusters. However, the bridging function of the news cluster in the vaccine network differs from the role of the news in previous networks. In the COVID-19 network (Figure 3.7), the news cluster bound together the central hub of the network that represented a coalition of different communities that shared similar language. By contrast, in the vaccine network, the news bridges the progressive cluster with the central science, business, and global clusters, but these do not coalesce into a mixture central hub that dominates the network with a shared language – the language use in the vaccine network remains quite distinct between clusters and the news bridges these clusters otherwise separated in the network space.

Reflecting the lack of a single hub at the center of the network blending multiple clusters, we find that the relatively distinct news (34%, or 58,933 of 171,278), conservative (33.9%, or 58,081 of 171,278), and progressive (30%, or 51,441 of 171,278) clusters share about an equal proportion of approximately one-third of the total edges among the top cohort of nodes in the network (Figure 3.16). The same picture emerges when considering the top accounts in the network: news represents 36%, the conservative cluster represents 32%, and the progressive cluster represents 28% of the top 50 users in the network overall (Figure 3.17).

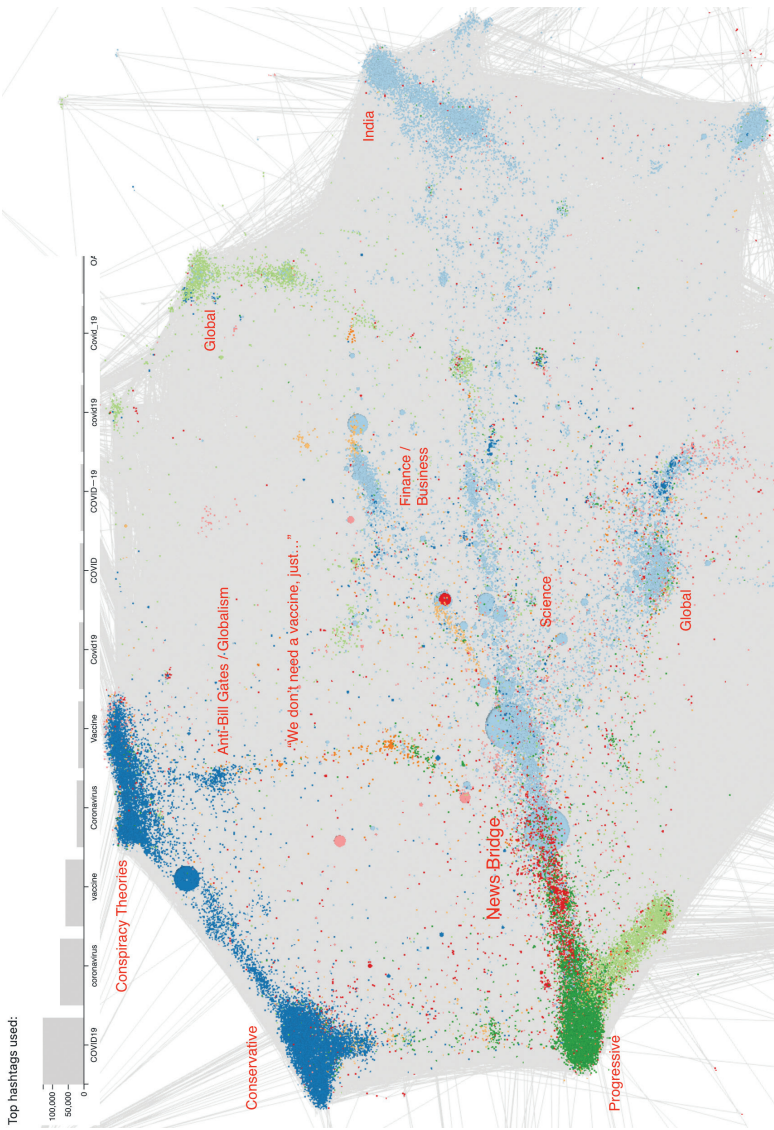


FIGURE 3.15 The “Vaccine” network.

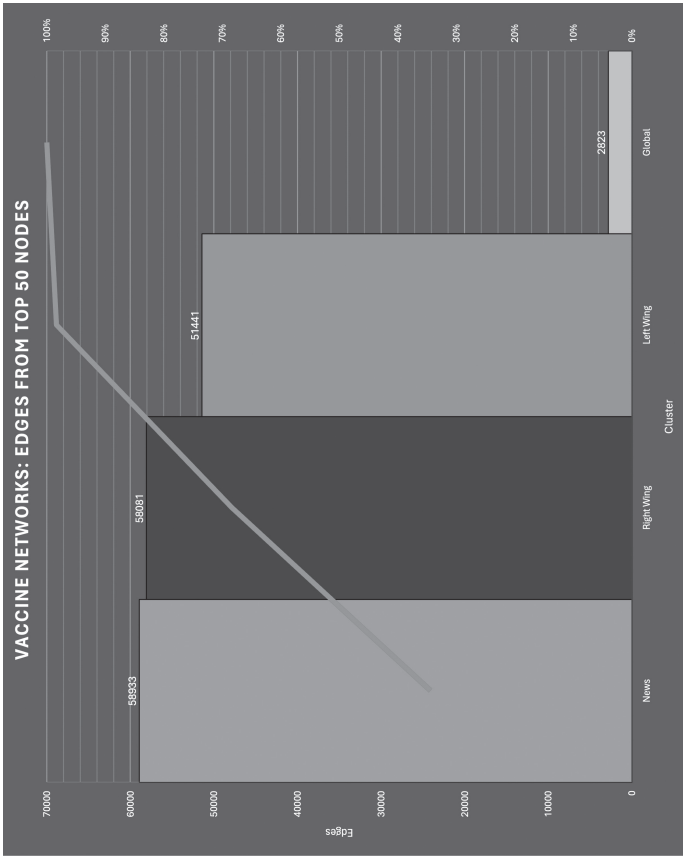


FIGURE 3.16 Vaccine network: Edge counts.

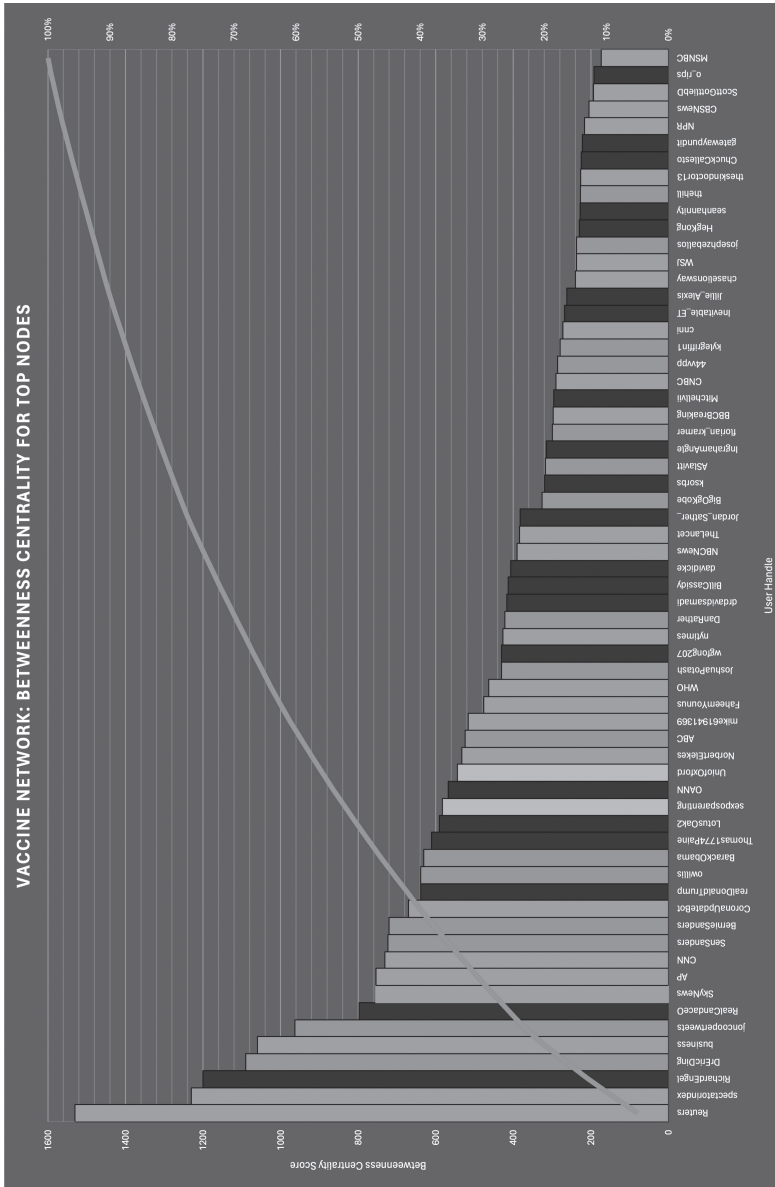


FIGURE 3.17 Vaccine network: Betweenness centrality.

We can observe in the comparison between the HCQ versus vaccine networks models the echo chambers forming around subcommunities that cannot simply be identified as fixed, polarized politically conservative versus progressive camps dominating a fractured social landscape, which move predictably in lockstep from issue to issue. Rather, depending on the topic or controversy under debate, the composition of the network clusters changed, with subcommunities converging or dispersing into distinct, issue-by-issue coalitions.

These shifting coalitions in the network demonstrate, in a contemporary, networked structure defined by 141 million datapoints, the fundamental insights of Aristotle, Cicero, and later Thomas Jefferson that language serves as a connective tissue binding communities together with rhetorical appeals that gather groups of people together to act and to think in a unified direction. The sheer volume and rapid pace of the social media world, however, have at once accelerated and destabilized the groups bound together by a common language and rhetorically induced consensus, as they shift and evolve from topic to topic, controversy to controversy, in the first months of the COVID-19 pandemic.

One of our major observations based on this unstable network structure challenged our initial assumptions. We found that no single cluster reflecting a position or political leaning monopolized the use of rational and emotional appeals. We initially conjectured that each category of rhetorical language would be more extensively associated with a particular group or tribe, such as the political left exhibiting more rational rhetoric, or with the political right demonstrating more emotional appeals. This was not the case. Rather, the proportion of rational and emotional rhetorical strategies was equally unstable and fluid by issue, with the ratio of each changing depending on the topic at hand.

The underlying logic for the deployment of certain rhetorical strategies that became apparent was governed by who was arguing for or against an idea. Posts supporting a claim more heavily employed reasoned logic, data, and the multiple forms of evidence we consider in this chapter to provide layers of substance to their arguments. However, the anti- or antagonistic position mixed these evidentiary or logical rational appeals with emotional rhetoric in the form of ridicule, humor, induced or cited outrage, among other forms we analyze in this chapter. In general, the anti-position enjoyed the advantage of employing the dual levers of reason and emotion to suit their arguments. The factions or individuals on the anti-side, however, were not fixed and indeed evolved continuously depending on the debate.

Across the analyses in this book, we combine NLP and fine-grained rhetorical analysis to add new dimensions of meaning to SNA. In our hybrid

approach, we used two principles to structure the network structures we present in our study. We accomplished this integration of NLP with SNA by grouping social media platform users and their posts by similar language use patterns – that is, if users write similar language in their posts, they will be grouped closer together in the network structure. At a technical level, we defined nodes in our networks, and inter-node distance, through linguistic similarity measures to gauge shared emotional and rational language use patterns between groups of users to define clusters and communities of users that use similar words and phrases in their posts. As a second layer to our method, we used behavioral features in the “digital platform design” described by Brady, such as followers, likes, shares, and other forms of engagement defining social media feedback loops to organize the structure of our networks – that is, if users interact with others through the engagement feedback loops, we assign an edge or a line of connection signifying a relationship between the two users. To construct the networks, we defined edges in our networks by measuring the behavioral feedback loops of engagement between users, independent of the language they use, to connect users and user communities in the network. This hybrid approach combining NLP and SNA gives us a dual field of vision to unpack the layers of meaning defining the behavior of emotional and rational language as they shape social media debates. In the following chapter, we will demonstrate how this blending of NLP and SNA sets the stage for the third element of our method: detailed rhetorical analysis of the social media discourse.

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4

RHETORIC, REASON, AND EMOTION IN A NETWORK SPACE

We have begun to understand the complex and shifting clusters of linguistic and rhetorical subcommunities in our networks that we analyzed in Chapter 3. The overall contours of these networks set the stage for our rhetorical analysis of the content shaping these networks, and in turn allow us to bring more sharply into focus our methodological distinctions with mainstream approaches to analyzing social media content, including sentiment analysis. We did not settle on a fixed vocabulary of positive or negative sentiment, nor did we predetermine a rational versus emotional vocabulary list to organize the content of our networks. In the end, we developed a hybrid method combining computational and human approaches. Chapter 3 described the two technical methods, natural language processing (NLP) and social network analysis, used to generate our network models.

To understand the language usage in the content of the tweets composing our network models, we used machine learning-based unsupervised clustering of all of the language within the network's posts and social network analysis to create relationships between users, as defined by interactions, to identify the natural distribution and grouping of language and network-based interactions divided by each sub-corpus of tweets (vaccines, HCQ, face masks, hand washing, and the overall COVID-19 network). To identify emotional or rational usage in the network content, we extracted the top 50 central users (as measured by betweenness centrality) and employed an ethnographic method modeled on actor-network theory (ANT), as it has been implemented in the analysis of complex systems among scholars in science and technology studies.¹ This method of thick

description, which Venturini has called “controversy mapping,” aims to unpack the layers of subtle linguistic content and the corresponding rhetorical strategies used by the most central influencers in each network, who shape the terms of the debates raging at the time of the COVID-19 pandemic.²

We analyzed the top 50 users’ tweets for our models and categorized their content by the rhetorical strategies we observed. Our linguistic analysis method shares many homologies with the ethnographic method of “thick description” that has been adopted by practitioners of ANT to study the structure and communication flows in complex network systems and organizations. Bruno Latour, the most prominent practitioner of ANT, who we have considered in the history of network analysis above, offers an idiosyncratic definition of a “network” that fundamentally describes a method of textual analysis.

(A network) is nothing more than an indicator of the quality of a text about the topics at hand.... A good text elicits networks of actors when it allows the writer to trace a set of relations defined as so many translations.³

So, network is an expression to check how much energy, movement, and specificity our own reports are able to capture. Network is a concept, not a thing out there. It is a tool to help describe something, not what is being described. It has the same relationship with the topic at hand as a perspective grid to a traditional single point perspective painting.... In the same way, a network is not what is represented in the text, but what readies the text to take the relay of actors as mediators.

Latour’s network leans heavily on his understanding of how textual content can allow us to “trace a set of relations” and how it can function as a “tool” enabling us to “capture” the “energy, movement, and specificity” circulating within a system. The method he proposes is fundamentally a flatly descriptive method of textual analysis.

Just describe the state of affairs at hand ... To describe, to be attentive to the concrete state of affairs, to find the uniquely adequate account of a given situation, I myself have always found this incredibly demanding.⁴

By combining NLP, social network analysis, and an ethnographic rhetorical analysis inspired by the descriptive textual approach espoused by Latour, we developed a hybrid methodological strategy that gave us access to two levels of scale: 141 million tweets related to the explosion of

the COVID-19 pandemic and the initial chaotic debate about the public health crisis and its effect on society from January 21, 2020, to May 2020 analyzed and visualized in network form, paired with a more nuanced fine-grained micro-linguistic analysis to define the rhetorical moves made in the most influential tweets as measured by centrality.⁵

The dueling forces of emotion and reason in our models, therefore, cannot be neatly encapsulated in a single preset vocabulary. Rather, our method defines emotion and reason as emergent properties of the language of the tweets composing our network graphs, as structural features of the network distribution of how language is used by different individuals and communities.⁶ The dynamic and unstable nature of the patterns we identified in the use of reason and emotion as shaped by the network structure in the digital public domain reflects the insights of historical scholars of rhetoric who have long recognized that the power of rhetorical appeals to persuade lies in their malleability and their chameleon-like ability to be adapted and molded to any given line of argument. For example, Victoria Kahn has influentially demonstrated the fundamental insight that rhetoric in itself cannot be understood to be intrinsically positive or negative, useful or useless, good or evil, or true or false, as a fixed binary classification built into language as an inherent feature of its meaning-making capacity.⁷ Rather, Kahn has argued that rhetoric was understood after Machiavelli's influence in the Italian Renaissance as an empty vessel to transmit language in the social domain, which can be employed badly or well, to put it in Machiavelli's terms, but not for inherently good or evil ends as Aristotle had initially hoped.

Fitting the theme of Machiavellian rhetoric, we found that major political figures such as Donald Trump and Barack Obama used the affordances of rhetoric as a mode of political address through Twitter as a podium to appeal to broad social themes such as the economy, community, and the need for unity in times of crisis, as a rhetorical strategy to bind the public together. We paid close attention to presidential rhetoric in particular since, as Mary Stuckey has suggested, "as both agents and nodes, when presidents engage in educative, vituperative, and performative rhetoric, they are positioned to influence the form and content of the national discourse."⁸

An apt example of this presidential rhetoric occurred on July 20, 2020, when Donald Trump invoked social unity by highlighting the use of face-masks to collectively defeat COVID represented as an insidious racialized invader.

We are United in our effort to defeat the Invisible China Virus, and many people say that it is Patriotic to wear a face mask when can't

socially distance. There is nobody more Patriotic than me, your favorite President! (7/20/2020)

Surprisingly, when considering presidential rhetoric on the opposite end of the political spectrum, we observe Barack Obama on March 4, 2020, communicating a similar message.

Protect yourself and your community from coronavirus with common sense precautions: wash your hands, stay home when sick and listen to the CDC & local health authorities. Save the masks for health care workers. Lets stay calm, listen to the experts, & follow the science.

And he follows with a similar call for political and social unity on July 4, 2020.

This holiday weekend, let's be safe and smart. It's going to take all of us to beat this virus. So wear a mask. Wash your hands. And listen to the experts, not the folks trying to divide us. That's the only way we'll do this—together.

Obama links individual action – “protect yourself” – to the greater collective good – “your community” – by emphasizing a shared “common sense” grounding all of us in reason. He lists a series of actions to guide individuals in a community-based public unity. On July 3, 2020, Obama renews his call for social unity after observing increasing divisions forming in the COVID-19 debate, by reiterating that “it's going to take all of us” together to combat “the folks trying to divide us.”

In both cases, presidential rhetoric aims to persuade and inspire action by drawing attention to a shared public sense of social unity. Both presidents deftly make their point at two scales – the macro-political scale evinced by “community,” “all of us,” “we are united,” and the consensus of “many people” who support face masks, combined with the micro-scale of the person – each individual “protecting yourself” in the case of Obama and the vainglorious “me, your favorite President” in the case of Trump.

Both political leaders play with emotion in the tight space of a tweet, with Trump figuring masking as part of an aggressive “defeat” of a racially tinged and insidious “Invisible China Virus,” fanning the flames of fear and paranoia about China as the source to blame for the pandemic. Obama, by contrast, urges the public to quiet their emotions – “stay calm” – and to lean instead on reason and to be “smart” by following

the logic of “science.” In the vaccine model, another pointed example includes Senator Bill Cassidy’s reassurances that “we will get through this together,” and with the stakes of success centered on how to “fully reopen the economy.”

February 27, 2020: As a doctor who ran vaccine programs to decrease the spread of disease, @realDonaldTrump is doing what’s necessary to protect Americans from the #coronavirus. Democrats’ attacks are unfounded and aimed at stoking fear for political gain.

March 6, 2020: We are making sure that Louisiana and the country are prepared for the coronavirus. Vaccine and treatment development is underway. We are working on the groundwork to ensure it is available for all Louisianians.

July 8, 2020: We cannot wait for a vaccine to fully reopen our economy. We all have a part to play in stopping the spread of COVID-19 by wearing masks, washing our hands and sneezing into our sleeves. We will get through this together.

Cassidy mingles reason and emotion as a strategy here to blame Democrats as undermining social and economic unity through “unfounded” attacks that lack evidence on the one hand and that he asserts are “aimed at stoking fear for political gain.”

In our models, these observed strategies of appealing to a unified social fabric, combining individual decision-making and collective consensus, and both emotion and reason, played out repeatedly in the messages from politicians and public figures from across the political spectrum and across the globe.

The Language of Reason and Logical Proof

We observed the most central users across our models deploying the language of reason and evidentiary proof to persuade the public of the validity of their claims. Ironically, we found that the most literal use of rational language attempted to support largely irrational or unfounded ideas. This strategy to counteract a lack of scientific evidence occurred most frequently in the debate about the efficacy of hydroxychloroquine (HCQ) as a cheap, widely available “cure” for COVID-19 that gained widespread attention among anti-vaccine communities.⁹

For example, the far-right news organization One America News Network (OANN) shifts its language of certainty from March to May 2020, stating in the early phases of the pandemic that HCQ is “recommended”

and “promising” in the “fight against coronavirus,” with “claims to have been cured” offered as tentative anecdotes vouching for the drug.

March 31, 2020: Doctors, patients recommend hydroxychloroquine as promising drug in fight against coronavirus.

March 24, 2020: Fla. man claims to have been cured of coronavirus after receiving hydroxychloroquine treatment.

April 2, 2020: Hydroxychloroquine proving an effective treatment for coronavirus patients. #OANN @PearsonSharp

April 27, 2020: Report: More than 22 states stockpiling hydroxychloroquine - #OANN

May 6, 2020: Hydroxychloroquine proves to be powerful drug in fight against coronavirus @PearsonSharp #OANN

May 7, 2020: Doctors report hydroxychloroquine has over 90% chance to cure coronavirus patients

From April to May 2020, however, as the political battle over the efficacy of HCQ raged, OANN hardened its initial speculations into far more confident assertions of HCQ “proving an effective treatment” and repeating on May 6, 2020, that HCQ “proves to be a powerful drug in the fight against coronavirus.” OANN’s rhetorical creep across three months from claims of promise to proof solidifies into near-certainty, when they declare on May 7, 2020, that HCQ “has over 90% chance to cure coronavirus patients.” HCQ’s power to “cure” has evolved in this progression of tweets from an individual patient’s “claim” to a slam-dunk “90%” cure for all “coronavirus patients” in general.

The language of evidentiary proof and probabilistic near-certainty lifting HCQ from anecdote to a cure persists across the pro-HCQ/anti-vaccine sub-community in our network models. In a characteristic example of this move, “Praying Medic” drifts from open-ended questioning – “why is Turkey using HCQ for COVID-19?” and musing that “Costa Rica is one of the many nations using HCQ” to a confident proclamation that HCQ is “a de facto standard” and in time would “become the de jure standard for treating coronavirus.”

May 7, 2020: Why is Turkey using hydroxychloroquine for Covid-19?

May 21, 2020: Costa Rica is one of many nations using hydroxychloroquine to treat covid-19.

May 7, 2020: Russia has approved the use of hydroxychloroquine for the treatment of Covid-19. Gotta love how the media call hydroxychloroquine “untested” and frighten people by highlighting imaginary “deadly side effects.”

May 1, 2020: Hydroxychloroquine is a de facto standard for treating coronavirus of all types.

May 1, 2020: In time, hydroxychloroquine may become the de jure standard for treating coronavirus.

Like OANN, Praying Medic begins this sequence by promoting HCQ with open questions and soft statements of the drug being “one of many” possibilities. As the debate about HCQ’s efficacy increased in intensity, we see a corresponding hardening of the initial speculations into a “de facto” and eventually “de jure standard” of proof.

These largely conservative attempts to justify HCQ as a credible alternative to vaccines by invoking the language of logical proof and evidence-based certainty also gained widespread use as a double-edged rhetorical tool of both praise and blame, or *epideixis* in the classical model.¹⁰ We find *epideixis* in the actor James Woods’ praise of South Dakota’s implementation of a HCQ clinical trial on April 13, 2023, which quotes Governor Kristi Noem stating that “we’re going to let the science, facts, and data drive our decision.”

South Dakota implements statewide hydroxychloroquine clinical trial for potential coronavirus treatment. “From Day One, I’ve said we’re going to let the science, facts and data drive our decision-making in South Dakota.” #AndDemocratsGoBonkers

One week earlier, DeAnna4Congress uses the language of proof to blame the media:

April 6, 2020: The media’s proof that Christine Blasey Ford was assaulted was that she had two front doors on her house ... Their proof of global warming is that Al Gore & Greta say so ... So forgive me when I want to know their proof for discrediting Hydroxychloroquine + Z-pack for #COVID19.

April 6, 2020: 75% of doctors agree that Hydroxychloroquine & Zithromax are an effective treatment for #COVID19. The Media: UN-PROVEN! FAKE! NOT BACKED BY SCIENCE!

In the case of Woods, “science, facts and data” to support HCQ are all worthy of praise, whereas in DeAnna’s case, “proof” becomes a weapon of blame and takes on a negative edge, used as a probing interrogation of the media’s faulty “proof.” In these instances, the notion of “proof” can be marshalled to validating dubious claims, which harden in our models from speculation to assertions of mathematical certainty, and as a

rhetorical implement of both praise and blame to exalt ideas supported by the pro-HCQ community and to discredit skeptics who do not share the same faith in the drug.

Citing Data

Citing specific evidence in the form of quantitative or statistical data was a second nearly universal strategy appealing to reason that operates more subtly in our models than bald-faced pronouncements of proof. Citing data was used in the network models as a means to convey factual information, as in the case of @RealDonaldTrump referring to data – or “numbers” in his parlance – as a tool of praise and blame, often in a single tweet.

May 14, 2020: Good numbers coming out of States that are opening. America is getting its life back! Vaccine work is looking VERY promising, before end of year. Likewise, other solutions

June 11, 2020: The Federal Reserve is wrong so often. I see the numbers also, and do MUCH better than they do. We will have a very good Third Quarter, a great Fourth Quarter, and one of our best ever years in 2021. We will also 1 soon have a Vaccine, Therapeutics/Cure.

Here, Trump contests the Federal Reserve’s analysis of economic “numbers” as “wrong,” and in turn praises his “MUCH better” understanding of the data.¹¹ Trump uses this two-fold blame and praise strategy against the Federal Reserve as a springboard for one of his most common rhetorical moves, *amplificatio*. Trump’s self-aggrandizing interpretation of “numbers” spirals into a crescendo of ever-increasing growth at ever-grander scales: “we will have a very good Third Quarter, a great Fourth Quarter, and one of our best ever years in 2021. We will also soon have a Vaccine & Therapeutics/Cure.”

We observed the citation of data as a strategy of praise and blame as a nearly universal tactic across all of the subcommunities in our network, regardless of political or ideological leanings. @KyleGriffin1, in a particularly illustrative set of posts, cites more than “130,000” and subsequently “140,000” Americans who died from COVID-19 as a stark numerical contrast to the number 1, or “the first time” that Trump “decided to wear a face mask in public.” By contrast, he lauds Obama’s consistency in donning a facemask consistently after speaking in public.

July 11, 2020: More than 130,000 Americans have died from the coronavirus and the president has finally decided to wear a face mask in public for the first time.

July 20, 2020: Trump tweets a photo of himself in a face mask after 140,000 Americans have died from the coronavirus.

July 30, 2020: President Obama put on a face mask after he finished speaking.

The vivid numerical contrast of 130/140,000:1 highlighted by Kyle Griffin is used to equal effect by conservatives as an instrument of praise and blame. @MichaelCoudrey lauds the “cheap” status of HCQ – “without insurance, the 10-day treatment costs about \$100” – as a contrast to pharmaceutical companies pushing patented vaccines that instead “cost far more to drive up profits.” However, he finds on the other hand that HCQ is worthy of praise by the numbers, by gesturing to the numerical difference of 35 deaths out of 120 patients without treatment by HCQ at a facility in Washington state, versus 1 death out of 135 patients among a HCQ treatment cohort in Texas.

April 6, 2020: Hydroxychloroquine & azithromycin are both very cheap medicines & both are out of patent. Without insurance, the 10 day treatment costs about \$100. Closely examine who is trying to discredit this drug. They would rather push patented vaccines instead. #Hydroxychloroquine

April 13, 2020: Washington (Kirkland) nursing home: No hydroxychloroquine, 35 deaths out of 120 residents. Texas nursing home: Treatment WITH hydroxychloroquine, 1 death out of 135 residents H/t: @JamesTodarMD

Two studies with 120 and 135 subjects, respectively, are not statistically valid sample sizes to draw any comprehensive conclusions, but Coudrey relies on the large numerical contrast of 135 deaths to a single death as a self-evident demonstration that HCQ wins in this comparison.

A second major rhetorical strategy we classified in the category of citing data draws upon historical, rather than statistical, evidence as the linchpin of the praise and blame maneuver we are observing on a repeated basis. In our models, the 1918 flu pandemic emerges as a historical point of reference that many users envisioned as a parallel to the COVID-19 pandemic.¹² For example, Dr. Eric Ding on July 3, 2020, cites a photo that shows “how the 1918 pandemic was conquered without a vaccine (Figure 4.1).”

As a physician, Ding’s posts frequently use scientific data to establish his points, but in this case, he cites historical information to draw important distinctions between the public health crises of 1918 and 2020.



FIGURE 4.1 1918 Flu Pandemic Facemask Photo.

For different ends, the anti-vaccine community marshaled historical data as a mode of critique.

June 4, 2020: The same old song again. If a mysterious boogeyman can somehow render a vaccine useless for YOU, it means that the vaccine IS useless. If the vaccine can “protect” you only in the ABSENCE of exposure it means that the vaccine doesn’t work. #COVID19

June 7, 2020: Merck introduced its #measles #vaccine in 1963, claiming the vaccine would convey lifelong immunity, with health officials promising that 55% vaccine coverage would produce “herd immunity” sufficient to eradicate measles by 1967. #VaccineFailure

@LotusOak2 cites “historical vaccine safety concerns” by focusing on Merck’s 1963 introduction of a measles vaccine and their empty promise that “55% vaccine coverage would produce ‘herd immunity.’”¹³ The historical echo of a promised “herd immunity” and the hope of eventually eradicating a disease from the population amounts disappointingly to “the same old song again.”

By contrast, @WDunlap similarly deploys historical information in an attempt to praise HCQ and to add a layer of evidentiary persuasiveness to his claims about the drug.

April 5, 2020: A doctor in New York is now saying he has essentially found a cure for COVID-19, combining hydroxychloroquine with z-paks. 350 patients, 100% success rate. #COVID #COVID2019 #Covid_19 #coronavirus #VirusCorona #Hydroxychloroquine

April 6, 2020: @MarkDice Approved for medical use 65 years ago Hydroxychloroquine is now FDA approved for emergency use for the CoronaVirus Doctor in New York says he has essentially found a cure for COVID-19 combining hydroxychloroquine w/z-paks -350 patients 100% success rate.

April 6, 2020: @RudyGiuliani Approved for medical use 65 years ago Hydroxychloroquine is now FDA approved for emergency use for the CoronaVirus Doctor in New York says he has essentially found a cure for COVID-19.

Dunlap’s initial post on April 5, 2020, relies on contemporary quantitative data as evidence – “350 patients, 100% success rate” – using the weight of numbers to convey the absolute certainty of “100% success.” However, we observe Dunlap shifting strategies in subsequent posts. Unsatisfied with the impact of the original tweet, Dunlap posts identical language for three days in a row and calls out prominent conservatives

directly, including @MarkDice, @RudyGuiliani, and @BreitbartNews, to gain attention for his statements. The literal repetition of posts also adds a historical dimension to the original logic of asserting “100% success.” Dunlap insists that HCQ was “approved for medical use 65 years ago” and is now “FDA approved for emergency use for the coronavirus.”

Where Dr. Eric Ding refers to historical information to draw contrasts with the present day, Dunlap instead attempts to create a sense of historical continuity as a marker of stability and trustworthiness. According to the argument developed over this series of posts, Dunlap suggests that HCQ is time-tested and trustworthy because of its approval for medical use 65 years ago, ostensibly as a rebuke of untested, novel treatments such as COVID-19 vaccines in development in 2020.

Using Logic to Develop Multi-step Arguments

Scientists, politicians, and journalists from largely progressive subcommunities in our network models made extensive use of logic to develop layered, multi-step arguments, crafting what amount to miniature essays in the compressed format of a single tweet. Perhaps most notably, Microsoft founder and pariah of the anti-vaccine community, Bill Gates, uses a nuanced logic of contingency to voice support for vaccine research.

March 26, 2020: The international response will require funding for @CEPIVaccines’s development of a COVID-19 vaccine and for @Gavi. Thanks to @BorisJohnson and the UK for this vital commitment.

April 2, 2020: If everything goes well, there might be an effective vaccine in less than 18 months—the fastest a vaccine has ever been developed. That will depend on decisions we make today, including the federal government investing in building up manufacturing capacity.

May 1, 2020: There are over 100 different coronavirus vaccine candidates in the works. These candidates take a variety of approaches to protecting the body against COVID-19:

May 14, 2020: @narendramodi @gatesfoundation Thank you for the conversation and partnership, @narendramodi. Combating the pandemic requires global collaboration.

Gates creates a rules-based if-then scenario: “*if* everything goes well,” *then* “an effective vaccine can be developed.” The contingent logic of “if” defining the probability of “then” is even further qualified by a second-order dependency: “that will depend on decisions we make today,” with the third caveat including the need for investment by the federal government. Indeed, Gates’ tweets related to the controversial topic of vaccines

all show a subtle awareness of the complex interrelated systems working in alignment to combat COVID-19. Among 100 vaccine candidates, each takes a variety of approaches to protecting the body, and at a structural level, the successful vaccine rising to the top will require government funding and global collaboration for testing, widely accessible treatment, and minimal social and economic impact. Taken together, Gates presents a complex, interwoven argument for vaccine development, implementation, and downstream consequences.

In a similar line of detailed rational argumentation, Dr. Faheem Younus, an infectious disease physician at the University of Maryland who became a leading scientific voice during the pandemic, adopts a question-and-answer structure to make his posts more persuasive.

July 7, 2020: COVID Vaccine Instead of debating if/when a vaccine will be available, countries should focus on: - How to procure the vaccine? - Who gets it first? Why? – How to administer mass doses? Refrigeration? Supply chain? Build infrastructure NOW. Before the vaccine is here

July 6, 2020: Myth: No HIV vaccine in 35 years; so COVID vaccine is a dream Fact: HIV is different; it destroys the very cells inside of us required to generate an immune response It mutates differently & we have effective pills against HIV Relax:) COVID vaccine will be available by 2021.

July 30, 2020: Vaccine details 1: Even though a vaccine may be FDA approved it may not reach the general population for another 6-12 months. Why? Because essential workers and high risk groups may get it first.

Across these posts, Younus begins by introducing a logical prior, whether true or false, and then offers a response correcting false assumptions with “fact” or by explaining “why” a true statement should be believed. Both Gates and Younus employ a stepwise logic to increase the persuasive power of their language by appealing to a systematic sense of rational argument.

A simpler form of the logical flow we considered above includes the rhetorical strategy of *enumeration* – or the listing of elements – as an efficient way to accumulate a body of evidence in a short amount of textual space, which becomes important given Twitter’s character limit for posts.¹⁴ For example, then-former Vice President Joe Biden offers several waves of points through a list:

March 27, 2020: The relief bill passed by Congress was a good start, but now we need to: - Forgive at least \$10,000 of student loan debt

per person - Provide emergency paid sick leave to everyone who needs it - Ensure no one has to pay for COVID-19 treatment or an eventual vaccine

July 27, 2020: The development of a new vaccine requires a dedication to science, coordination, transparency, truth, and fairness to all - and we have a President who stands for none of these things.

Biden's bullet-pointed list advocates three large ideas – loan forgiveness, paid sick leave, and free treatment – in the space of four lines. The simple list can also serve as an effective means to sustain waves of attacks on opponents in a strategy of blame, which should now be familiar.

March 3, 2020: To combat the coronavirus outbreak, Trump has:
-Called it a Democratic hoax -Contradicted experts' warnings -Muzzled scientists -Proposed tax cuts & border restrictions -Pressured the Fed to cut interest rates -Refused to guarantee the eventual vaccine will be accessible to all.

The bullet-pointed enumeration of disparate elements yoked into a single message allows Robert Reich to level six pointed critiques of Trump's policies in the space of a single tweet, without the need for extended exposition. Where the verbs in Biden's message are positive, corresponding to his praise – forgive, provide, ensure – Reich's critical list directs negative verbs at Trump's policy decisions – “muzzle, contradict, pressure, refuse.” We selected these two examples to demonstrate that the listing strategy of enumeration does not simply produce a flat list of passive elements, but by including these positive and negative verbs, Biden and Reich provide their audience with a dynamic, propulsive drive forward.

A twist on the enumerated list technique we observed is reversal, or using a list to unexpectedly reveal an absence or a lack.

May 5, 2020: 1) Ignoring warnings from vaccine officials 2) Firing IGs for releasing reports detailing shortages of testing and protective gear 3) Blocking Fauci from testifying before the House. All this, and not a peep from Republicans in Congress.

Reich in this instance uses the same listing method we have characterized, by framing each element in the enumeration with a negative verb to increase a sense of disdain in his reader: “ignore,” “fire,” “block.” However, unlike the previous post, this list sets the stage for a surprising reversal. The target of his ire is not primarily Trump, but rather “Republicans

in Congress.” The litany of negative verbs gives a sense of evidentiary weight, leading to a climactic turn – “all this” – which leads to the surprising punchline of “not a peep from Republicans in Congress.” The volume of “all” the elements in his list builds up a critical mass of negative points, which in turn collapse into nothingness representing the emptiness of Congress, which can muster “not a peep” in response to the damning body of evidence in Reich’s list.

Biden, too, uses a similar misdirection in assembling a large list to paradoxically show Trump’s emptiness. The success of the new vaccine depends on the positive attributes he describes, including “dedication, science, coordination, transparency, truth, and fairness to all.” These six laudable characteristics set us up for a quick reversal after the dash – “we have a President who stands for none of these things.” From a list appealing to “all,” we collapse into a surprising contrast to “none.” In effect, Biden’s rhetorical reversal strategy gathers into a crescendo of hope signified by the positive attributes he lists, then pulls the rug from under the reader by leaving us with the disappointing emptiness of Trump – “none.”

The close cousin of enumeration and reversal is *copia*, which describes the rhetorical practices of articulating a single statement in a multitude of ways by varying words, syntax, and figures of speech. Putting *copia* into action may seem at first glance to embody repetitive bad writing, but it derives from an unexpectedly revered historical practice. The famed Renaissance humanist Desiderius Erasmus, who built from the framework of the classical rhetoricians, lauded *copia* as the foundation of elegant rhetorical persuasion.¹⁵ The most famous example of the practice comes from Chapter XXXIII of *De Copia*, where Erasmus expands the sentence “Your letter has delighted me very much” into seemingly endless variants such as: “In a wonderful way your letter has delighted me,” “I have been delighted in an unusually wonderful way by your letter,” “In truth by your epistle I have been exceedingly cheered,” “Your paper has been the occasion of an unusual pleasure for me,” “From your paper I have received a wondrous pleasure,” etc., extending to a long list of sentences filling pages of text.¹⁶ Erasmus’ influence on rhetorical education cannot be overstated, with *copia* exercises standing at the heart of writing and composition education from the sixteenth century to the end of the nineteenth century.¹⁷

Unlike the efficient barrage of the bulleted list, the *copia* strategy represents a far more languid move by taking a single position, and using numerous tweets and all of the textual space they afford to create a prism-like readerly effect where one statement explodes into many branches of a core idea. The strategy was used to surprising effect by members of the

scientific community, including @DrDenaGrayson, who voices her basic skepticism of HCQ in five different ways.

April 21, 2020: I've been very skeptical of #hydroxychloroquine (based on its mechanism) ... no surprise, yet another study is NEGATIVE, showing NO BENEFIT. Yet #hydroxychloroquine is KNOWN to cause potentially FATAL side effects. #coronavirus #COVID19

April 21, 2020: BREAKING: Study of 368 patients finds that @realDonaldTrump's favorite drug #hydroxychloroquine (±azithromycin) had NO BENEFIT for #coronavirus patients, and there were MORE DEATHS in #COVID19 patients treated with #hydroxychloroquine vs standard care.

April 8, 2020: @MayoClinic cardiologist says it's "Inexcusable" to ignore the FATAL side effects of #hydroxychloroquine. A recent study showed that ~11% of #coronavirus patients on hydroxychloroquine + azithromycin have HIGH risk for potential cardiac side effects.

All five posts share the same underlying logic: trusted scientific studies show "NO BENEFIT" with HCQ treatment, and indeed lead to "FATAL side effects." Grayson cites four different studies and uses different techniques – hyperbole, citing data across three studies, and directly quoting expert authorities – to make largely the same claim in five different posts.

On the other side of the debate, we found @vicksiern adopting the most literal use of *copia* using the all-capitalized "HYDROXYCHLOROQUINE" as the anchor for seven posts communicating the same basic meaning supportive of HCQ in seven different ways.

April 6, 2020: The FDA APPROVED HYDROXYCHLOROQUINE TO TREAT COVID-19!

April 6, 2020: Would you want to take HYDROXYCHLOROQUINE if you got Covid-19?

April 8, 2020: Should we ban any Liberal from being able to use HYDROXYCHLOROQUINE if they get Covid-19?

April 9, 2020: Do you think Democrats are upset that HYDROXYCHLOROQUINE is saving people's lives from Covid-19?

Much in the same manner, Dan Bongino levels an attack on the media in four different statements.

March 30, 2020: Because Trump mentioned it as a potential treatment, expect the Hydroxychloroquine-deniers in the media to furiously report

on any, & EVERY, negative interaction or non-therapeutic result. Essentially creating a new standard for pharmaceutical reporting applying only to this drug

April 8, 2020: Watching the hapless media move from collusion hoaxes, to Ukraine conspiracy theories, and now to Hydroxychloroquine conspiracy theories is impressive.

They are certainly committed to their disinformation craft & they won't take no for an answer. #GoTeamGo

April 8, 2020: The same media lunatics that told us that the pee-pee tape was real are now perplexed that we're not buying their Hydroxychloroquine conspiracy theories, and that we're ignoring them and doing our OWN HOMEWORK in this crisis.

From accusations of “disinformation,” “conspiracy theories,” and lunacy to slanderous epithets such as “grotesque” and “pathetic,” Bongino's tweets should not be dismissed as being inartfully repetitive, but rather taken together they deploy *copia* as a deft strategy to advance a single idea in a multifaceted way.

Emotion, Rage, and Race

Through the course of our analysis, we found that the emotional rhetorical appeals in our COVID-19 network models, as the obverse face of the coin to the rational appeals we have considered above, were more obvious as we evaluated the most central nodes in our network, both in terms of the ease of classifying the emotional content and also in terms of parsing the actual use of language in the quotes to provoke emotional responses. Many underlying unities exist with the previous analysis of rational rhetoric, including the use of countervailing praise and blame strategies, but in these emotionally driven examples, the effect of praise and blame emerges from two direct appeals to emotion (1) by qualifying an action or a statement with an emotional label, such as outrageous, absurd, disgusting, or heartwarming, or (2) by provoking an emotional response through inflammatory content that triggers a strong affective response in the current cultural context, such as blackface, police violence on black communities, or non-white minorities gaining a perceived advantage over others.

As the most dramatic example of emotional rhetoric, posts dealing with issues of race almost always possessed a clear and aggressive emotional charge. Disputes about race and its complex role in the pandemic occurred in all of our network models. As an illustration of the difference between rational and emotional appeals as two strategies to approach

a single topic, @MichaelPDeacon cites Sir Desmond Swayne, the UK Member of Parliament who argues that anyone offended by his bizarre equation of facemasks and blackface “have lost their sense of proportion.”¹⁸ By contrast, @GlamazonJay excoriates this call for reason and proportion:

June 28, 2020: Bitch we know the difference between a face mask and blackface. Now this is just fucking insulting.

GlamazonJay decries the decision by the streaming platform Hulu to remove a “Golden Girls” television episode where the main characters wore mud masks, due to concerns over blackface and perceived racism. This scathing critique of an imagined equivalence between wearing a facemask and blackface stands as an aggressive statement of blame, hurling the epithet “bitch” and rejecting the decision outright by labeling it as “fucking insulting.” However, in June 2020, in the midst of the COVID-19 pandemic and approximately one month after the police killing of George Floyd, this post becomes a Rorschach test of the times, with users liking and commenting on the post as a reflection of anti-masking sentiment and a critique of the Black Lives Matter movement and the so-called cancel culture. Where the MP in the first post who initially made the inflammatory remark appeals to a calm, reasonable “sense of proportion,” the second post’s emotional rejection and subsequent racialized furor in the comments demonstrate instead that racial provocations cannot be rationalized or smoothed over by calls for calm reason and proportion.

The debate over vaccine development and efficacy frequently adopted an emotional register inflamed by race. For example, @InevitableET fans the flames of racial hierarchy by distorting the words of Melinda Gates, a favorite target of conspiracy theorists.

June 28, 2020: Melinda Gates: ‘Black People, Indigenous People’ Should Get Coronavirus Vaccine First.

By tying Melinda Gates, the ex-wife of anti-vaccine bogeyman Bill Gates, to a racialized system of favoritism that lets “black people, indigenous people” jump to the front of the line, @InevitableET aims to trigger outrage by invoking a dystopian conservative nightmare where vaccine access creates a race-based hierarchy in which whites are displaced from precedence and fall to last in line.

In a peculiar case of attempting to have it both ways, conservative firebrand Candice Owens uses race in a blaming strategy against the

World Health Organization (WHO) and the Food and Drug Administration (FDA).

April 15, 2020: Experimenting on and incidentally paralyzing and infertilizing poor colored children in Africa and India is as dangerous as it sounds. @WHO got around FDA vaccine regulations by traveling to third world countries and offering ‘philanthropy’. You are both absolute scum.

Here “poor colored children” serve as objects of sympathy and not racial outrage, and with Owens reframing the target of her outrage to the “absolute scum” of her adversaries.

The final racially charged emotional move lies in the conservative effort to link COVID-19 to China as a piece of a greater ethnic conflict. The right-wing agitator Charlie Kirk, who consistently labels COVID-19 as the “China Virus,” blames the “lead NIH scientist working on the China Virus vaccine” for “rants about white privilege” and suggestions that COVID is “genocide against black people.”

March 11, 2020: Wow: Watch this testimony. Getting a vaccine for the China Virus into testing for phase one development has occurred the fastest “that anyone has done literally in the history of vaccinology” The media says Trump is failing RT so they can’t ignore this!

March 16, 2020: BREAKING: A new vaccine is in the works for the China Corona Virus The first participant in the clinical trial will receive his test on Monday Dr. Anthony Fauci has said the process of getting this vaccine into testing has occurred at the fastest rates in history Incredible!

July 21, 2020: Let me get this straight-Bill Gates, a software developer, is allowed a platform to discuss a vaccine ... But actual Doctors who have fought the virus on the frontlines are censored when they talk about drugs they used to treat the virus?

Kirk fans the flames of racial tension here along three axes – an ethnic conflict with China, white privilege, and black genocide – before turning to accuse the scientist of developing a cure that is “guided by her racism.” Kirk’s insistence on inflaming racially motivated conflicts between China, blacks, and whites transforms into a peculiar slight of hand, where he appends the “racist” label into the subject of his scorn, belying the array of racial provocations he has used to set the stage for this insult.

This racialized rhetorical deflection is also apparent in Jenna Ellis' post, where she frames an Asian American reporter in terms of hysterical emotion – “MELTDOWN” and “SCREAMS” – while she bounces the racial indignation back to the incredulous reporter, who simultaneously serves somehow as the subject and object of racial outrage – “Uh, you asked question. Idiot.”

May 11, 2020: MELTDOWN: Asian-American CBS Reporter Drops Face Mask, SCREAMS at Trump for Telling Her to ‘Ask China’ About the Coronavirus Her: “Why are you telling ME specifically to ask China?” Um, YOU asked the question. Idiot.

Direct Citation of Emotions

As we observed in the racial outrage above, emotional rhetoric often cites states of feeling in baldly literal terms to frame a message. This direct citation of emotion can be as simple as a modifier appended into a sentence.

April 14, 2020: The horrific truth about Bill Gates vaccine programmes - HORRIFIC: #jailBillGates

Icke inserts the “horrific” adjective to the “truth about Bill Gates” to telegraph to the reader how we should emotionally respond to the contents of the provided link. In case we have any doubt about how we should feel about Bill Gates, he appends an all-capitalized “HORRIFIC” to emphasize the emotional register he aims to provoke in us.

Perhaps unsurprisingly, the invocation of emotion plays out on the rhetorical spectrum from praise to blame that we have analyzed in the preceding examination of appeals to reason. Emotion as a form of blame most frequently involves identifying an outrageous or exaggerated emotional reaction from an adversary. For example, Candice Owens describes the media and Democrats' resistance to HCQ as “hysterical overdrive,” in an attempt to frame her own vantage point as calmly reasonable – “that’s indication enough for me that I ought to secure it for my medicine cabinet.”

May 19, 2020: From the first utterance of “hydroxychloroquine” as a potential treatment for #coronavirus, our media and Democrats have been in hysterical overdrive trying to discourage the sick from trying it. That’s indication enough for me that I ought to secure it for my medicine cabinet.

Nearly identical accusations of hysteria are leveled by Piers Morgan at those who resist wearing facemasks, or those people “screaming” in all-capitalized “I REFUSE...”

July 14, 2020: The WW2 generation had to fight in godforsaken trenches & see their friends blown to pieces. We’re being asked to wear a face mask when we go shopping.

Can everyone please get a bloody grip. The whiners are absolutely pathetic.

July 14, 2020: Imagine being one of those people now screaming ‘I REFUSE TO GO SHOPPING IF I HAVE TO WEAR A SIMPLE FACE MASK TO HELP SAVE LIVES FROM THE WORST KILLER VIRUS FOR 100 YEARS’? Actually, I can’t even imagine being that stupid.

From his position of assumed lucidity, the emotional outrage of the “stupid” anti-maskers exceeds his calm capacity for imagination.

Not all citations of emotional states, however, were negative or used exclusively for blame. The GlobalNewsTimes positively describes a “heart-melting moment” of a little boy and his dog.

Heart-melting moment! A viral video shows a little boy in Ecuador putting a face mask on his dog before putting on his own, as they prepare for a bike ride.

These unvarnished instances of positive emotion were rare to find in our models, with most positive emotional states typically being qualified or tempered in some way. For example, Dan Rather repeats his “desperate hope,” which does not express an unalloyed dream for a vaccine, and better therapeutics, but rather a more vexed “desperate” state that injects a sense of emotional unease and discomfort into his other positive aspirations.

July 22, 2020: I desperately hope we get a vaccine. I desperately hope we get better therapeutics. But all you have to do is look around at other parts of the world and realize that there are tools for controlling this virus. It just requires not acting like a fool. Wear a mask!

False Comparison and Provocation

Apart from the most literal references to emotion above, several rhetorical moves operating at an emotional register function more subtly. The first can be called a false comparison. These strategies follow the logic of the rational appeals we have described above to an extent, but take the added

step of assigning an emotion to the articulated comparison. For example, @sexsparenting compares Gilead Pharmaceutical's PrEP, an HIV prevention drug, to the efforts to develop a COVID-19 vaccine.¹⁹

March 9, 2020: Gilead Sciences is the vile pharmaceutical company that makes billions annually profiteering from PrEP, a highly effective HIV prevention drug developed with taxpayer funds that now costs \$2000-\$3000/month in the US. They want to do the same thing with a coronavirus vaccine.

June 16, 2020: There is no AIDS vaccine. PrEP, or pre-exposure prophylaxis, is a highly effective HIV prevention drug developed with taxpayer funds that costs \$8/month in Australia and \$2400/month in the USA. The CDC estimates over 1 million Americans need PrEP and can't afford it.

However, the comparison is not meant to provoke a thoughtful parallel, but rather outrage. They label Gilead as "vile," identifying the tenuous comparison between the drugs as a site of disgust.

On the other end of the vaccine debate, @JosuaPotash mingles "race and police brutality" in a critique of Trump.

June 16, 2020: In a speech theoretically about race and police brutality Trump just said: "They've come up with the AIDS vaccine." There is no such vaccine.

March 3, 2020: Trump thinks we should use the flu vaccine to defend against coronavirus. We could not be in worse hands.

May 21, 2020: The most frightening thing about this pandemic is that even when we do have a vaccine countless Americans will refuse to take it.

The incongruity of emotionally charged topics in June 2020 such as racially motivated police violence with Trump's incorrect assertion of an "AIDS vaccine" sets up a false parallel between the racial tensions we examined above, and Trump's inaccurate statements. He bluntly communicates the emotional register of his posts in labeling the "frightening" nature of vaccine deniers.

False comparisons also lead to humorous, and not necessarily frightening, effects. @ConservBlue2020 responds to Charlie Kirk by advising him to "wear a face mask and wear a condom! Problem solved!"²⁰

July 5, 2020: @his_story_gamer @FoxNews Just wear a face mask!

July 5, 2020: @his_story_gamer @FoxNews Just wear a face mask!

July 3, 2020: @charliekirk11 Wear a face mask and wear a condom! Problem solved!

The comparison of a face mask and a condom as two prophylactic methods is tenuous, but nevertheless, the misalignment results in a humorous dissonance and jab at the conservative figure. @Jeremy Faust uses the same strategy provoking a humorous response in his parallel of “prayer versus HCQ.”

May 2, 2020: Prayer versus hydroxychloroquine. Same lack of mortality benefit. None of the fatal heart arrhythmias!

Both do not cure COVID-19, but he wryly notes that prayer has no side effects unlike the unproven treatment for the virus. @TedLieu, too, adopts a similar line of critique of HCQ, with a comical comparison of the drug to grape juice.

April 6, 2020: It's possible hydroxychloroquine helps #Covid-19 patients. It's also possible if you gave them grape juice or a placebo you would get similar results. Without controlled studies we really have no idea. But we do know hydroxychloroquine can cause cardiac toxicity for some people.

These pseudo-absurd comparisons to elicit an emotional response take on a negative charge with @OMGno2Trump, who on June 25, 2020, radically equates “people who don't wear masks in public” to “the pandemic version of drunk drivers.” The extreme parallel does not pass a logical test of validity, but its absurdity provokes in our minds the disdain and horror we associate with drunk drivers whose actions can harm or kill innocent bystanders.

Exaggeration and Absurdity

The false comparisons we note above verge on being unbelievable or at best implausible. We can take this rhetorical strategy to an extreme by observing the structure of posts that explicitly describe exaggerated and absurdly extreme scenarios to provoke shock and surprise in the reader.²¹ The debates over face mask mandates contained the strongest hyperbolic responses, frequently, by linking face masks to racial tensions. RT (Russia Today) connects the face mask controversy to China as the origin of COVID-19 by describing how a woman was “dragged from (a) supermarket for refusing to wear a face mask.”

February 14, 2020: #Coronavirus scare in #China: Woman dragged from supermarket for refusing to wear face Mask

The scenario represented by the post pushes the conflict over masking to an extreme – if you refuse to wear a mask in public, you will be ostracized and become the target of physical violence to force compliance and induce feelings of shame and fear. RT makes it crystal clear how we should feel when reacting to this story – “#Coronavirus *scare* in China” (emphasis ours) – that serves as a meta-commentary in the form of a hashtag that appends a negative emotional state to the violent incident in China.

Both conservative and progressive news outlets cite or describe these absurd scenes of violence to provoke horror and disbelief by coupling face-masks with a racial vocabulary.

June 24, 2020: Oregon county issues face mask order that exempts non-white people.

The conservative New York Post notes on June 24, 2020, that an “Oregon county issues face mask order that exempts non-white people,” fanning the flames of racial division by linking a legal “order” to wear face masks to a racialized hierarchy that purportedly advantages “non-white people” with an exception giving some races the freedom to choose. By contrast, the post casts the white population as oppressed by the masking order and effectively relegates them to the status of second-hand citizens without the power to choose.

February 6, 2020: Woman wearing face mask attacked in possible coronavirus hate crime

In another post, the New York Post also links masking to questions of race and violence, citing a “woman wearing (a) face mask attacked in possible coronavirus hate crime.” The New York Post in effect flips the previous narrative by showing how someone complying with masking mandates can be equally subject to violence that rises to the level of a “hate crime.” The New York Post effectively plays both sides of the racial debate, with their February 6 post in the early weeks of the pandemic showing someone complying with the masking mandate as the victim of a “coronavirus hate crime,” while their later June 24 post, when political positions related to masking hardened, transforms race into the basis of a hierarchy that privileges “non-white people” and that turns the white population into the victims of policy-based racism. Depending on the political moment and context, the New York Post returns consistently to a register of racialized violence for both mask-compliant and anti-masking groups, depending on whichever position is more politically advantageous at the time.

These emotionally laden posts describing violence are disproportionate to the offense of masking or not masking is not exclusive to right-wing news venues. The Daily Beast reports on July 8, 2020, of a “Florida man going berserk when asked to wear a facemask at Costco” and one week later on July 14, 2020, a “man at a KC barbecue who “flashed his gun ... when asked to put on a face mask.”

July 8, 2020: The Florida man shown going berserk when asked to wear a face mask at Costco has been fired from his job.

July 14, 2020: A man at a Kansas City barbecue restaurant flashed his gun at a staff member when asked to put on a face mask before entering.

These posts represent mask-related rage and violence that are not coupled to race, but do echo the previous examples from conservative news in depicting scenes of absurd violence and anger in relation to the relatively harmless request to don a mask in public spaces.

A second major trigger point for these exaggerated emotional provocations lies in the conflict over the efficacy of HCQ. On one side, we see posts such as those from @BabylonBee, who mocks a “liberal treated with HCQ (who) hopes he still dies of COVID-19 to prove Trump is stupid.”²²

April 7, 2020: Liberal Treated With Hydroxychloroquine Hopes He Still Dies Of COVID-19 To Prove Trump Is Stupid

April 11, 2020: Liberal Treated With Hydroxychloroquine Hopes He Still Dies Of COVID-19 To Prove Trump Is Stupid

May 16, 2020: Liberal Treated With Hydroxychloroquine Hopes He Still Dies Of COVID-19 To Prove Trump Is Stupid

The “liberal” in question embodies a two-fold emotional paradox in this instance – *hoping* to die so as to *spite* Trump in *malice*. To hammer home this point, BabylonBee repeats the content of this post verbatim three times from April 7 to May 16 to emphasize the seeming farce of liberal HCQ opponents.

In the opposing direction, we observe Rep. Maxine Waters initially voicing her disdain of Trump by suggesting he “is endangering the lives of people who believe and follow his advice” and proceeds to call for him to be “denied TV time with his unhinged cures.”

April 25, 2020: Date: 00-25-04-2020 Text: If pushing #Hydroxychloroquine wasn't enough, Trump is now suggesting disinfectant & ultra-violet light as a COVID19 treatment! Trump is endangering the lives

of people who believe & follow his advice! He needs to shut up & be denied TV time w/his unhinged cures & remedies!

May 19, 2020: Trump says he's been taking #Hydroxychloroquine for almost 2 wks. Don't do as Trump does or suggests. Any disinfectant, like bleach or Lysol, & ultraviolet light are not remedies. His unhinged notions could cause your death. He'd just say you sacrificed your life for the economy!

Waters amplifies her calls one month later, however, by making the same point, but with the twist of linking Trump's "unhinged notions" much more dramatically as a "cause" of your death, implicating the reader of her post rather than calling for a reduction in TV exposure. She speculates in his voice that he would callously accept "sacrificing your life for the economy." Representative Waters' initial critique directs her anger at Trump, but the second reflects Trump's support of HCQ, bleach, and ultraviolet light as directly causing one's death as a suitable sacrifice to reopen the economy. When a simple critique of Trump's messaging does not suffice, Waters adds an exaggerated hyperbolic scenario that directly implicates the reader, forcing them to pay attention.

Humor and Ridicule

Humor, used either for a light-hearted comic effect, or to more pointedly ridicule a target of scorn, was deployed extensively in our network models.²³ At the most obvious level, humorous posts inserted emojis to signal their comic intentions. For example, Jordan Sather draws a false parallel to the joking effect, punctuating his message with a smiling emoji.

April 17, 2020: The coronavirus vaccine is going to eliminate the coronavirus just like the flu vaccine eliminated the flu. 😊

@O_Rips similarly uses emojis to critique vaccines, suggesting that any alternative "still sounds better than a Bill Gates vaccine + emoji, #Science." This post inserts the emoji and the #Science hashtag in tandem as a meta-critique embedded within the content of his statement.

Hashtags were an effective meta-commentary capable of delivering the punch line of jokes. @BantheBBC, for instance, slyly compliments Boris Johnson's fashion – "love your suit" – before adding "#Facemask #WearAMask" to indicate in jest that the Prime Minister's outfit lacks a crucial piece.

July 14, 2020: One more thing @BorisJohnson Love your suit! #face-mask #WearAMask

He is at other moments more overt in the use of hashtags, particularly in a post critical of the UK's lack of mask mandates, signaling that the policy amounts to a “#COVID-19 FACE MASK FARCE.” If the first post uses the hashtag as the punch line of a joke, the second describes the content of the tweet as a “farce” in itself.”

Other moments of humorous ridicule abandon all attempts at subtlety altogether. Rick Wilson, for example, begins his post with bland factual assertions backed by statistics, but moves us in a completely nonsensical direction by punctuating his commentary by calling Trump the “idiot Alchemist.”

May 18, 2020: Hydroxychloroquine does not cure or prevent COVID-19 and may cause heart problems. But 40% of America will now pretend it does because The Idiot Alchemist is taking it.

In this moment of blatant comic reversal, health-related data and statistics give way to petty name calling, to humorous effect.

Unsurprisingly, these attempts at ridicule all too often degenerate into sophomoric name-calling, as in the case of Piers Morgan taunting an opponent with the logical equivalent of “I know you are but what am I?”, by responding “I quoted you directly. So if it's ‘ridiculous’ then it's your own words that are ridiculous.”

April 16, 2020: You literally tweeted that we can only exit full lockdown when there's a vaccine. I quoted you directly. So if it's ‘ridiculous’ then it's your own words that are ridiculous.

In a strange perversion of the multi-step logical arguments we considered among the rhetorical strategies appealing to reason, Morgan transforms the “if-then” conditional logic we observed with Bill Gates into a playground insult hinging on a sense of the “ridiculous,” which was lobbed at Morgan and which he subsequently reflects back to the original poster. In this petty application of recursive logic, the humorous intention of ridiculing an adversary involves applying a conditional if-then logic to the word “ridiculous” itself to insult the original ridiculer. Suffice it to say that examples of childish name-calling and rhetorical strategies of blame using inartful ridicule and blatant shaming tactics abound in repetitive fashion. We will not belabor this category of humorous scorn beyond this explanation of the underlying rhetorical moves exploiting humor as a strategy of blame as deployed in general, as we have described in the above.

Now that the role of rhetoric, reason, and emotion during in a networked space during the COVID-19 pandemic of 2020 has been detailed, we will now turn to a critical examination of the epistemological implications and meaning of this digital discourse in the following chapter.

Notes

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SECTION III

**Our New Networked
Politics**

5

CRITICAL ANALYSIS OF DIGITAL DISCOURSE

In Chapter 4, we noted several ironies, such as Twitter posts by the political right that used rational language to support irrational ideas or unfounded claims, especially when it came to claims about using hydroxychloroquine to treat COVID when there was no scientific evidence to reasonably back its use. Meanwhile, scientists and journalists, as well as politicians on the left, made use of rhetorical logic, emphasizing the fact that there was no scientific proof to show the benefits of taking hydroxychloroquine to treat coronavirus, while there was clear evidence about the risks and side effects of the drug. Additionally, these groups frequently fact-checked false claims made by then President Trump and others. Throughout these networks, we also see where emotions, false comparisons, exaggerations, and absurdity were employed, as well as humor and ridicule. We must now consider the impact of rational language used to support irrational ideas – what does it mean, and what is its affect? For this, we turn to scholars of the so-called “Frankfurt School” who critically examined the role of reason in social, cultural, and political life.

Frankfurt scholar Max Horkheimer examined how Nazis made their agenda seem reasonable, while also expressing skepticism of the counter-pragmatism espoused by John Dewey at the time, in his famous book, *Eclipse of Reason*.¹ We will apply Horkheimer’s philosophy, along with critiques from other scholars of the Frankfurt School (including Theodor Adorno and Herbert Marcuse), to the memetic and short-formed digital discourse on social media. Herein, we describe a form of negative dialectics in social media networks, in which the social network *is* the society.

In this chapter, we also consider the idea of “simulacrum,” in which simulation (social media) is the reality (the society). Our analysis will also turn Karl Marx’s description of “base and superstructure” on its head. What once may have been considered the societal base with a networked superstructure now equals the social networked base, and the real society is the superstructure rooted in the network. What does this real society look like? For that, we turn to the work of Nietzsche,² particularly his idea of “ressentiment” as emotional reasoning and emotional jealousy over something.

Reason and Science

In the *Dialectic of Enlightenment*, Horkheimer & Adorno (2002) define reason and enlightenment era thinking through a discussion of the philosophy of Kant, Leibniz, and Descartes.³ In summary, they noted that “[t]hinking, as understood by the Enlightenment, is a process of establishing a unified, scientific order and of deriving factual knowledge from principles.”⁴ Horkheimer and Adorno (2002, p. xiv) discuss how humanity can also slip into barbarism. Furthermore, they stated that the germs of regression exist within “the institutions of society” and warned that if enlightenment thinking

does not assimilate reflection on this regressive moment, it seals its own fate. By leaving consideration of the destructive side of progress to its enemies, thought in its headlong rush into pragmatism is forfeiting its sublimating character, and there its relation to truth. In the mysterious willingness of the technologically educated masses to fall under the spell of any despotism, in its self-destructive affinity to nationalist paranoia, in all this incomprehensible senselessness the weakness of contemporary theoretical understanding is evident.

(Horkheimer & Adorno, 2002, p. xvii)

Furthermore, Horkheimer and Adorno go on to describe the role of economic productivity, and technological systems, as well as the social groups that control them as having a disparate advantage over the rest of the population.

However, Horkheimer and Adorno (2002, p. 9) argue that the Nazi version of barbarism throughout the 1930s and 1940s was not a relapse into the past, but rather a “degeneration of the equality of rights into the wrong inflicted by equals.” In other words, “the oppression of society always bears the features of oppression by a collective.”⁵ As they later articulate, while enlightenment thinking and the positivism of science see

themselves as mutually exclusive from feeling, religion, and art – when a culture turns its focus to the immediate circumstances of everyday life and the economic system, it can become a “cult of emotions.”⁶ In the case of Nazi Germany, Jewish culture and traditions were transformed via this kind of cult of emotions “into abominable misdeeds and terrifying specters.”⁷ Thus, Nazi propaganda fed this cult of emotions through its cultural industries that identified an enemy, and a target for resentment – the Jews.

As we noted the use of humor and ridicule in memetic content through our data visualizations, we should also consider not dismissing its power. Horkheimer similarly described the destructive force of mimetic⁸ devices during Hitler’s regime:

Anyone who ever attended a National-Socialist meeting in Germany knows that speakers got their chief thrill in acting out socially repressed mimetic drives, even if only in ridiculing and attacking racial enemies accused of impudently flaunting their own mimetic habits.⁹

Thus, we need to critically consider the role of laughter, amusement, and culture in political discourses, especially in the digital age in which memes and mimes can be potent.

The “culture industries” as defined by Horkheimer and Adorno (2002) included broadcasting and print media of the day, and the information, entertainment, and cultural reproduction they transmitted were understood to be accepted by consumers with little intellectual resistance to the meaning of content or the type of knowledge it provided. More critically significant though is that “the more strongly the culture industry entrenches itself” within the day-to-day lives of consumers, “the more it can do as it chooses with the needs of consumers—producing, controlling, [and] disciplining them” even through entertainment, as “[t]o be entertained, means to be in agreement.”¹⁰ Therefore, we cannot dismiss German consumption of anti-Semitism through entertainment programming as innocent, neither can we accept the liking, sharing, laughing, and ridiculing others (especially within the milieu of affective polarization in politics) on social media as nothing more than inconsequential amusement. There are reasons for what we post and what we consume in digital spaces, just as Horkheimer and Adorno (2002, p. 122) described the consumption of antisemitic tropes within Nazi propaganda:

[s]etting out in their pillages, they construct a grandiose ideology for what they do, with fatuous talk of saving the family, the fatherland, humanity. But ... they remain dupes.

Of course, Germans in the 1940s would likely not consider themselves “dupes,” and neither would those who consume disinformation, misinformation, fake news, and whatever else online. Rather, algorithmically charged digital platforms (governed by nothing more than the logic of capitalism) provide a steady stream of content that is intended to keep users engaged, and the algorithm notes what individual users like, share, comment on, or otherwise engage with. This process also plays into the confirmation biases of individual users, as they do not purposely seek out information that may contradict their preconceived world view, but rather regularly seek out rhetoric, memes, or other information that only affirms their beliefs. This phenomenon was similarly described by Horkheimer and Adorno as megalomania or paranoia, in which the megalomaniac or paranoiac centers themselves in any discourse, and

perceive the outside world only in so far as it corresponds to their blind purposes, and they can only endlessly repeat their own self, which has been alienated from them as an abstract mania.... This naked schema of power ... seizes whatever comes its way and, wholly disregarding its peculiarity incorporates it in its mythic web. The closed circle of perpetual sameness becomes a surrogate for omnipotence.¹¹

When thinking of the process of confirmation bias being fed by algorithms at such a scope and scale, perhaps it becomes easier to understand how political discourse on digital platforms can feed affective polarization, especially if we consider this affect as a paranoid form of consciousness. As Horkheimer and Adorno (2002, p. 157) explained, such pathologies of consciousness tend to give rise to factions. Furthermore, this works on a larger level as polarized groups tend to be strengthened by their cohesion to others of like mind.

At the same time, while we see cohesive networks in digital space, we may also question whether there is the same kind of organization and networking in real space. Horkheimer and Adorno claimed that communication media of their age caused isolation in the intellectual sphere as well as in the physical one.¹² In this sense, individual social media users sit in physical isolation and increasingly interact with those of like mind only in networked digital spaces, and yet their online content consumption, interactions online affect and reify their beliefs and actions in real space.

This may also be considered a “simulacrum” in which the representation of political discourse taking place in the form of social media posts, likes, and memes has taken the place of real-life political engagement. Or, put another way, we can think of this simulacrum as turning Marx’s “base and superstructure” model on its head. Marx posited that an economic

base and means of material production within society determined its culture, philosophy, politics, and ideology.¹³ However, in the case of digital politics, it is the culture, ideology, and affective polarization online that help determine our real-life relationships.

While enlightenment and reason synthesize philosophical concepts, negative dialectics reject this kind of reconciliation and instead focus on the contradictory elements of philosophy. As Marcuse put it, the “world contradicts itself ... but philosophical thought begins with the recognition that the facts do not correspond to the concepts imposed on them by common sense and scientific reason.”¹⁴ Adorno’s treatise on negative dialectics draws our attention to nihilism and despair in contrast to reason and enlightenment.¹⁵ Adorno described the “moral defamation” of people who refused “to accept the Western legacy of positivity and to subscribe to any meanings of things as they exist.”¹⁶ This, according to Horkheimer and Adorno, is what made fascism in Nazi Germany possible, and powerful:

The content of the fascist ticket is so vacuous that it can be maintained as a substitute for something better only by desperate efforts on the part of the deceived. Its horror is that of the blatant but insistent lie. While it admits no truth by which it might be measured, its absurdity is so monstrous as to bring truth negatively within reach, so that it can be kept apart from those deprived of judgement only by their total abstention from thought.¹⁷

While this may sound like today’s right-wing MAGA movement, it may also help explain the broader political-right’s movement from the guard rails of reason to embracing the post-truth ethos of Trumpism. As Adorno said,

Originally lurking in what Nietzsche still extolled as intellectual honesty is the self-hatred of the mind, the internalized Protestant rage at the harlot Reason. A rationality that eliminates imagination... such a rationality is tainted with irrationalism. A change also occurs in the function of critique: it repeats the transformation of the bourgeoisie from a revolutionary class into a conservative one. An echo of this condition is the ... pervasive malice of a common sense proud of its own obtuseness.¹⁸

In order to understand this transformation better from the inside of a philosophy that would better propound it, we should look to Nietzsche himself, as thus far, we have only sought to describe it from the vantage point of its critics.

Truth and Post-truth

When considering discourses of rage over reason, the philosophy of Friedrich Nietzsche merits some consideration as well, especially as a thinker who often abandoned “any sense of decorum” in his writing, and as Golffing (1956, p. viii) further noted, Nietzsche is “most engaging, whenever he indulges freely in his polemical rage.”¹⁹ In his nihilistic treatise, Nietzsche asserted that all forms of knowledge are nothing more than a matter of perception and thus dismissed the very ideal of “reason” itself (Nietzsche, 1956, p. 255). While Nietzschean philosophy provided a foundation for poststructuralism and postmodernism, it may also explain post-reason, post-knowledge, and post-truth. In fact, Nietzsche (1976, pp. 46–47) argued that “truth” is actually:

A mobile army of metaphors, metonyms, and anthropomorphisms—in short, a sum of human relations which have been enhanced, transposed, and embellished poetically and rhetorically, and which after long use seem firm, canonical, and obligatory to a people: truths are illusions about which one has forgotten that this is what they are; metaphors which are worn out and without sensuous power; coins which have lost their pictures and now matter only as metal, no longer as coins.²⁰

This idea of truth can be thought of as an ascetic ideal of sorts that is disciplining itself from any indulgence of reason, rationalism, and any other form of what might be considered as elitism.

Applying a Nietzschean analogy here, it could be argued that the MAGA culture views themselves as suffering under the intellectual elite – the educated, the media, the government, and a morality that in their view casts them as ignorant and xenophobic, etc. – wherein they developed a deep resentment and long-lasting hatred of their perceived enemies, the intellectual elite. Nietzsche’s term for this, “ressentiment,” perhaps best describes the emotionally based morality of MAGA that summarily blames and comprehensively condemns anyone outside its own scope of understanding.

Of course, this “ressentiment” carries a form of “envy” of those they also despise, and thus calls for an “ascetic priest” to more pointedly direct their rage. “[A]n emotion of maximum violence is required, and any pretext that comes to hand will serve” the function of identifying who is responsible for their perceived discomfort (Nietzsche, 1956, p. 264). In this view, Trump is the “ascetic priest” described by Nietzsche, and he expresses the same affliction of resentment toward intellect elites, as well

as any assertions of objectivity, reason, or science that would contradict the MAGA world view.

Post-truth and Epistemological Crisis

There are sharp cleavages in the polarized affective politics of truth, as well as what even counts as fact. The political left and right share no common standards of evidence. Moreover, science, expertise, and institutions of knowledge production (e.g., universities and journalism) are viewed with hostility by the far right, especially when knowledge or facts conflict with political interests or cultural world view. Science, empiricism, and even simple inductive matters of fact, as well as rationalism and other methods of reason or deduction based on observation, are summarily dismissed by disputing the observations and asserting counterclaims without any evidence except emotion. Only testimonials and trusting those with similar cultural-political values are accepted. In 2016, Oxford Dictionary declared “post-truth” as the word of the year and defined the term as “relating to or denoting circumstances in which objective facts are less influential in shaping public opinion than appeals to emotion or personal belief.”²¹

Francis Bacon described this kind of epistemological fallacy as a phantom that clouds the mind and impairs objection and apprehension, or an “idol of the tribe.”²² Today, it is often referred to as “tribalism.”²³ Idols of the tribe are prone to excessive reliance on immediate impressions, premature judgments, and rushing to conclusions. Thinking (or “reasoning” so to speak) is imposed to fit the preferences or beliefs of the tribe. This may be characterized by wishful thinking and a strong tendency to believe and actively seek proof for one’s own pre-existing preferences (in accordance with the rest of the tribe). Social media, especially Twitter during our period of study here, fosters a digital tribalism in which the algorithm feeds our online networks with a steady stream of like-minded content in the form of memes and hot-takes, as well as a mix of information and misinformation that comports to our own world view.

Bacon (1902) describes other idols as well, including “idols the market,” wherein there is a reliance on words and names for things that may erroneously conflate familiar language for knowledge. In online media, we see this illustrated in clever memes and manipulation through impassioned responses to tribal tropes, as articulated in Chapter 4. Other examples of this kind of linguistic determination can be seen as “socialism = bad,” without interrogating social security, Medicare, or critically interrogating terms such as “antifa.” Clearly, there is an ontological error in conflating words with things (e.g., if someone is described as an “antifa,” he must be “anti-patriotic,” “BLM,” “Marxist,” etc., because the right-wing tribe

has framed all of these things as negative). This ontological error coincides with the immediate knee-jerk reaction of the idols of the tribe, as these words can also be ambiguous. For instance, a patriotic American may have supported US involvement in World War II to fight the rise of fascism in Germany and Italy (hence, patriotism = anti-fascism) yet fails to see so-called “antifa” as anything but unpatriotic in its support of the BLM movement.

Another type of idols described by Bacon are “idols of the theater,” which refer to excessive abstractions and generalizations in discourse. This is another fitting analogy that can be applied to the post-truth environment of online media. There was a lot of speculation based on anecdotal or spurious evidence, especially during the coronavirus pandemic on Twitter in 2020. Idols of the theater are also related to idols of the market in that the world is fashioned with words (and simplistic concepts), broad generalizations without supporting empirical observation, or intellectual interrogation. There were often simple substitutions of belief (or feelings) over scientific or intellectual investigation (e.g., I just don’t believe in vaccinations).

Last, there are “idols of the cave” as described by Bacon. These refer to erroneous beliefs, prejudices, and other distortions related to family, tradition, and culture, and are similar to idols of the tribe in that there is an extreme reliance on particular authority figures (e.g., Fox News cable network and its opinion-program hosts, QAnon online, etc.). Confirmation bias and validation are curated through like-minded people (e.g., Rush Limbaugh’s “ditto-heads”).

Affective Politics and Polarization

While affective politics and affective polarization tend to be described as a type of “both-sideism” that applies to both the political left and right, our discussion in this chapter has brought to light a more pronounced impact on the political right, especially the far-right that includes MAGA and Trumpism. Similarly, the dialectics of reason and science may be applied more broadly to online discourse, while the negative dialectics of truth and post-truth better fit social media’s super-users (those with a large number of followers, who are often central to social media networks). The kind of moral relativism that networked discourses create may also be considered Adorno’s worst nightmare – there is a razor’s edge in the discernment of truth in the post-truth age – and affective polarization online is only making the nightmare even worse.²⁴

As Tornberg (2022) stated, the rise of affective polarization poses “a severe societal risk, threatening democratic institutions and constituting a

metacrisis, reducing our capacity to respond to pressing societal challenges such as climate change, pandemics, or rising inequality.”²⁵

In Chapter 6, we will reconsider the use of reason and emotion in networked political discourse, as well as the role of algorithms and technological platforms in shaping content. We will explicate the negative dialectics of our online discourses. As Marcuse said, we will critique “the given state of affairs on its own ground,” including the established system of contemporary digital life, “which denies its of promises and potentialities.”²⁶ Accordingly, we will consider how journalists and others may need to adapt in order to have a meaningful impact in networked politics.

Notes

- 1 Horkheimer, M. (1974). *Eclipse of Reason*. New York, NY: Continuum.
- 2 Nietzsche, F. (1956). *The Birth of Tragedy & The Genealogy of Morals* (translated by Francis Golffing). New York, NY: Doubleday.
- 3 Horkheimer, M. & Adorno, T. W. (2002). *Dialectic of Enlightenment* (Guzelin Schmid Noerr, ed.; translated by Edmund Jephcott). Redwood City, CA: Stanford University Press.
- 4 Horkheimer and Adorno (2002), p. 16.
- 5 Horkheimer and Adorno (2002), p. 16.
- 6 Horkheimer and Adorno (2002), p. 72.
- 7 Horkheimer and Adorno (2002), p. 72.
- 8 To be clear, “mimetic” and “memetic” content are different concepts, but related here. “Memetic” refers to the concept of “memes” as described by Richard Dawkins in his 1976 book, *The Selfish Gene*, and refers to how ideas can act as a kind of virus by propagating themselves in culture (even if they are not necessarily true). “Mimetic,” on the other hand, refers more commonly to imitation and mimicry.
- 9 Horkheimer (1947), p. 117.
- 10 Horkheimer and Adorno (2002), p. 115.
- 11 Horkheimer and Adorno (2002), p. 157.
- 12 Horkheimer and Adorno (2002), p. 183.
- 13 Marx, K. (1970). *A Contribution to the Critique of Political Economy* (Maurice Dobb, ed.; translation by S. W. Ryazanskaya). Moscow, Russia: Progress Publishers.
- 14 Marcuse, H. (1960). A Note on Dialectics, (np.). <https://cominsitu.wordpress.com/2017/08/16/a-note-on-dialectics-1960/>.
- 15 Adorno, T. W. (2004). *Negative Dialectics* (translated by E. B. Ashton). New York, NY: Continuum.
- 16 Adorno (2004), pp. 379–380.
- 17 Horkheimer and Adorno (2002), p. 172.
- 18 Adorno (2004), p. 383.
- 19 See introduction by Francis Golffing in Nietzsche, F. (1956). *The Birth of Tragedy and The Genealogy of Morals* (translated by Francis Golffing). New York, NY: Doubleday.
- 20 Nietzsche, F. (1976). *The Portable Nietzsche* (translated by Walter Kaufmann). New York, NY: Viking Press.

- 21 See Steinmetz, K. (2016, Nov. 15). Oxford's Word of the Year for 2016 is "Post-Truth." *Time*: <https://time.com/4572592/oxford-word-of-the-year-2016-post-truth/>
- 22 Bacon, F. (1902). *Novum Organum* (J. Devey, ed.). New York, NY: P. F. Collier.
- 23 Krause, P. (2020, Oct. 8). Francis Bacon: The Idols of Tribe and Market. Discourses on Minerva: <https://minervawisdom.com/2020/10/08/francis-bacon-the-idols-of-tribe-and-market/>
- 24 See Fishcher, S. & Rosenberg, S. (2022, Apr. 5). America's Internet Is Splitting along Party Lines. *Axios*: https://www.axios.com/2022/04/05/americas-internet-splitting-party-lines?utm_source=sendgrid&utm_medium=email&utm_campaign=Newsletters.
- 25 Tornberg, P. (2022, Oct. 10). How Digital Media Drive Affective Polarization through Partisan Sorting. *Proceedings of the National Academies of Sciences of the United States of America*, Vol. 119, No. 42. <https://www.pnas.org/doi/10.1073/pnas.2207159119>
- 26 Marcuse (1960), np.

6

NEWS, THE BATTLE FOR TRUTH, AND THE NETWORKED FUTURE

In Chapter 5, we examined how the Frankfurt School saw the rise of fascism, totalitarianism, authoritarianism, and Nazism during a time of analog communication and conventional warfare. We now apply this critical perspective to our current digital age in which there are similar movements of far-right political extremism and white supremacy, but a fifth generational war – an information war taking place on social media networks. The narratives of cultural politics across digital platforms demand not only critical scholarly attention but also the application of transdisciplinary approaches combining data-driven analysis with humanistic reasoning by the academic community to better understand the complexities of this changing landscape.

The Role of Journalism and News Media

Based on our social network analyses (SNA) of Twitter/X models thus far, we can now posit a new function for the journalism and news media in digitally networked spaces, especially after critically considering the current milieu of post-truth and affective political polarization. Throughout the twentieth century, journalism's mission focused on finding and reporting the truth based on facts. News media were mostly considered objective arbiters of truth in reporting on politics and policy. However, in the twenty-first century, journalists and the news media have been steadily disparaged by former President Trump, along with his MAGA followers and many others on the political right, as “fake news” and the “enemy of the people.”¹ That does not mean though that journalists and

news media have not played a significant role in the current realm of digital discourse and networked politics.

As our data visualizations have shown, the news media nodes have served as structural bridges between the distant (and affective) poles of the networks, between pro and anti-hydroxychloroquine, between cultural politics and science, between discourses in different areas of the world, and perhaps most importantly, between emotion and science. That is, journalists and news media serve as the connective tissue bridging the gap between the fractured chunks of the digital world. The distinction here we suggest that the news media plays a central structural role but not a content-based or epistemological role (as a finder and reporter of truth) in the digital space. While this change may come as a grave disappointment to practitioners and proponents of journalism, we argue that news media still plays a critical central role within online social networks, albeit a structural one. Moreover, it is up to scholars of journalism and media studies to understand this role and suggest to news practitioners how this structural role may be leveraged to better inform digital publics. Our revelation also opens up potential new audiences and areas of influence for the news media. For instance, news outlets and individual journalists can determine the appropriate ratio of truth-telling versus structural bridging between communities. Thus, we are simultaneously affirming the role of journalism in this developing digital space while complicating the conventional understanding about the meaning and significance of its involvement in digital society and politics.

While journalism has played a fairly central role in networked discourse online, it is not likely to be the most significant one in the future. Throughout the course of our research, we have come to the conclusion that we are witnessing the end of an era – the Twitterverse. It was a remarkable 17-year run for the social media platform from 2006 to 2023, before new owner Elon Musk changed its name to “X” as well as significant elements of its business model, content moderation, and accessibility to researchers. The era of Twitter’s significance included the growth of social justice movements, the 2016 and 2020 US presidential elections, as well as the coronavirus pandemic, which was the last global event to take shape on the platform. Looking from the present and forward, we are now in the age of influencers and TikTok. Twitter (now X) has become another form of cable television, which itself is lagging behind the growth of streaming services and original programming. With this in mind, let us take a closer look at the rhetorical strategy of playing “both sides” of a debate, discuss how it worked best among conservative influencers within political discourse on Twitter, and how these types of relativistic arguments posed a unique challenge to the journalistic community. Finally, we will use the

“both sides” controversy to chart a course for how the digital rhetoric we have considered in detail will shape the future of our public discourse in the post-Twitter era.

In *Utramque Partem*: Twisting the Rhetoric of “Both Sides”

In our unsupervised models, one type of rhetorical address initially puzzled us since the users combined multiple and at times contradictory statements in their posts. These confusing posts were not at the margins – we found that some of the most influential conservative figures as measured by centrality in the networks made extensive use of arguing from multiple sides, with the added complexity of deploying multiple rhetorical strategies blending together reason and emotion to create a puzzling logic that engenders confusion and blurs our understanding of truth.

Notably, we found that the users who employed this both sides rhetoric were most often politically conservative journalists and influencers. The most infamous example of this “both sides” move came after the Charlottesville “Unite the Right” rally, with Trump’s claim that “both sides,” including alt-right Christian nationalists and protestors who railed against their Nazi-inspired chants of “blood and soil,” had “good people” in their midst.² Trump’s absurd statement in this instance emblemizes his desire to have it both ways rhetorically, in which he can claim both statements A and B as being true, to avoid choosing a side in controversial issues while giving himself the option to take credit for either claim if politically advantageous.

Upon reflection, we concluded that Trump’s “both sides” move functions as an odd distortion of the most famous rhetorical move among classical orators – arguments made *in utramque partem* – a form of contingent or probabilistic logic that presents multiple possible logical or emotional perspectives that are explored along a spectrum of plausibility. Trump, by contrast, turns the possibility of two arguments into the inclusive union of “both sides” being true at once, resulting in a confusing paradox.

The predominance of the “both sides” maneuver among conservative circles on Twitter surprised us since in classical rhetoric, the ability to formulate arguments *in utramque partem* defined the persuasive mastery of the “true and perfect orator.” These ideal rhetors possessed the power of mind to “speak on both sides about every subject,” in the words of Cicero, or “to credibly discuss” any argument “from two or more points of view,” in a rhetorical strategy called *in utramque partem* (from both sides).³ As Ann Vasaly describes, “the picture of the world that emerged from Ciceronian rhetoric was never simply black or white but was *both* black and white.”⁴ In practical terms, this meant strong statements of the

positive aspects of a place are often balanced at other times and in other speeches by equally strong statements of the negative aspects of the same place are demonstrated. This was to be expected, in light of the varying exigencies of times and subjects, of the training in speaking *in utramque partem* designed to anticipate the arguments of one's opponent, and of the existence of commonplaces providing negative and positive positions on the same subject. This was also to be expected when we keep in mind that the orator was attempting to respond to his audience's prejudices about the world, and when we remember that the Roman audience of the late Republic had no single vision of reality. Like all of us, they were capable of entertaining various, often mutually inconsistent, ideas about places and the people in them.

We should remember, however, that for Cicero, the ability to argue on both sides of a question was not a condemnation of the slippery relativism of truth. Rather, the two-sided rhetorical argumentation was the most rigorous way to "draw out and give shape to some result that may be either true or the nearest possible approximation of the truth."⁵ Cicero presented this dual-sided logic following the teachings of Carneades, who insisted on a model of conditional, probabilistic truth based on rigorous testing of opposing positions to weigh their relative epistemological values.⁶

It was impossible for an individual to decide what was true in an absolute sense; conditional truth, however, could be rationally determined by setting forth arguments on either side of an issue and weighing their comparative validity. Of the two sides, that which appeared more probably true might be assented to as true for all practical purposes. This skeptical calculus was so close to the exercises of rhetorical training that Cicero called this system of philosophy one "that gives birth to fluency in speaking."

*(Para. 2: quae peperit dicendi copiam)*⁷

This probabilistic model of truth grounded in the practices of rhetoric was ubiquitous for centuries, with Joel Altman suggesting that arguments made *in utramque partem* "permeated virtually all areas of intellectual life from the classical world to the early modern era."⁸

Conservative influencers deployed the "both sides" technique in multiple ways. Perhaps surprisingly, one of the deftest practitioners of the technique was the Fox News journalist Geraldo Rivera, who on April 8, 2020, offered a probabilistic range of options to fight COVID-19.

Improving projections for #CoronavirusPandemic deaths probably result of our #SocialDistancingNow & hand washing. But also could

be widespread prescribing/administering #hydroxychloroquine. Despite lack of full trials doctors/patients apparently not waiting because #NothingTolose.

Success against the spread of COVID-19 is “probably (the) result of our #SocialDistancingNow & handwashing.” However, it “also could be widespread prescribing/administering #HCQ.” Rivera presents an array of equally probable success factors, including social distancing, handwashing, and HCQ, and suggests that this coin-flip scenario between outcomes with equal likelihoods is acceptable in his eyes because we have “#Nothingtolose.”

On April 6, 2020, however, Rivera argued for an opposing position, in which HCQ “either works vs #CoronavirusPandemic or it doesn’t. That’s a fact.”

Really don’t like how #Hydroxychloroquine is politicized. It either works vs #CoronavirusPandemic or it doesn’t. That’s a fact question not a political one. Also, we need a steady reassuring voice like #QueenElizabeth to calm & unite us. Let’s put politics in the freezer for awhile.

In the first instance, Rivera presents three equally probable solutions in a dialectical suspension, where we must arrest our sense of certainty because we have “#Nothingtolose.” His statement from two days prior insists by contrast on a more rigid binary logic, where HCQ’s efficacy is a “fact” and it “either works” or “it doesn’t,” in stark black or white terms.

#Hydroxychloroquine May not work vs #Coronavirus, but so many have safely used it for other reasons that @realDonaldTrump has every right to use it if he thinks it makes him feel better or safer—Untangle your bunched breeches. It may not work 1 but probably won’t kill him.

Adding to the complexity of his position, on May 19, 2020, Rivera veers to one of the alternatives posed between “it either works ... or it doesn’t” by conceding that HCQ “may not work vs #Coronavirus,” but Donald Trump has “every right to use it,” since “it may not work, but it probably won’t kill him.” Geraldo’s juggling of three probabilistic scenarios – any three could work; either it works, or it doesn’t; it may not work but who cares – corresponds to Cicero’s definition of *in utramque partem* as a methodology for presenting a contingent definition of truth.

We observed a different mode of 360-degree rhetorical argumentation from another conservative journalist, Laura Ingraham, who offers a

sustained meditation on vaccines. On February 19, 2020, she presents a flatly neutral description of COVID-19 research efforts: “Tulane center to begin research for coronavirus vaccine.” One week later, on February 29, she uses a comparative strategy, pointing out that the lack of vaccines for the common cold and for HIV may imply low odds for the development of a successful COVID vaccine.

I want to remind everyone that we don’t have a vaccine for the common cold virus nor do we have a vaccine for HIV yet. Getting everyone’s hopes up for a vaccine may be unwise.

She cautions that “getting everyone’s hopes up for a vaccine may be unwise” since “we don’t have a vaccine for the common cold virus nor do we have a vaccine for HIV yet.” On July 1, 2020, Ingraham voices probabilistic doubt, by describing how the FDA “will require (the) COVID-19 vaccine to be at least 50 percent more effective than placebo,” and by appending a “hmm” to voice skepticism that the statistical threshold will be met.

Flipping the 50% probability on its head as a critique, she cites Moderna’s data that the “vaccine induced adverse reactions in ‘more than half’ of trial participants.” She shifts from a 50% quantitative threshold to antibodies that are “far preferable to a vaccine for many,” veering from equivalence between three vaccines to a 50% calculus to a “far preferable” majority rejecting the vaccine for another solution altogether based on antibodies. Finally, on June 3, 2020, she invokes the wide-spread demonstrations against the murder of George Floyd in May 2020 as a way to move hypothetically away from vaccines in an outright fashion – “who needs a vaccine and lockdowns since they’re conceding that massive social unrest cures the coronavirus?” Ingraham’s multiple rhetorical strategies to present a range of probabilistic scenarios about the vaccine conclude with a blatant mocking rejection, offered in response to the racial upheaval of summer 2020.

This combination of data-driven probabilities mingled with inflammatory racial gestures was a prominent tactic for framing arguments *in utramque partem* among conservative influencers. For example, Matt Walsh uses the tautology of \$14M = \$14M in a transitive logic to heap scorn on “the author of this article,” cited in his post as “equivalent to an idiot.”

No, 14 million dollars to develop a vaccine is equivalent to 14 million dollars to develop a vaccine. And the author of this article is equivalent to an idiot.

Here the mathematical equivalence of two numerical values slips into an insulting equation of author = idiot in a faulty logic that nevertheless bites rhetorically. From an entirely different angle, Walsh uses a list of rhetorical questions in a *quaestio* strategy to critique the COVID-19 vaccine.

January 31, 2020: Great point. Personally I've always felt that the polio vaccine is problematic because it was invented by a cisgendered white man.

March 3, 2020: If there were a vaccine for Coronavirus, there would be a not insignificant number of people who wouldn't get it.

April 4, 2020: If we aren't staying locked away until a vaccine is ready, then won't the virus come surging back whenever we end the lock downs anyway? Aren't we destroying the economy not to avoid deaths but merely to delay some of them temporarily?

April 11, 2020: This is insane fear mongering. Also even if it's true (it isn't), it would still be basically irrelevant.

May 12, 2020: Question for the "stay locked down until a vaccine" crowd: what if there's never a vaccine? Would you stay locked inside for the rest of your mortal life? If not, at what point would you decide that you've been hiding long enough and you might as well just get back to living?

He makes the same point in an emotional questioning approach that accuses those who refuse "to come out of your house at some point" of "insane fear mongering." Where the *quaestio* method uses lines of questioning to probe his audience through rational interrogation, his April 11 post shifts directions and employs instead accusations of inflammatory emotions – "insane fear mongering" – to target the same audience as those "locked away" indoors reflecting a strategy of blame induced by a series of open-ended questions. He concludes by igniting a racialized response through the invocation of historical evidence, ironically voicing concern that the "polio vaccine is problematic," despite its universal efficacy, for reasons rooted in identity politics – "because it was invented by a cisgender white man."

Walsh's sly deployment in a single post of historical evidence, inferred comparison of two vaccines, and inflammatory language touching upon

the raw nerves of gender and race is frequently deployed by other conservative figures with much less subtlety.

Reverend Randy Jones goes into great detail on end times prophecy that eerily match up with today's events. Including @BillGates microchip vaccine, one world government & currency. Very compelling! #COVID19 #coronavirus

For example, the former baseball player Aubrey Huff ostensibly cites historical evidence in the form of a bizarre prophecy linking the vaccine to Randy Jones' prophecy linking microchips, vaccination, Bill Gates, one world government, and currency in a single breath as a totalizing conspiracy theory that somehow encompasses the entire world and the end times.

The cumulative effect of the *in utramque partem* rhetorical strategy is at once destabilizing and confusing. The central conservative influencers in our networks juggle multiple perspectives and lines of argument in a dialectical suspension of seemingly paradoxical or contradictory positions – rational and emotional, probable and outrageous, pro and con – to create a 360-degree effect from all sides that does not converge into a cohesive synthetic truth. Rather, the *in utramque partem* rhetoric produces a prismatic sense of meaning that positions the audience in the uncomfortable position of absorbing multiple perspectives at once, inducing a sense of what might be described as epistemological vertigo.

Combating “Both Sides”: Learning from the Lessons of 2016

The strongest presence in the network models countering the destabilizing effect of the largely conservative “both sides” arguments was the news, primarily through fact checks that attempted to pierce through the fog of confusion. The news fact checks did not single out any ideological silo. Rather, the news served as a powerful center of gravity for truth-telling in our networks through their sheer reach. In the overall COVID-19 network, the news constituted 33 of the top 50 accounts, or 66%, as measured by betweenness centrality. The news nodes truly reached all subcommunities in the network and represented one of the only node types that pierced through siloed echo chambers to elicit interactions and reactions from a nearly universal audience (Figures 6.1–6.5). The only other super-user in the network with this extent of cross-cutting influence was unsurprisingly @realDonaldTrump.

The news fact-checking and context-setting strategies reveal the extent to which the journalistic community has updated its playbook for

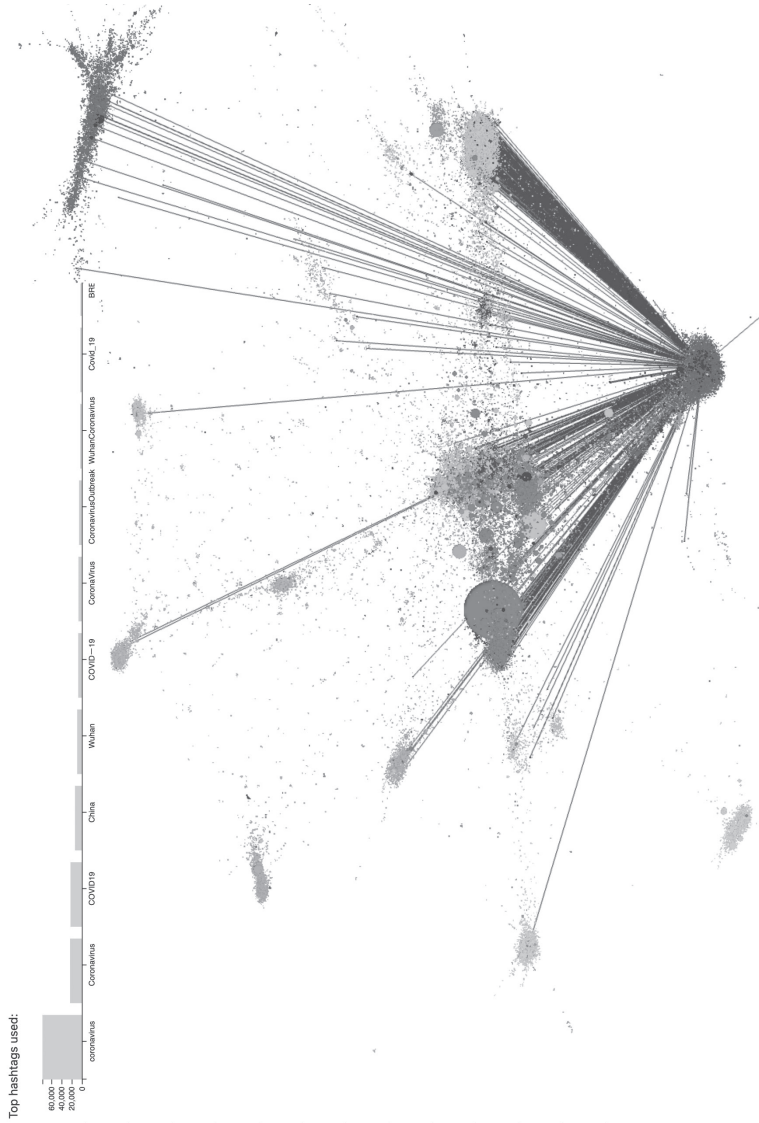


FIGURE 6.1 Donald Trump COVID-19 network.

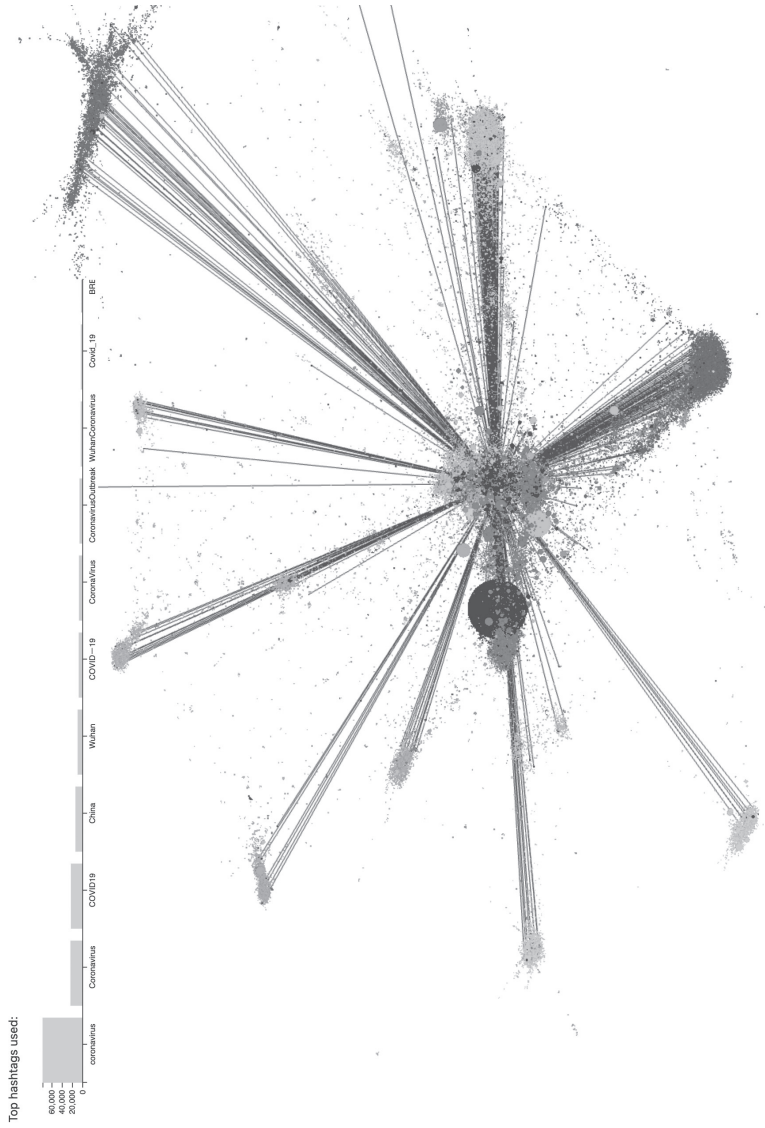


FIGURE 6.2 Reuters COVID-19 network.

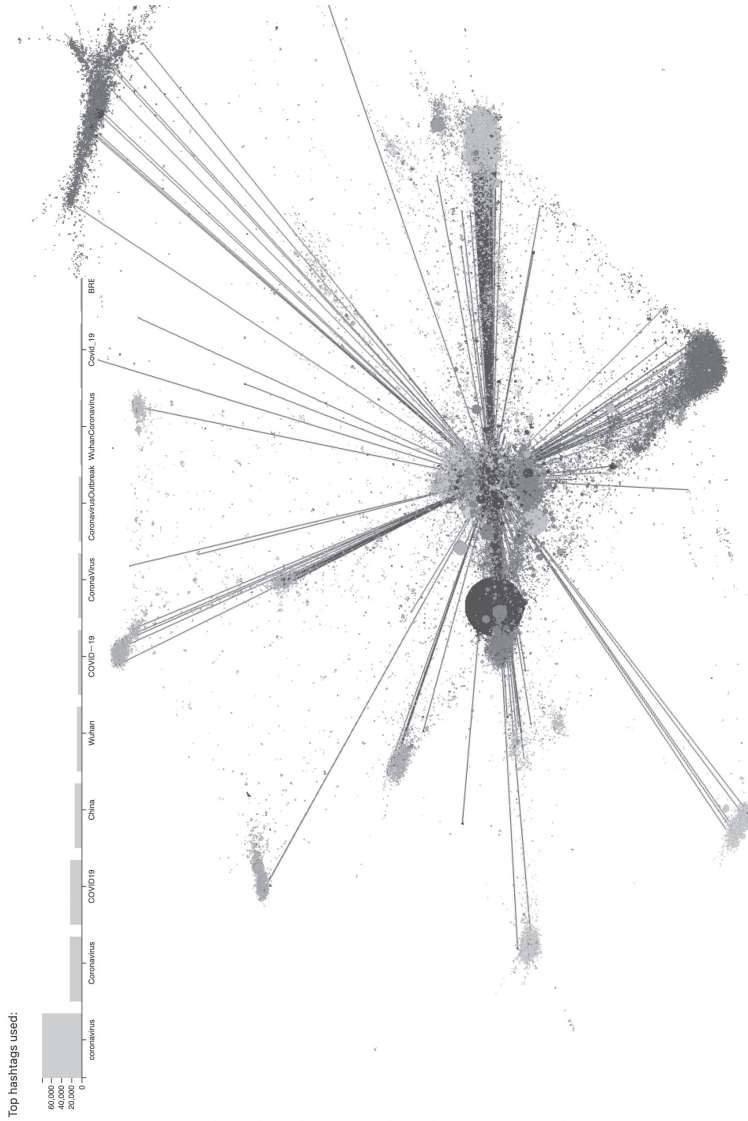


FIGURE 6.3 Bloomberg COVID-19 network.

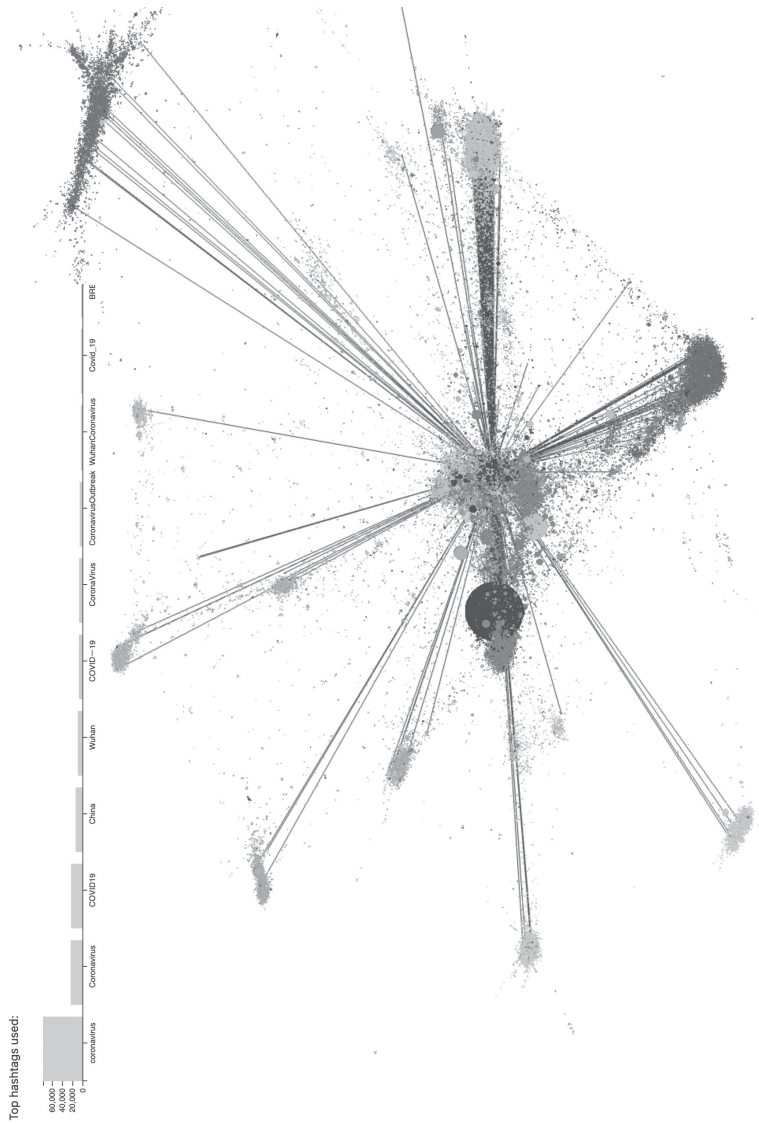


FIGURE 6.4 New York Times COVID-19 network.

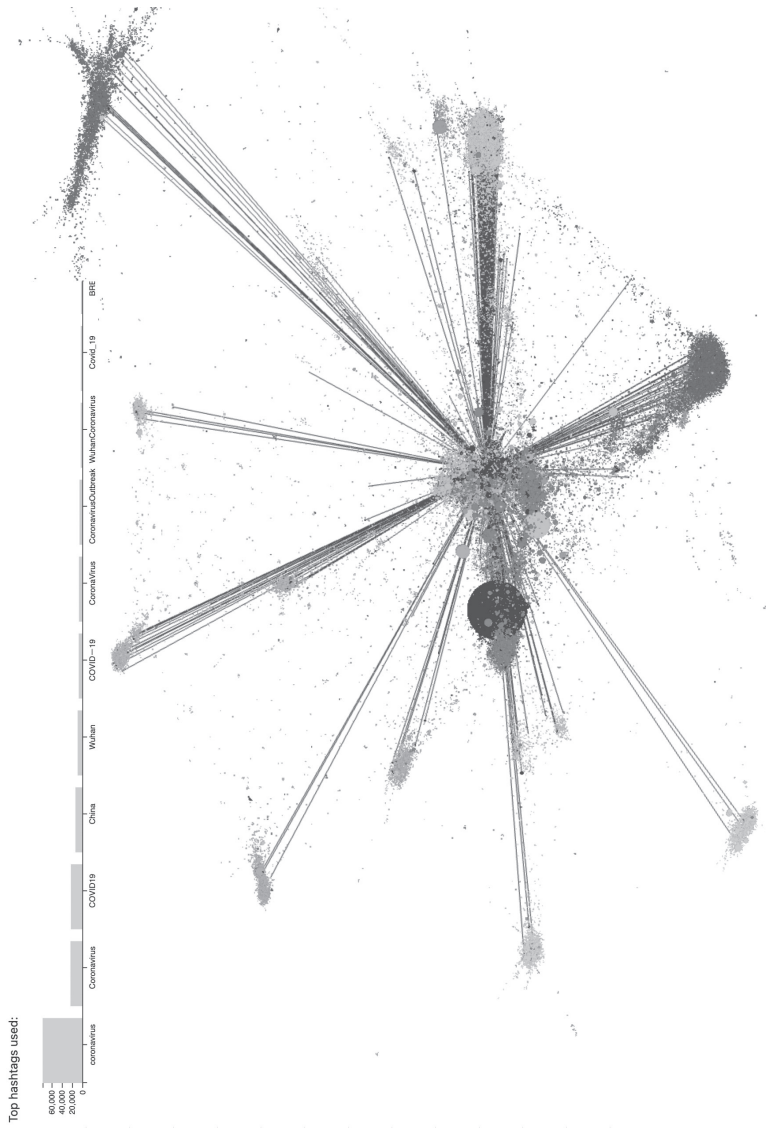


FIGURE 6.5 CNN COVID-19 network.

combating misinformation in the post-truth era. We can only perceive why the range of validation mechanisms news outlets adopted in the COVID networks are remarkable when we compare these fact checks with the weak position of the news in the 2016 presidential election, when the press was caught flat footed in how to cover Donald Trump's daily barrage of lies. One dramatic example of this journalistic struggle can be represented in a Twitter network model from the first 2016 presidential debate between Trump and Hillary Clinton.

Figures 6.6 and 6.7 represent the Twitter network from the 2016 US election season, specifically from September 25 to 27 (presidential debate) and November 6 to 8 (election day). We can immediately observe that the two electoral adversaries, Donald Trump and Hillary Clinton, dominate the network in a head-to-head struggle.

Here we can see the major protagonists of the contest, Trump and Clinton, as the centers of gravity in the network, by assuming the most central positions measured by both degree- and betweenness-centrality, and with the most user engagement measured by the respective node radii, which dwarf any other nodes in the model. In the debate network, however, we find Trump supporters using the rhetorical levers of praise and blame to exalt Trump and excoriate Clinton. The galaxy of nodes linked to Trump's content boosts his posts via the structural means of network engagement, including passive interactions such as likes and retweets, but also with more direct replies and comments that reflect the praising strategies we have already examined in relation to COVID-19. Remarkably, the majority of users attached to Hillary Clinton's node are also right-wing supporters of Trump, who hijack the engagement system central to Twitter's network structure as a way to overwhelm Hillary with attacks and a rhetoric of blame, much like a rhetorical virus that attacks and infects the pro-Clinton community with antagonistic language and trolling in comments directly responding to her posts.

By contrast, news outlets on the left, right, and center all struggle to even appear on the network, much less exert an influence on the conversation. The only two news accounts that register on the network are Fox News and CNN, and overall, the news only represents 4% of accounts in the top 50 users during the 2016 election. The news struggles in this 2016 election network, with surprisingly low levels of engagement and centrality measurements. As the low level of user engagement suggests, the news struggled to counteract the overwhelming surge of antagonistic rhetoric and inflammatory content-driving clicks employed by Trump's supporters, who have more fully grasped and mastered the ways to game the network system through repetitive posts aimed at flooding the discourse with their message. For example, we can see Trump supporters hijack Apple's iPhone

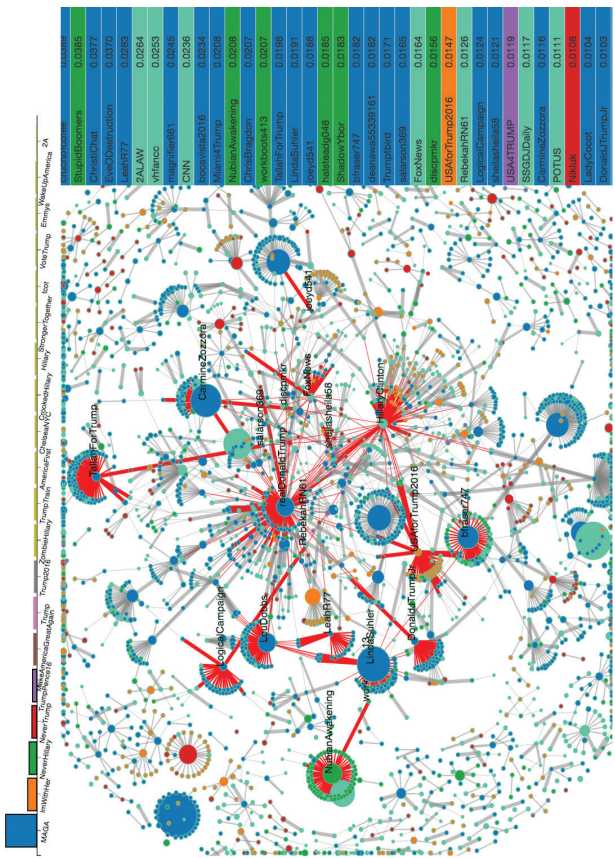


FIGURE 6.6 Trump 2016 election network.

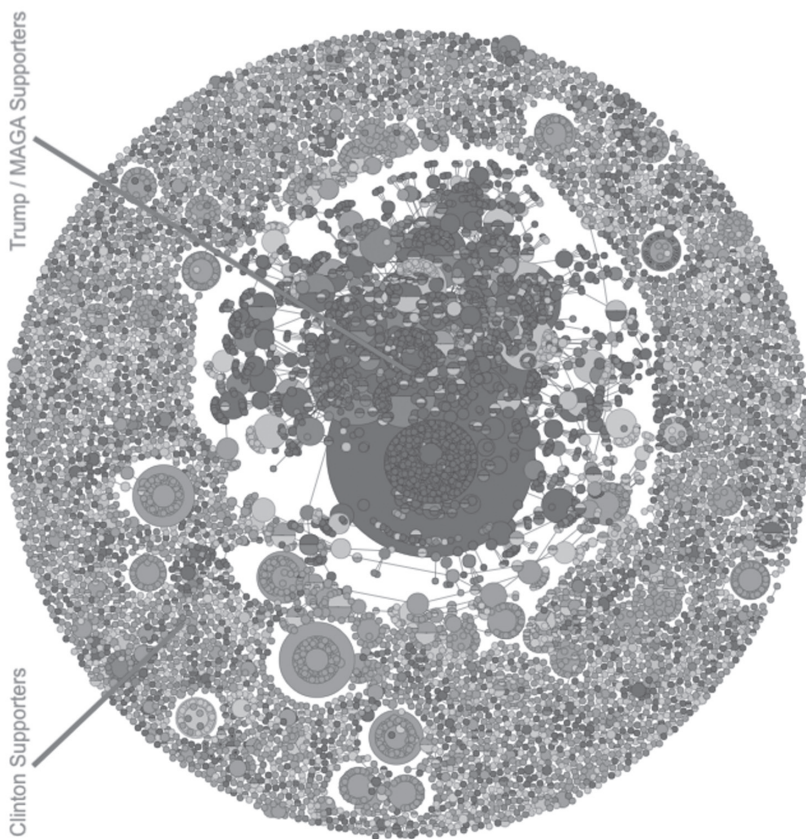


FIGURE 6.7 2016 election network.

7 release to drive engagement and boost the visibility of their posts, from a now defunct account.

Rafah Matko: #MakeAmericaGreatAgain #wallpapers! #iPhone7 #iPhone7Plus #iPhone #AppleEvent #Apple

In 2016, the MAGA community on Twitter understood that the behavioral incentive system installed by the social media companies rewards network interactions, as measured by clicks on links, likes, retweets, comments, and follows. As a result, the MAGA community on Twitter creates a densely interconnected central subnetwork that dominates the election conversation in Figure 6.7 as a continent of nodes, composed of Trump-supporting users. By contrast, Clinton supporters scattered on the margins of the model make up a large unconnected surrounding periphery that represents a substantial population of the Twitter community, but do not which engage sufficiently in network building engagement and thus do not coalesce into any interconnected network structure to speak of.

By the outbreak of the COVID-19 pandemic in 2020, however, the news has altered its strategy in response to the right-wing subversion of the social network incentive structure that rewards click-based engagement and inflammatory content rather than accuracy or precision. Although with COVID-19, the terms of the debate have shifted from the presidential contest to the controversies surrounding vaccines, face-masks, social distancing, and HCQ, the network and rhetorical strategies employed have remained largely consistent. The major change we observed in the 2020 models is that journalism has updated its playbook to respond to disinformation, with the two new rhetorical strategies we classified as being epistemological and educational – rapid-fire fact checks and deeper contextual explanation within Twitter posts – beyond simple passive links to external sources that require extra effort for users to access.

In the most literal examples, we find outlets such as the Agence France-Presse (AFP) flagging fact-checking directly. AFP created a separate Twitter handle – @AFPFactCheck – with the exclusive responsibility of offering real-time fact-checking, which follows a simple, formulaic logic with a disputed claim, followed immediately by a graphical check mark or X, and a “true” or “false” label.

@AFPFactCheck: Australian government data shows HPV vaccine caused ‘cancer epidemic’? X False - No correlation between HPV vaccine

AFP explains its reasoning of truth or falsity with some evidence or rationale to substantiate their validation. The UK's Guardian goes one step further by exploiting the network engagement structure through verbatim repetitions of the same fact check to flood users' content feeds on four days in 2020 – March 9, March 10, April 5, and April 7, 2020 – all with links to “COVID-19 Facts Checked.”

March 9: Can a face mask stop coronavirus? Covid-19 facts checked.

March 10: Can a face mask stop coronavirus? Covid-19 facts checked.

April 5: Can a face mask stop coronavirus? Covid-19 facts checked.

April 7: Can a face mask protect me from coronavirus? Covid-19 myths busted.

A second type of fact check unfolds as explanatory context in evaluating false claims, rather than a formulaic true/false logic.

President Trump inaccurately says an AIDS vaccine exists while predicting a coronavirus vaccine by the end of 2020, and falsely accuses the Obama administration of making no effort to stop abusive policing, an APFactCheck finds.

For example, @APFactCheck flags how “Trump inaccurately says an AIDS vaccine exists,” and that he “falsely accuses Obama administration of making no effort to stop abusive policing, an #APFactCheck finds.” Appending “inaccurately” and “falsely” in citing Trump builds a fact-checking mechanism into a standard, flat news summary that offers a lede and a link to the full article.

CNN provides another fact-checking strategy on April 11, 2020, in the form of aggregated verification, which accumulates false statements made over time and evaluates their accuracy en masse: “Over the past several weeks, President Trump has made several erroneous statements.... These are the facts.”

Over the past few weeks, President Trump has made several erroneous statements relating to hydroxychloroquine studies. These are the facts.

The fact checks and lede summaries represent a significant shift for news organizations from 2016, who struggled to balance how best to incorporate rhetorical persuasion strategies employed extensively on social

networks, but in a manner that aligns with journalism's neutral and truth-telling mission. In essence, the dilemma for journalists has been to identify a point of equilibrium where didactic fact checks and instructive context within posts can offer validation and accuracy to public debates without slipping into overly editorial commentary or opinion. The evolution of journalism in the rhetorical strategies of digital networks plays an important role in defining a form of "negative dialectics" shaping our current public discourse, where the news must identify a new role for truth-tellers in the post-truth era.

Zooming out to the macroscopic scale, we can see the effect of the news's evolving network strategy. When compared to the 2016 networks above, where the news was nearly invisible amid the rise of MAGA, the overall COVID-19 network reveals a different picture altogether (Figure 6.8).

Here, the news nodes stand squarely at the heart of the network, connecting many diverse clusters across the network, performing a bridging or information broker function that no other cluster can fulfill.⁹ However, beyond serving as an information hub, the central news cluster has the additional role in the network of attracting a mixed coalition of users from across the distinct subcommunities in the COVID-19 network that otherwise do not come into contact (Figure 6.9).

The central news core mingles nodes from all of the peripheral clusters organized by language, geography, and partisan leanings. The labeled "spokes" connecting the news "hub" to the individual clusters on the periphery in the figure demonstrate the power of the news to draw in users from distinct and at times opposing viewpoints into a networked coalition where users from across the ideological and global spectrum engage with news posts.

Meanwhile, the political left has not necessarily gotten its act together in the networked space; but news media has completely transformed its place in our digital society by providing a main network hub connecting disparate communities and silos. The news media is now an information broker and the connective tissue of a fragile coalition in our networked era. It is a new and emerging role that we are only beginning to understand. The networked role of news exemplifies how the network has reshaped public discourse and the mechanics of information transmission in the digital era.

Networked Structure: Inaugurating a New Reality for Digital Politics

At a macro-level and from a 360-degree perspective, networked politics has become more complicated than truth versus post-truth, "both sides" of a single argument, or fact checks to counteract disinformation. The

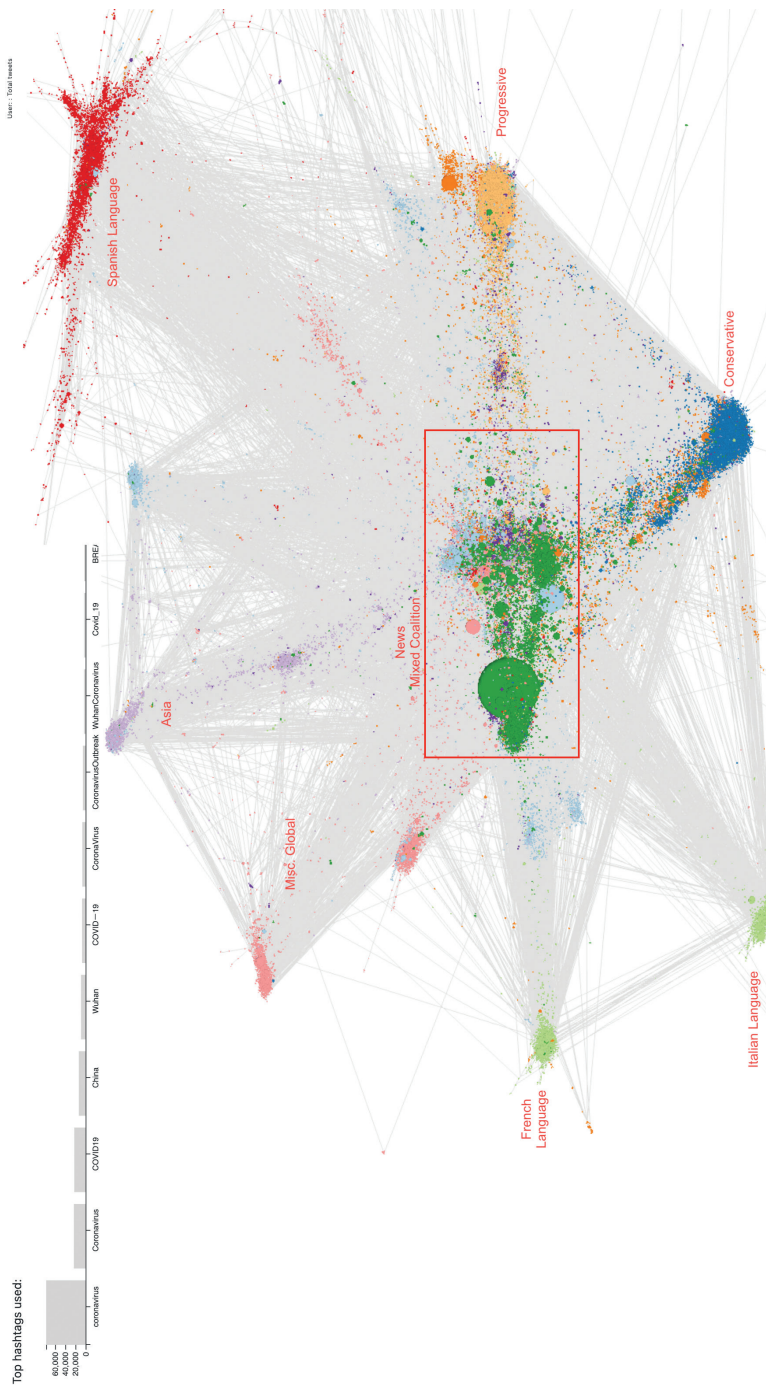


FIGURE 6.8 Overall COVID-19 network.

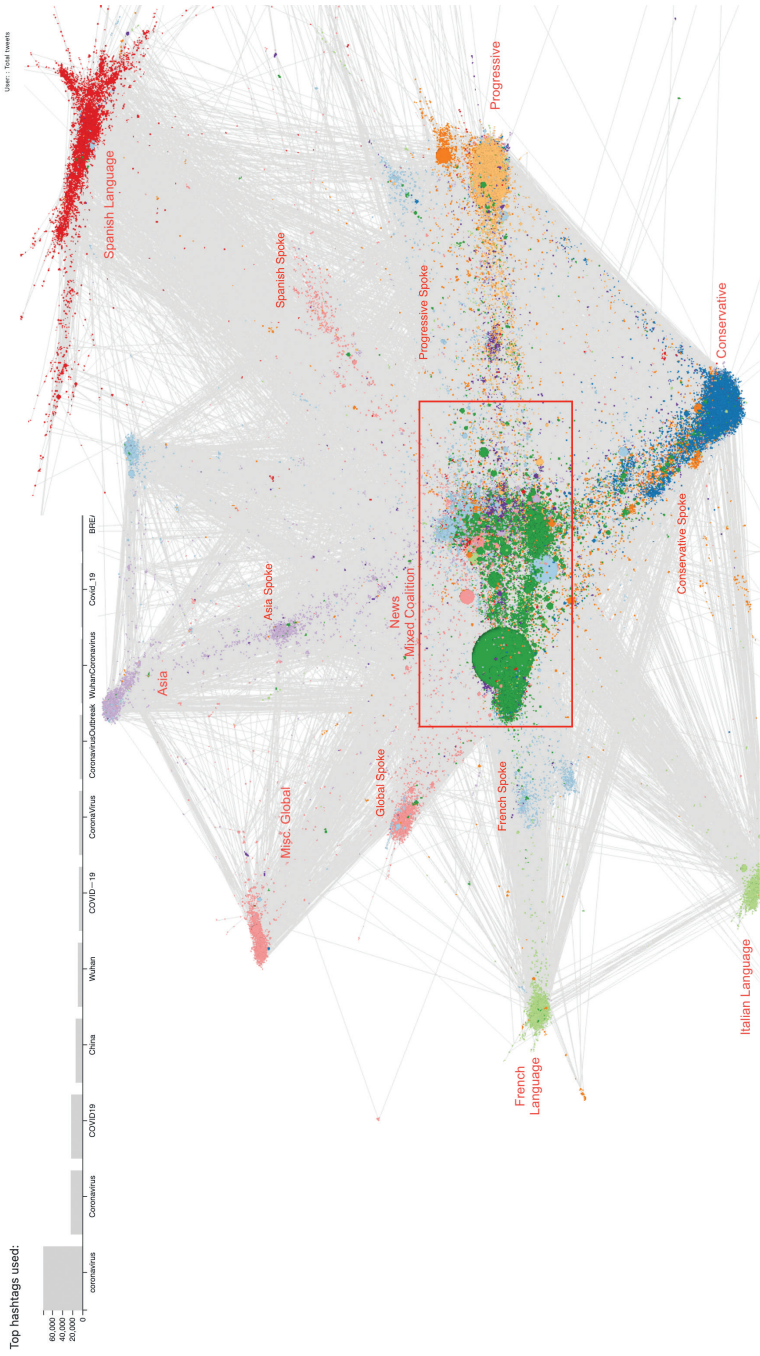


FIGURE 6.9 Overall COVID-19 network, news hub and spokes.

future of digital discourse shaping our political reality is structural rather than epistemological. Rather, the more practical question that humanists, social scientists, and data scientists can begin to ask is: how can we build and sustain networked coalitions of disparate silos and communities, which existed in temporary and ephemeral form during the COVID-19 outbreak?

Consider the ineffectiveness of the political left in countering fake news, misinformation, disinformation, and memetic warfare that took place on social networks during the 2016 presidential election cycle. At the same time, the political right was able to effectively game the system by exploiting the business model of social media platforms, which includes encoding for amplification and delivery of content through engagement (e.g., clicks, retweets, likes, comments, and followers). This networked body politic sets new conditions for the rhetorical effects that we identified in this book.

Classical rhetoric used democratic oratory in front of the polis, a deliberative political body as imagined in origin and motivated by the persuasive powers of rhetoric to appeal to the audience's rational faculty to choose between plausible judgments and to inflame passions to drive the audience's discernments toward a particular desired outcome – either a thumbs up, or down. We see this oratorical ideal in Milton's *Areopagitica*,¹⁰ Hobbes' *Leviathan*,¹¹ and Thomas Jefferson's extensive use of diacritical marks signaling moments of dramatic pauses, flourishes, and accents mimicking the Ciceronian style of oratory.¹²

However, social media has created a chaotic polis in digital form that Trump, MAGA, the right, and increasingly the entire political spectrum have adopted. In this realm of networked politics, rhetorical persuasion, which both appeals to reason and inflames passions, takes shape in the form of posts that aim to compel the disorganized public to vote in a crude format that is closer to the gladiatorial blood sport of classical Rome. When considering the difference between reason and emotion within social media networks, it appears that journalists and the political left mainly appeal to reason when engaged in discourse by using science, facts, and expertise to support their arguments. However, the political right relies heavily on emotionally based claims, and algorithms tend to reward emotional content because emotions drive engagement, which define the business models of digital platforms. With the financial incentives for online platforms to continue to drive engagement, this technological framework is not likely to change anytime soon. Therefore, progressives, journalists, and scholars must adjust to a networked politics that emerges in the complex interplay of reason and emotion.

We are left with a distortion of enlightenment ideals, or new nihilistic enlightenment in networked form. The political landscape looks

distinctly different in this new digital reality as algorithms will help feed particular narratives of rage, not necessarily out of partisan interests, but capitalistic ones – to keep the user engaged. Building from Chapter 2, we must evolve the corporeal metaphors of the “body politic,” which have historically dominated how we define our higher-order political organizations, into a new structure – the network – that more accurately reflects how technology has reshaped the interactions shaping our society into a distributed grid of information mediated by clicks, likes, comments, and followers. The political right, which managed to game this system during the 2016 election cycle, boasts its own social media platforms (e.g., Truth Social, Telegram, etc.) that will continue to stoke these inflammatory narratives. By contrast, the political left must adapt to this new networked reality. With Twitter, now turned to X, and BlueSky, Threads, Tribel, and other social media platforms on the margins, the political left is on the verge of being left network-less in the age of networks. A surprising finding of our book has been a twist on the well-documented story that the news business model has come under pressure in the era of social media. However, our findings unexpectedly demonstrated that the news has emerged as the beating structural heart of our digital networks by connecting information and ideological silos that otherwise have no interaction. The emergent network bridge and information hub role for the news has provided it with a new dimension of relevance and importance, which journalists must acknowledge, understand, and embrace. Overall, we emerge from the era of Twitter at a crossroads for news and progressives, gleaned from the lessons learned in the laboratory of the social media platform. The political landscape looks distinctly different as we enter this new digital reality, where whoever creates a more connected network sets the direction for our collective future.

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INDEX

Pages in *italics* represent figures in the text.

- accounts, Twitter: @AFPFactCheck 127–128; @BabylonBee 92; @BantheBBC 93; @BillGates 118; @BorisJohnson 79, 93; @BreitbartNews 79; @CDCgov 6; @CEPIVaccines 79; @ConservBlue2020 89; @DrDenaGrayson 83; @gatesfoundation 76; @Gavi 79; @GlamazonJay 85; @InevitableET 85; @JamesTodaroMD 76; @JeremyFaust 90; @JosuaPotash 89; @KyleGriffin1 75; @LotusOak2 78; @MarkDice 78–79; @MayoClinic 83; @MichaelCoudrey 76; @MichaelPDeacon 85; @narendramodi 76; @NIAIDnews 6; @OMGno2Trump 90; @O_Rips 93; @realDonaldTrump 5–6, 71–72, 75, 83, 115; @RudyGiuliani 78–79; @sexsparenting 89; @TedLieu 90; @vicksiern 83; @WDunlap 78
- actor-network-theory (ANT) 8, 32, 36–37, 68–69
- Adams, John 21, 23, 25
- Adams, John Quincy 23, 25
- Adorno, Theodor 101; culture industries 103; *Dialectic of Enlightenment* 9, 102; megalomania/paranoia 104; moral defamation of people 105
- affective polarization 16–18, 60, 103–105, 108–109
- affective politics 17–18, 107–109
- Agence France-Presse (AFP) 127–128
- Ahnert, Ruth 37
- algorithms 18, 40–42, 104, 107, 109, 132–133
- Altman, Joel 114
- amplificatio* 32, 75
- Andrew W. Mellon Foundation 5
- antifa 107–108
- anti-HCQ cluster 54, 73, 112
- anti-masking 50, 88, 91–92
- anti-Semitism 103
- anti-vaccine community 15, 72–73, 78–79, 85
- Aristotle 4, 21–25, 39, 64, 70; *Rhetoric*, *Poetics*, *Politics*, and *Nicomachean Ethics* 23
- authoritarianism 16, 111
- azithromycin 76, 83
- Bacon, Francis 20, 107–108
- Barabási, A. L. 33, 35
- barbarism 9, 102
- Biden, Joe 80–82
- biological organism 7, 13

- Bitzer, Lloyd 19
 black communities, police violence on
 84–85, 89
 Black Lives Matter (BLM) movement
 85, 107–108
 BlueSky 133
 body politic 7, 13, 15, 21–22, 132–133;
 reason and emotion in shaping 23–26
 Bongino, Dan 83–84
 Bradshaw, Jonathan 32
 Brady, W. J. 38, 65
 Braun, Mike 19
- Candice Owens 85, 87
 Carlson, Tucker 18–19
 Cassidy, Bill 72
 catalyst model 4–5
 Centers for Disease Control and
 Prevention 6
 China 50, 70–71, 86–87, 90–91
 Cicero 4, 20–21, 24–25, 39, 64, 113–115
 civic discourse i, 3–4, 8, 16
 civic virtue 24
 classical rhetoric 19–23, 32, 82, 113, 132
 Clinton, Hillary 124, 127
 CNN 18, 124, 128; COVID-19
 network 123
 Communications Decency Act of
 1996, Section 230 of 15
 community detection 40–42
 conservative clusters (dark green) 46,
 50, 60
 controversy mapping 69
copia 82–84
 Corbett, Edward 25
 CoronaVirus Doctor 78
 coronavirus hate crime, victim of 91
 COVID-19 pandemic 6, 15, 39–40,
 68–70; Americans died from 75–76;
 Bloomberg network 121; citing
 data 75–79; CNN network 123;
 conspiracy theories 7, 15, 60, 84;
 COVID-19 Twitter dataset 40;
 Donald Trump network 119; face
 masks/face mask network 40, 50,
 53, 54, 55, 56, 68, 70, 75–76, 88–94,
 127–128; handwashing network
 44, 45, 46, 47, 48, 68, 115; hub
 and spoke structure 49, 50, 54, 60,
 131; hydroxychloroquine (HCQ)
 network 5, 15, 40, 54, 57, 58,
 59, 60, 64, 68, 72–74, 76; overall
 COVID-19 network 43, 46, 50,
 51, 52, 68, 130, 131; public health
 crisis 31–32, 70, 76; Reuters
 network 120; social distancing
 31, 44, 115, 127; vaccines/vaccine
 network 50, 54, 60, 61, 62, 63, 68,
 72, 78–82, 86–90, 93, 115–117
 critical theory I, 3, 6, 8, 16
 cult of emotions 103
 cultural politics 7, 11, 15–16, 107,
 111–112
 culture industries 103
 cyberspace 14–15
- d3.js 41
 The Daily Beast 92
 data visualization technique 5–6, 9,
 18, 103, 112
 Dawkins, Richard, *The Selfish Gene*
 109n8
 DeAnna4Congress 74
 democratic self-governance i, 3, 8, 11,
 13, 16
 Democrats 14, 72, 83, 87
 descriptive textual analysis 8, 69
 Dewey, John, *Eclipse of Reason* 101
 digital discourse 6, 9, 15, 39, 95, 101,
 112, 132
 digital ethnography 32
 digital humanities I, 7–8, 31
 digital platform design 38, 65
 digital politics 4, 9, 16–17, 105, 129,
 132–133
 digital rhetoric 8, 20, 32, 113
 Digital Scholarship Center (DSC) 4
 digital tribalism 107
 Ding, Eric 76, 79
 disinformation 6, 15, 25–26, 84, 104,
 127, 129, 132
 Durnova, A., post-factual politics 17
- echo chambers 44, 46, 64, 118
 Elasticsearch database 40
 Ellis, Jenna 87
 emotions 23–26, 32, 39, 70–72,
 87–88, 95, 101–103, 106–107, 109,
 112, 132; cult of emotions 103;
 emotional appeals i, 3–4, 8, 16, 23,
 64, 84; emotional language 38–65;
 emotional rhetoric 23, 64, 84, 87
 Enlightenment 25, 102, 105, 132
 enumeration 80–82

- epideixis* (praise and blame) 22, 74
 epistemology/epistemological 18, 95, 107, 112, 118, 127, 132
 Erasmus, Desiderius 82
 ethnography/ethnographic method 32, 68–69
 Eyman, Douglas 20, 32

 Facebook 15, 37
 fake news 3, 18, 104, 111, 132
 false comparisons 88–90, 101
 fascism 9, 105, 111
 Fauci, Anthony 86
 Federal Reserve 75
 feedback loops 18, 38–39, 65
 Fliegelman, Jay 21
 Floyd, George, murder of 85, 116
 flu pandemic (1918) 76; facemask photo of 77
 Food and Drug Administration (FDA) 78–80, 83, 86, 116
 Ford, Christine Blasey 74
 Fox News 15, 18–19, 124
 Frankfurt School 6, 9, 101, 111

 Gates, Bill 79–80, 85–87, 93–94, 118
 Gates, Melinda 85
 Gilead Sciences pharmaceutical company 89
 global clusters 46, 60
 Golden Girls television show 85
 Granovetter, Mark, “Strength of Weak Ties” 33
 Griffin, Kyle 76

 handwashing network 44, 45, 46, 47, 48, 115
 hashtags, Twitter 5–6, 78;
 #CoronavirusPandemic 115;
 #Coronavirus scare in China 91;
 #COVID-19 FACE MASK FARCE 94;
 #Facemask #WearAMask 93;
 #GoTeamGo 84; #HCQ 115;
 #Hydroxychloroquine 76, 83, 115;
 #jailBillGates 87; #MAGA 9, 11;
 #Nothingtolose 115; #Science 93;
 #SocialDistancingNow & handwashing 115;
 #VaccineFailure 78
 herd immunity 78
 Hitler, Adolf 103
 Hobbes, T. 25; *Leviathan* 7, 13, 132
 Homans, George 33

 Horkheimer, Max 101, 103;
 culture industries 103; *Dialectic of Enlightenment* 9, 102;
 megalomania/paranoia 104
 Huff, Aubrey 118
 humanistic reasoning 4, 11, 111
 humanities 4–8, 31
 humor/humorous posts 64, 89–90, 93–95, 101, 103
 hybrid approach 42, 64–65, 68–69
 hydroxychloroquine (HCQ) 5, 15, 40, 54, 57, 58, 59, 60, 64, 68, 72–74, 76, 78–79, 83–84, 87, 90, 92–94, 101, 115, 127

 Ingraham, Laura 115–116
 Instagram 37
in utramque partem (arguing from both sides) 22, 113–118
 Italian Renaissance 70
 Ivermectin 7, 15

 January 6th insurrection (2021) i, 3, 8, 19, 70
 Jefferson, Thomas 21–23, 25, 64, 132
 Jennings, Helen Hall 33
 Johnson, Boris 93
 Jones, Alex 15, 26n12
 Jones, Randy 118
 journalism 6–7, 14, 18, 107, 111–113, 127, 129

 Kahn, Victoria 21, 70
 Kerford, G. R. 20
 Kirk, Charlie 86, 89
 knowledge 17, 106–107

 language: emotional language 38–65;
 NLP (*see* natural language processing (NLP)); rational language 39, 65, 72, 101;
 of reason and logical proof 72–75
 Lanham, Richard 20
 Latour, Bruno 69
 liberal media 18
 linguistic analysis method 69
 Locke, John 7, 21, 25
logos 21

 Machiavelli 4, 21–22, 25, 70
 machine learning 4–6, 31, 37–42, 68; and SNA 38–65

- MAGA movement 9, 11, 16, 105–108, 111, 127, 129, 132
- Marcuse, Herbert 101, 105, 109
- Marx, Karl, base and superstructure 9, 102, 104
- McIntyre, L. 17
- medicare 107
- memetic 109n8
- Mike Brown shooting (2014) 5
- Milton, John, *Areopagitica* 132
- mimetic 109n8
- misinformation 3, 7–8, 15, 25–26, 104, 107, 124, 132
- mixed central cluster 46, 50–51
- mob democracy 7
- Moreno, Jacob 33
- Morgan, Piers 88, 94
- MSNBC 18
- Musk, Elon 3, 11, 31, 112
- National Institute of Allergy and Infectious Diseases 6
- natural language processing (NLP) 4–5, 8, 25, 37, 39, 42, 64–65, 68–69
- Nazis/Nazism 101–103, 105, 111, 113
- NBC 18
- negative dialectics in social media 9, 101, 105, 108–109, 129
- network analysis techniques 4, 6, 8, 11, 32–33, 36, 69
- networked subjectivity 18
- network interactions 42, 127
- network-mediated social discourse 11
- network science 32–33, 35–38
- network visualization 5, 40
- Newsmax 18
- news media: in digital spaces 18–19; role of 111–113
- New York Post* 91
- New York Times* 18; COVID-19 network 122
- Nietzsche, F. 105–106; *Genealogy of Morals* 17; resentment 102, 106
- Noem, Kristi 74
- Obama, Barack 70–71, 75, 128
- One America News Network (OANN) news organization 72–74
- Owens, Candice 87
- pathos* 21
- peripheral clusters 46, 50, 54, 129
- phase transitions 36
- political discourse 3, 7, 15, 19, 21, 97n23, 103–104, 109, 112
- political polarization 54, 103, 111
- populism 16
- Porter, James 32
- postmodernism 17, 106
- poststructuralism 106
- post-truth 17–19, 31, 44, 105, 108, 111, 124, 129; and epistemological crisis 107–108; truth and 106–107
- Praying Medic 73–74
- PrEP (pre-exposure prophylaxis), HIV prevention drug 89
- pro-HCQ cluster 54, 73, 75, 112
- psychological well-being 33
- psychology 33, 37–38
- public discourse 4, 6, 11, 17, 19–23, 25, 31–32, 39, 113, 129
- public policy 7, 13–14
- quaestio* method 117
- Quintilian 4, 21, 25, 39, 64
- racism/racial 84–87, 90–1, 116; racial hierarchy 85, 91; and violence 84–85, 89, 91–92
- Raoult, Didier 54, 95n9
- rational appeals 3–4, 39, 64, 84, 88
- rationalism 106–107
- rational language 39, 65, 72, 101
- reason 9, 15, 17, 19–26, 37–40, 44, 54, 70–72, 87, 95, 101, 106, 109, 132; and science 102–105
- Reich, Robert 81–82
- Renaissance 21–22, 25, 33, 82
- Republicans 14, 19, 44, 81–82
- rhetoric/rhetorical 19–25, 32, 39–40, 42, 44, 60, 64, 68–70, 80, 82, 87–88, 90, 94–95, 112, 128–129, 132; of “both sides”/“both-sideism” 16, 22, 91, 108, 112–114, 118, 124, 127–129, 133n2; classical rhetoric 19–23, 32, 82, 113, 132; digital rhetoric 8, 20, 32, 113; emotional rhetoric 23, 64, 84, 87; political rhetoric 19; presidential rhetoric 70–71, 95n2; rational rhetoric 64, 84; rhetorical analysis 8, 32, 39, 64–65, 68–69; rhetorical appeals 4, 23, 64, 70, 84; rhetorical persuasion 4, 24–25, 82, 128, 132; rhetorical relativism 22

- Rivera, Geraldo 114
 RT (Russia Today) 90–91
- Sasse, Ben 19
 Sather, Jordan 93
 scale-free network 35–36
 self-governance i, 3, 8, 11, 13, 16
 sentiment analysis research 37–39, 68
 Sidney, Philip 25
 simulacrum 9, 102, 104
 simulation 9, 102
 Skinner, Quentin 24–25
 social configurations 33
 social contract theory 7, 13
 social discourse 11, 32
 social justice 5–7, 112
 social movements 6, 22
 social network analysis (SNA) i, 3, 11, 16, 25–26, 31–32, 36–7, 68–69, 111; analysis of 7–11, 39; history of 32–33, 35–37; and machine learning 38–65; purpose of 4–7
 social network research 37
 social psychology 33
 social sciences 6, 31, 36–37
 sociogram 32–33, 34
 sociology 33, 36–37
 Stuckey, Mary 70
 Swayne, Desmond 85
- textual analysis method 6, 8, 69
 Threads 133
 Three.js 41
 TikTok 37, 112
 totalitarian/totalitarianism 13, 111
 transdisciplinary 6, 12n5, 12n6, 36, 111
 Tribel 133
- tribe/tribalism 107–108
 Trump, Donald 5–6, 9, 11, 13, 15–16, 18–19, 70–71, 75, 81–83, 86, 89, 92–94, 96n11, 101, 111, 124, 128; on AIDS vaccine 89, 128; “both sides/”both-sideism” 16, 22, 91, 108, 112–114, 118, 129, 133n2; COVID-19 network of 119; face mask 75–76; “Make America Great Again” slogan 16; Nietzsche on 106; political network of supporters on Twitter (2016 election) 9, 10; presidential rhetoric 70–71, 95n2; pro-Trump Twitter activities 6, 9, 10; @realDonaldTrump 5–6, 71–72, 75
 Trumpism 16, 105, 108
 Twitiverse 5, 112
 The United States (US) 3, 13–14, 39; Americans died from corona virus 75–76; First Amendment to the US Constitution 13
- Vasaly, Ann 113
 violence: mask-related rage and 91–92; racism and 84–85, 89, 91–92
- Walsh, Matt 116
 Waters, Maxine 92–93
 Watts, D. J. 33, 35
 Western political philosophy 7, 13
 Wilson, Rick 94
 Woods, James 74
 World Health Organization (WHO) 86
- Younus, Faheem 80
 YouTube 37

