



The story of social media: evolving news coverage of social media in American politics, 2006–2021

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Abstract

This article examines how American news media have framed social media as political technologies over time. To do so, we analyzed 16 years of political news stories focusing on social media, published by American newspapers ($N=8,218$) and broadcasters ($N=6,064$) (2006–2021). Using automated content analysis, we found that coverage of social media in political news stories: (a) increasingly uses anxious, angry, and moral language, (b) is consistently focused on national politicians (vs. non-elite actors), and (c) increasingly emphasizes normatively *negative* uses (e.g., misinformation) and their remedies (i.e., regulation). In discussing these findings, we consider the ways that these prominent *normative* representations of social media may shape (and limit) their role in political life.

Lay Summary

This study considers how American news outlets have covered social media in the context of American politics from 2006 to 2021. By analyzing the words in political news stories focused on social media, we found that coverage has become more negative and moralized over time. We also observed that stories tend to focus on national politicians and emphasize the *negative* effects of social media on politics (e.g., misinformation). Findings lead us to consider how this type of coverage might be shaping (and limiting) our thinking about ways social media can *positively* impact American political life.

Keywords: social media, politics, framing, social construction, automated content analysis.

Over the past two decades, social media have become some of the most publicly visible communication technologies, particularly in the domain of American politics. In the years following their introduction, some argued that social media would democratize the public sphere and enable new forms of participatory politics for everyday citizens (Benkler, 2006; Bennett & Segerberg, 2012). Yet, over time, these platforms have become implicated in the spread of disinformation, degradation of public discourse, and rise of authoritarian leaders (Sunstein, 2018; Wells et al., 2020). Scholarly work on social media has continued to vacillate between these citizen vs. elite-driven visions of social media's role in politics (Lomborg, 2017; Wells et al., 2020).

Yet, less is understood about how social media have evolved more broadly in the American imagination. The way societies come to understand the potential and perils of technology is an inherently social process, in which mass media have played a central role (Fisher & Wright, 2001; Rogers, 2010). In this sense, news coverage of social media and politics may have an important influence on how social media are designed, adopted, regulated, and studied (Katzenbach, 2018; Lev-On, 2019; Robards & Graf, 2022).

In this article, we consider how news coverage provides the public with the basic building blocks for forming *normative* perceptions about social media (Esser, 2000; Geber & Hefner, 2019). We use “normative perceptions” to refer to beliefs about how technologies should be used, which actors should be using them, and the consequences of that use for

politics (Geise et al., 2022; Venema, 2021). Our motivating concern is that journalistic framing of social media has evolved in ways that emphasize a normatively *negative* view of social media. Research suggests that such “dark” portraits of social media may limit public and scholarly conversations about their role in political life (Carlson, 2020; Hameleers, 2023; Jensen, 1990). In contrast, more diverse coverage of social media has the potential to also highlight the normatively *positive* uses of these technologies, including their instrumental role in expanding citizen participation and voice (Jackson et al., 2020).

A vital first step in addressing this concern is to generate a more detailed, longitudinal empirical picture of journalistic framing of social media and politics. Accordingly, this article analyzed 16 years (2006–2021) of political news stories focused on social media, published in four national and nine regional U.S. newspapers ($N=8,218$) and on six U.S. broadcast networks ($N=6,064$). Guided by theories of journalistic practice and normative perception, we focus on three norm-related aspects of news coverage: (a) normative *valence*, (b) which *actors* are featured, and (c) which *uses* are featured (Geise et al., 2022; Venema, 2021).

Using automated content analysis, we find that, over time, coverage of social media in political news stories: (a) increasingly uses negative and moral language, (b) is consistently focused on national politicians (vs. non-elites), and (c) increasingly emphasizes normatively negative uses (e.g., misinformation) and their remedies (i.e., regulation). Findings

suggest that journalistic representations of social media may be shaping (and limiting) our thinking about how social media can *positively* impact American politics.

Journalistic construction of social media

Social media are *socially constructed* technologies; the way we come to understand their role in political life is actively constructed by various social actors. The uses and effects of social media are not only the consequences of technological design, but also determined by the way these platforms interact with the perceptions, motivations, and expectations of users, who are historically and socially situated (Fisher & Wright, 2001; Jensen, 1990). As diffusion of innovation (DOI) theory argues, mass media play a key role in this process of social construction (Rogers, 2010). Journalists offer widely accessible representations of technological use and consequences, which may influence how the public perceives and engages with technologies (Clifford & Jerit, 2013; Lev-On, 2019).

More specifically, theory and research suggest that news media might influence *normative* perceptions of technologies. Here, DOI predicts that adoption of a technology can depend on its “compatibility” with sociocultural beliefs (Rogers, 2010). When technologies are portrayed as *incompatible* with a society’s values or culture (i.e., as normatively negative), they may become less likely to be adopted (Carter & Bélanger, 2005). Ideally, news coverage would offer diverse portraits of technologies, highlighting both their advantages and disadvantages from the standpoint of a given social or political system (Rogers, 2010). However, scholarship illustrates that coverage and criticism of technology is typically more reflective of societal hopes and fears than the inherent characteristics or possibilities of a technology (Fisher & Wright, 2001; Jensen, 1990). As Jensen (1990) argued, new media technologies are either viewed as exciting vehicles for social progress or as threats to a more wholesome premodern past (i.e., utopian vs. dystopian narratives; Fisher & Wright, 2001). Scholars argue that journalism has contributed to these narratives, often catalyzing “moral panics” related to technology (Carlson, 2020). For example, Orben (2020) described alarmed news reports of the disastrous effects of radio on young children in the 1920s. Examples like this illustrate how news media may be particularly attuned to the ways social media are incompatible with political values and norms, thus discouraging their adoption or development.

One skeptical response to this line of theorizing is to point out that technologies really *do* have predominantly negative normative consequences. In this sense, dystopian coverage of technologies like social media is often grounded in reality (Fisher & Wright, 2001). However, a vast literature shows that social media have affected politics in a multitude of normatively negative *and* positive ways (see Vaccari & Valeriani, 2021). For example, these technologies have helped facilitate grassroots political movements (Jackson et al., 2020), while simultaneously amplifying the power of anti-democratic political elites (Wells et al., 2020). Portraying social media as primarily negative political technologies would be to minimize a large portion of the scholarly evidence.

Given this reasoning, what might lead journalists to frame social media in ways that foreground their negative consequences? To answer this, we turn to research on journalistic framing and consider how news content might influence key building blocks of normative perceptions of social media.

Framing the normative uses of social media

In this section, we draw upon framing theory (Entman, 1993), to consider both how journalists construct news frames about social media (i.e., “frame building”) and how such frames might increase the salience of certain normative aspects of these technologies (i.e., “frame setting”; Scheufele, 1999). In doing so, we lay the theoretical groundwork for our research questions about how framing of social media and politics has evolved over time.

Frame building

We start from Entman’s classic definition of news frames as a journalist’s selection of “aspects of a perceived reality” that “promote a particular problem definition, causal interpretation, moral evaluation, and/or treatment recommendation” (Entman, 1993, p. 52). Research on “frame building” examines how aspects of journalistic practice (e.g., media systems, newsrooms, journalistic routines) influence the way journalists frame news topics, particularly in relation to normative standards. While this study does not assess how journalists build frames *per se*, research on frame building helps inform our expectations about what patterns of coverage are likely to emerge.

Generally, journalists’ training and routines orient them toward novel topics like the introduction of new technologies and encourage them to cover technologies as a tradeoff between risks and benefits (Lee, 2016; Lee & Grimmer, 2013; Weaver et al., 2009). Journalists and news organizations are particularly attentive to the kind of disruptions to the status quo that new technologies introduce (Lee & Grimmer, 2013). In addition, framing of social media is likely to be shaped by the way journalists themselves engage with these technologies in their workplace (Molyneux & McGregor, 2022). Journalists are avid users of social media, particularly Twitter (Molyneux & McGregor, 2022), and are frequently exposed to contentious partisan politics on social media (Krupnikov & Ryan, 2022). As Scheufele (2006) argues, newsrooms tend to develop a set of shared schemata (i.e., mental representations of a particular topic or phenomena) that shape the frame building process. Research suggests that newsroom schemata of social media tend to be negatively valenced, as news organizations encourage journalists to think about social media as a “risk to guard against” (Lee, 2016, p. 106). Some scholars suggest that digital media may be covered negatively because these technologies threaten the professional and epistemic authority of journalists (Carlson, 2020; Jones & Himelboim, 2010).

Overall, this evidence suggests that political journalists are likely to view what happens on social media as newsworthy and are primed to frame social media as problematic for politics, including for the profession of journalism. This first point informs our first research question, which simply asks how frequently social media appears as a focal topic in political news over time. We operationalize this in terms of the appearance of social media terms in news stories (see the Method section) and examine full-text of stories, headlines, and lead paragraphs, where the focal topics of the story are more likely to appear.

RQ1: Over time, what percentage of political newspaper stories¹ contain social media terms in their (a) headline, (b) headline and lead paragraph, and (c) entire story text?

Framing setting

Next, we turn to how the predisposition of journalists to build negative normative frames about social media in politics will manifest in news content itself. This can be theorized through the process of “frame setting,” in which certain attributes of a particular topic are made salient in aggregate news coverage (Scheufele, 1999). Again, our study does not empirically examine news frames per se, but rather attributes with *normative* implications that might be made salient in the frame setting process.

In general, mass media can shape our perceptions of normatively desirable and undesirable behaviors, by portraying what people generally do (i.e., descriptive norms) and highlighting what people *should* do in order to be consistent with existing values and moral standards (e.g., injunctive norms) (see Geber & Hefner, 2019). The normative function of news coverage is central to Entman’s original conceptualization of frames as focused on social problems and their remedies in reference to specific actors and moral standards (Entman, 1993). This conceptualization of frames as conveying *normative* information has been central to research on news framing of technology (Marks et al., 2007; Weaver et al., 2009).

In this article, we focus on specific aspects of normative perceptions that are made salient in the process of frame setting. We start with elements of normative claims identified by Esser (2000): the content (what is evaluated or expected), the subject (who should take action), and the object (who benefits from the action) (pp. 51–53). Several communication scholars have built on Esser’s categories to analyze normative claims in academic articles (Geise et al., 2022) and in visual media (Venema, 2021). Likewise, Gershon (2008) emphasized that beliefs, attitudes, and strategies related to the use of digital technologies can shape perceptions of users and purposes of those technologies. While normative claims are communicated in diverse and complex ways (Geber & Hefner, 2019), we use existing theory to identify three basic features of news frames that might influence normative perceptions (Esser, 2000). Below, we consider how coverage of social media will be: (a) characterized by negative/positive and moral language (*normative valence*), (b) focused on elites vs. non-elites (*actors*), and (c) focused on some normative uses and problems over others (e.g., misinformation vs. citizen participation) (*uses*).

Emotion and moral language in coverage of social media (normative valence)

We first consider how the normative valence of political news coverage of social media might shift over time. We use “normative valence” to refer to the evaluation of social media as negative or positive in relation to established values or morals (Esser, 2000). Empirical research suggests that journalists frame technologies as both normatively positive (e.g., nano-technology; Donk et al., 2012) and negative (e.g., Facebook during wartime; Lev-On, 2018). When technologies are first introduced, perceptions are likely to be more extreme (i.e., utopian/dystopian; Fisher & Wright, 2001), as societies struggle to determine if a technology is compatible with socio-political values (Rogers, 2010). Over time, as technologies are adopted by a wider number of users, perceptions are likely to be more balanced and responsive to the consequences of technological use (Fisher & Wright, 2001; Rogers, 2010).

However, the persistent biases in journalistic frame building—outlined earlier—suggest that coverage of social media may become more *negatively* valenced over time, as journalists spend more time in politically contentious social media environments that threaten their profession (Krupnikov & Ryan, 2022; Lee, 2016).

To examine these competing possibilities, we consider whether coverage of social media has changed in terms of two indicators of normative valence: emotion and morality. First, *emotions* capture the affective nature of news content, which can cue news consumers to whether a particular actor or issue should be positively/negatively evaluated in comparison to normative standards (Marks et al., 2007; Young & Soroka, 2012). Anger and anxiety, in particular, are two discrete negative emotions that can affect political attitudes and motivate political behavior (Weeks, 2015). Anxiety reflects uncertainty in the presence of a threat and can lead to aversive behaviors, intended to avoid or manage that threat. Anger, on the other hand, occurs when threats are encountered with a greater degree of certainty and can lead to approach behaviors, intended to engage the threatening source directly (Valentino et al., 2008). The presence of anxiety or anger in coverage of social media and politics could signal that social media platforms are threats that entail varying degrees of uncertainty. While less studied, optimism is an important positive emotion that signals that goals are being attained, thereby reinforcing the optimism-inducing behavior (Valentino et al., 2011). The presence of optimism in coverage would indicate that social media are framed as fulfilling their intended goal in politics.

RQ2: How does the percentage of stories in our primary story corpus with anxiety, anger, and optimism words change over time?

Next, we consider the presence of *moral* language as a component of normative valence. Moral judgments inherently involve assessing whether a behavior or actor is compatible with existing belief structures (i.e., including assessment of normativity; Graham et al., 2011). One key function of news frames is to provide moral information about political and social issues, so audiences can form such normative perceptions (Entman, 1993; Esser, 2000). As we have noted, the news has historically covered new technologies in moralized terms (Fisher & Wright, 2001; Jensen, 1990). However, there are contrasting predictions about whether moralization is a constant, systematic feature of technology coverage (Marvin, 1988) or whether it emerges early in technological introduction and fades over time (e.g., moral panics; Carlson, 2020; Fisher & Wright, 2001). This is an important distinction because moralizing rhetoric may encourage the public to conceptualize and discuss technologies in moralized terms that disrupt more evidence-based debate (Clifford & Jerit, 2013).

Accordingly, we examine the moral nature of news coverage using moral foundations theory (Graham et al., 2011), which identifies universal, but culturally variable, moral domains. This theory argues that morality is expressed and experienced across the dimensions of (a) harm/care, (b) fairness/reciprocity, (c) ingroup/loyalty, (d) authority/respect, and (e) purity/sanctity. While each of these moral foundations has its own theoretically distinct role (Graham et al., 2011), the presence of *any* of these foundations in news stories may make the moral dimensions of a particular topic more salient (Clifford et al., 2015). In particular, the presence of language

related to harm could indicate that journalists are framing social media as morally threatening. Language related to authority could encourage associations with political elites (Graham et al., 2011). We therefore examine the occurrence of words related to each of the five moral foundations over time.

RQ3: How does the percentage of stories in our primary story corpus with moral foundation words change over time?

Elite- vs. non-elite coverage (*actors*)

Next, we consider *the actors* who are mentioned in articles about social media and politics. Understanding which actors are salient in technology use is central to normative perceptions, because it helps establish who can and should use a given technology (Geise et al., 2022; Rogers, 2010; Venema, 2021). In the social media context, we distinguish between two broad categories of actors: *political elites* and *non-elites*. Early utopian visions of the internet and social media (e.g., Stromer-Galley, 2000) emphasized how these technologies would democratize the political process, allowing individuals and activists to engage in political expression and deliberation (Papacharissi, 2002). This line of thinking argues that what makes social media distinct from other communication technologies (e.g., television) is their connective affordances, which facilitate new forms of participatory politics (Benkler, 2006; Bennett & Segerberg, 2012; Jackson et al., 2020). We characterize this as *non-elite* social media use, in which social media are conceptualized as tools that afford ordinary people voice and visibility in politics.

In contrast, social media have also been studied as tools for elite influence. This perspective imagines social media to be far more similar to other mass media, in that they are primarily used for one-way communication by elite actors (e.g., politicians and media corporations). In the context of social media, politicians and other elites have understandably been the earliest and most avid users of these tools for advertising and direct communication (Carpenter, 2010; Jungherr, 2016). For example, during his time as a candidate and as president, Donald Trump operated as arguably the most visible social media user in the world (Wells et al., 2020). We characterize this as *political elite* social media use, in which social media are conceptualized as tools for elites (national politicians in particular) to wield influence.

Scholars have offered several sophisticated theoretical frameworks for understanding how these forms of citizen- and elite-led social media use are, in fact, interdependent (e.g., Chadwick, 2017). However, it is less clear how news coverage has balanced portrayals of these two broad types of actors. On the one hand, much of what makes social media novel are their connective and expressive affordances and general accessibility to non-elites. The emergence of social media-enabled social movements suggests that non-elites would have ample opportunity to become salient in news coverage over time (Freelon et al., 2018). On the other hand, news content is systematically biased toward the perspectives of governmental authorities and political elites (Bennett, 1990). In addition, the reality that social media have become important arenas for so much of electoral politics (e.g., campaigning) suggests that national politicians would frequently be the focus of political stories involving social media (Fowler et al., 2020;

Molyneux & McGregor, 2022). Given this mixed evidence, we ask:

RQ4: What percentage of stories in our primary story corpus mention (a) terms associated with a non-elite actor vs. (b) political elite actors (i.e., the last name of a national U.S. politician), over time?

Uses of social media in political coverage (*uses*)

Finally, we consider which political *uses* of social media are salient in political news coverage. Technological use is at the center of normative perceptions because each use can be evaluated as normatively positive/negative in relation to established social and political values (Esser, 2000). When the news emphasizes different aspects of a topic, such as what a technology is used for, it can affect the public's general attitudes and emotions toward that topic (Amsalem & Nir, 2019). In this study, we are interested in how frequent mentions of a particular use of social media might lead the public to focus on particular normative consequences. Lev-On (2018, 2019) asked a similar question about how Israeli media covered Facebook during anti-war activism. Lev-On (2018) argued that by highlighting some political uses of Facebook (e.g., a tool for hate speech) over others (e.g., a tool for collective action), coverage could potentially influence public perceptions of social media and how citizens use such platforms.

Different uses of social media have their own complex normative implications. For example, using social media to spread misinformation is understood as normatively bad for democratic politics (Carlson, 2020), while using social media for political advertising is more normatively ambiguous (Fowler et al., 2020; Kreiss & McGregor, 2018). Given this complexity, we reviewed the extensive scholarship on social media and politics (see the Method section) and identified prominent uses of social media that have been the focus of academic research. Our goal was to determine the extent to which the uses that scholars have identified as normatively important have been made salient in political news coverage. We note that this is not intended to be an exhaustive typology, but rather a set of uses that have been the focus of scholarly "hopes and fears." We identified the following categories of social media use: (a) electoral uses (political advertising, fundraising, and campaigning), (b) political engagement (participation and deliberation), (c) counter-normative participation (misinformation, violence/hate, and interference), and (d) platform regulation. We review each of these briefly.

Electoral uses

Some early scholarship examined the potential of the internet and social media to reshape national political campaigns, particularly during the 2008 U.S. presidential election (Carpenter, 2010; Stromer-Galley, 2000). Research has continued to highlight that social media are not only key channels for political fundraising and campaigning (Fowler et al., 2020; Kreiss & McGregor, 2018), but also tools that amplify elite influence in normatively negative ways (Wells et al., 2020). We define these various uses as *electoral* because they are all directly related to the electoral processes.

Political engagement

Much of the optimism about social media centers around its potential to empower citizens to exert greater political voice and influence in normatively positive ways (Allen & Light, 2015). We consider this *participatory* use, which includes participation on social media (e.g., political expression and digital social movements) as well as offline participation that is motivated by social media use (Boulianne, 2015; Jackson et al., 2020). We separately examine the *deliberative* use of social media, given extensive research on social media as spaces for debate and discussion of politics (Literat & Kligler-Vilenchik, 2021; Papacharissi, 2002).

Counter-normative uses

Several uses of social media have been explicitly conceptualized as normatively undesirable for democratic political systems. The most prominent of these is *misinformation* on social media, which has garnered a large amount of scholarly attention (Carlson, 2020). We also consider several forms of *extremism* that can be connected to social media, including rioting and terrorism (Wahlström & Törnberg, 2021). *Disordered deliberation* refers to a range of counter-normative deliberative behaviors such as hate speech, outrage, and firestorms (Gagrčin et al., 2022). Relatedly, scholars have increasingly studied social media's role in driving political *polarization* (Kubin & von Sikorski, 2021). Here, we include concerns over “echo-chambers” and other forms of division created by social media. Finally, some scholars have examined how foreign actors use social media to engage in *interference* in elections and other aspects of U.S. domestic politics (Lukito, 2020).

Regulatory uses

Our final category of social media use relates to the *regulation* of political speech and action on social media. This aimed to capture solutions to issues inherent in the negative uses of technology, which is an important element in the institutionalization of normative expectations (e.g., either into social or legal norms, Katzenbach, 2018). We include behaviors such as banning, moderating, and regulating in this category.

Having identified these prominent uses of social media, we consider how they should appear in news coverage over time. On the one hand, the diffusion of social media should lead to increased diversity of uses over time (Rogers, 2010), with both normatively positive and negative uses mentioned frequently. On the other hand, social media have disrupted the American political system (Wells et al., 2020) and journalists are oriented toward emphasizing these disruptive uses over more normatively positive uses. Accordingly, we examine how frequently different uses are mentioned over time:

RQ5: What percentage of stories in our primary story corpus mention terms related to various uses of social media over time?

Method

Data collection

To answer our research questions, we collected a corpus of news stories focused on social media published between 2006 and 2021. We selected this period because it spanned from

the introduction of Facebook to the American public until 2021, providing a 16-year period to observe the evolution of coverage of social media (e.g., Facebook, YouTube, etc.; see Table 1). We selected outlets with large national and regional audiences from among those whose content was accessible from the Factiva and Nexis Uni news databases. This included stories from four national newspapers² (*The New York Times*, *The Wall Street Journal*, *The Washington Post*, and *USA Today*), nine regional newspapers (*The Atlanta Journal-Constitution*, *The New York Post*, *The Boston Globe*, *The Pittsburgh Post-Gazette*, *The St. Louis Dispatch*, *The New York Daily News*, *The Tampa Bay Times*, *The Minneapolis Star-Tribune*, and *The Philadelphia Inquirer*), and transcripts from six television and radio broadcasters (CNN, FOX, ABC, NBC, CBS, and NPR). Collectively, these sources cover a wide variety of mainstream American media outlets that were consistently publishing during this period and comprise a sample that is comparable to past longitudinal news content analyses (Chinn et al., 2020).

Data were collected using the news databases Factiva (for newspapers) and Nexis Uni (for broadcasters). Our goal was to select stories in which politics and social media were both focal topics. To select political stories, we considered all stories within each database's broadest category focused specifically on politics. For Factiva, this was “Politics/International Relations” and for Nexis Uni this was “Government & Public Administration.” To find stories that focused on social media, we searched the headlines of stories with a boolean term containing social media-related terms (see Table 1). Searching headlines was necessary because social media are often mentioned in stories (e.g., a reporter mentions their Twitter handle) without being a core focus.

We downloaded the results of these searches ($N_{\text{Factiva}} = 11,130$, $N_{\text{Nexis}} = 6,580$) and filtered out any stories that were either: (a) less than 250 words (typically indicating a news bulletin rather than a full story) or (b) duplicates of other stories (based on exact headline matches and stories with >75% word similarity). This resulted in a primary story corpus (labeled *SM in Politics*: $N = 14,282$), containing 8,218 newspaper and 6,064 broadcast stories.

For the purposes of comparison, we used the superior search capabilities of Factiva to build three other corpora of *newspaper* stories.³ The purpose of these corpora was to offer points of comparison in order to determine if unique patterns emerged when both social media and politics were focal topics. The first two comparison corpora were newspaper stories that contained social media words in the headline and were tagged in two *non-political* Factiva categories: “Arts” (*SM in Arts*: $N = 3,725$) and “Lifestyle” (*SM in Lifestyle*: $N = 8,520$) (stories that were *also* tagged as “Politics\international relations” were excluded). These sets of stories offer a point of comparison for coverage that is focused on social media, but not explicitly related to politics. The third comparison corpus was newspaper stories from the “Politics\international relations” category that had *television* words in the title (e.g., “TV,” “cable”) (*TV in Politics*: $N = 5,573$). This corpus offered a point of comparison for stories that are political, but explicitly related to *another* communication technology (i.e., television). The same data cleaning procedures were used for comparison corpora. Comparison corpora were used as points of reference, rather than to answer our research questions directly.⁴

Table 1. Dictionary terms

Dictionary name	Terms
Social media	social media, social networking site*, hashtag*, facebook*, instagram*, pinterest*, linkedin*, snapchat*, twitter*, whatsapp*, tiktok*, reddit*, myspace*, google plus*, tumblr*, parler*, youtube*
Non-elite actors	citizen*, voter*, taxpayer*, ballot*, citizenry*, constituent*, the public, user*, activist*, protester*, demonstrator*, poster*, commenter*, crowd*, blogger*, facebooker*, tiktok*, instagramer*, youtuber*, influencer*, hacker*, people on, movement*, extremist*, terrorist*, militia*, insurrectionist*, supporter*, individuals, fan*, creator*, follower*, backer*
National politician actors	See OSF site for full dictionary https://osf.io/8awu7
Electoral	donat*, donor, fundrais*, pac, political action committee, ads, ad, advertising, advertisement*, campaign*, election*
Participation	civic engagement, protest*, social movement, activist*, hacktivist*, hashtag campaign, hashtag movement, voter selfie, demonstration, black lives matter, tea party, *teaparty, *blacklivesmatter, arab spring, *arabspring, *metoo, me too, participation, mobiliz*, racial justice, social justice
Deliberation	deliberation, deliberated, dialogue, persuasion, persuade*, conversations on*, conversation on*, online conversation*, conversations over, talking on, talking over, political discussion*, political talk*
Misinformation	propaganda, misinformation, disinformation, malinformation, lies, fake news, false news, falsehoods, conspiracy, conspiracies, astroturfing, false information, false ads, misleading information
Extremism	riot*, insurrection, uprising, terroris*, extremis*, Jan. 6*, January 6 th
Disordered deliberation	hate speech, outrage, firestorm, shitstorm, twitter mob, harass*, harmful speech, tirade*, shout*, troll*, yell*
Polarization	echo chamber, filter bubble, polariz*, division*, divide*, divisive, radicaliz*
Interference	interference, meddl*, manipulat*, bot, bots, election influence, russia influence, russian influence, russian campaign, russian ad*, kremlin-backed, russian-backed, russian-created, China influence, chinese influence, chinese ad*, foreign influence
Regulation	regulation, regulate, regulatory, ban, banning, bans, moderate, moderation, moderator, restrict*, remov*, suspend*, suspension, police content, deplatform*, censor*, remove*

Analysis plan

Our analysis was conducted using several natural language processing techniques in the statistical program *R*. First, we extracted all sentences that contained social media words in each story for all corpora to make sure that any linguistic patterns detected were in reasonable proximity to the concept of social media within each story. With the exception of RQ1, all other RQs were examined by analyzing these extracted sentences in which social media words appeared.⁵ For our analyses, we primarily used a bag-of-words approach, which automatically counts occurrence of words and phrases in a given corpus. We used binary coding on the story level to indicate if selected sentences in each story did (1) or did not (0) mention dictionary terms.

To analyze the frequency of emotion words, we used dictionaries for detecting discrete emotions in political texts developed by Fioroni et al. (2022). These dictionaries included words related to anger (e.g., fury, frustrated, vitriol), anxiety (e.g., anxious, concern*, alarming), and optimism (e.g., hope, promising, optimistic). Fioroni et al. (2022) provide extensive information on validation of these dictionaries using political text and report full word lists on the Open Science Framework: <https://osf.io/cbm9e/>.

To analyze moral language, we used the moral foundations dictionaries for Linguistic Analyses 2.0, which has been validated using an international sample of human coders (average Cohen's $d = 0.25$ – 0.37 per foundation; Frimer et al., 2017).⁶ We configured these dictionaries to code for the foundations of care, fairness, loyalty, authority, and sanctity (collapsing across virtue/vice dimensions for each foundation). For all other analyses, we created custom topic dictionaries (described below).

To examine longitudinal trends, we calculated means (sentiment analyses) and percentages (other dictionary-based analyses) by year. While the primary purpose of these longitudinal analyses was to look at trends within the primary corpus

over time, we also report trends in comparison corpora in order to make between-category comparisons.

Dictionary development

Original dictionaries used in this study are available on the Open Science Framework: <https://osf.io/8awu7>. For RQ4, we created two dictionaries to assess mentions of: (1) non-elite actors and (2) national politicians. To create the first dictionary, we developed a codebook that defined non-elite actors as unnamed individual user(s) (citizens, supporters, voters) or groups of non-elite actors (e.g., protestors, social movements). Four trained undergraduate coders reviewed the first paragraph of 1,000 of the stories in our dataset that contained a social media term. The first author then reviewed all stories that were marked by these coders as being focused on non-elite actors (as defined on p. 9). Terms were manually extracted from these coded stories and supplemented with other terms from the academic literature. Table 1 reports the terms in this dictionary. For the national politician dictionary (see OSF site), we collected the last names of all elected presidents, congressional representatives, and senators, along with appointed justices and prominent presidential primary contenders during the time period we studied (2006–2021). We relied on records from Congress.gov and Ballotpedia.org. To reduce false positives, we removed any last name that is also a word with secondary meaning in the English language (e.g., “Young,” “Rush,” “Love”).

To create dictionaries for the uses of social media (see “uses” section), we reviewed several encyclopedias and handbooks focused on digital political communication (Burgess, 2017; Kenski & Jamieson, 2017) and manually extracted terms relating to how social media are used for politics. We used these terms and our expertise in this area to construct topic dictionaries that captured nine uses of social media (see Table 1). To assess validity of custom dictionaries, two authors hand-coded a validation set ($n = 104$ articles). When

compared with this validation set, our dictionaries had F1-scores ranging from 0.67 to 1. For details on validation set construction and full precision, recall, and F1-scores, see [Supplementary Appendix \(Supplementary Table S1\)](#).

Results

The presence of social media in political news stories (RQ1)

RQ1 asked about the percentage of political stories containing social media words during the period we study. Only the capabilities of Factiva provided data necessary to examine this question, so we focused on newspaper stories exclusively in this analysis. [Figure 1](#) plots the percentage of the total number of newspaper stories within the “Politics/International Relations” category in each year that contain social media terms. This includes counts for (a) full story text, (b) headline and first paragraph, and (c) headline only. Across this 16-year period, social media went from being mentioned in 0.30% of the text of political stories in 2006 to 25.76% in 2021 (an increase of 25.46 percentage points). At the same time, stories that more explicitly focused on social media were a relatively small percentage of total stories (3.96% of headlines had SM words and 1.29% of lead paragraphs had SM words in 2021). These findings suggest that social media have become more salient across political newspaper coverage, but that newspapers have devoted a small portion of their total coverage to social media as headline topic (RQ1).

Normative valence: emotion and moral words in social media and politics stories (RQ2–RQ3)

Emotion

RQ2 asked about changes in the frequency of anxiety, anger, and optimism words in stories over time. Our analysis focused on the extracted sentences that contained at least one social media word. Panels in the left column of [Figure 2](#) report trends in the percentage of articles containing discrete emotion words for our primary corpus, broken down by medium (newspapers vs. broadcasters). Lines labeled *SM Politics (Newspapers)* and *SM Politics (Broadcast)* report the yearly percentage of political stories in these categories that also had anxiety, anger, or optimism words. From 2006 to 2021, we observe increases in primary corpus stories with anxiety words (+27.86 points) and anger words (+15.08 points) ($X_2(15) = 509.94; 164.53, ps < .001$), but no similar significant increase in optimism words ($X_2(15) = 19.9, p = .17$). Anxiety in particular appears in nearly a third of all stories by 2021, part of negative trend that appears to accelerate around 2016.

The panels in the right column of [Figure 2](#) visualize trends in the three comparison corpora. All comparison corpora exhibit overtime increases in the percentage of stories with anxiety words, however these increases are relatively small (+0.5 to +7 points). It is important to note that by 2021, 22.7% of Newspaper stories in the “Lifestyle” category contained anxiety words, mirroring trends in the primary corpus. Anger and optimism words appeared comparatively less frequently in the comparison corpora (<12.7% in any given year), with little signs of linear change over time. These findings suggest that

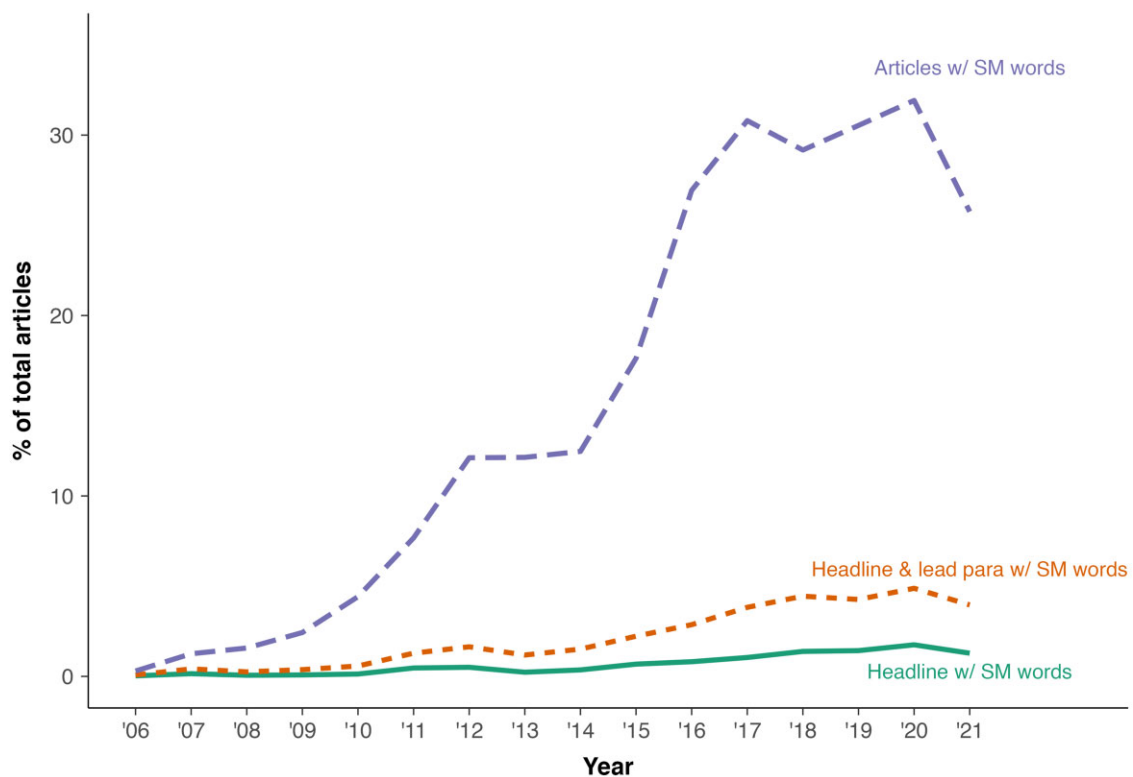


Figure 1. Percentage of total political newspaper stories with social media terms. SM, “social media.” Lines represent yearly averages.

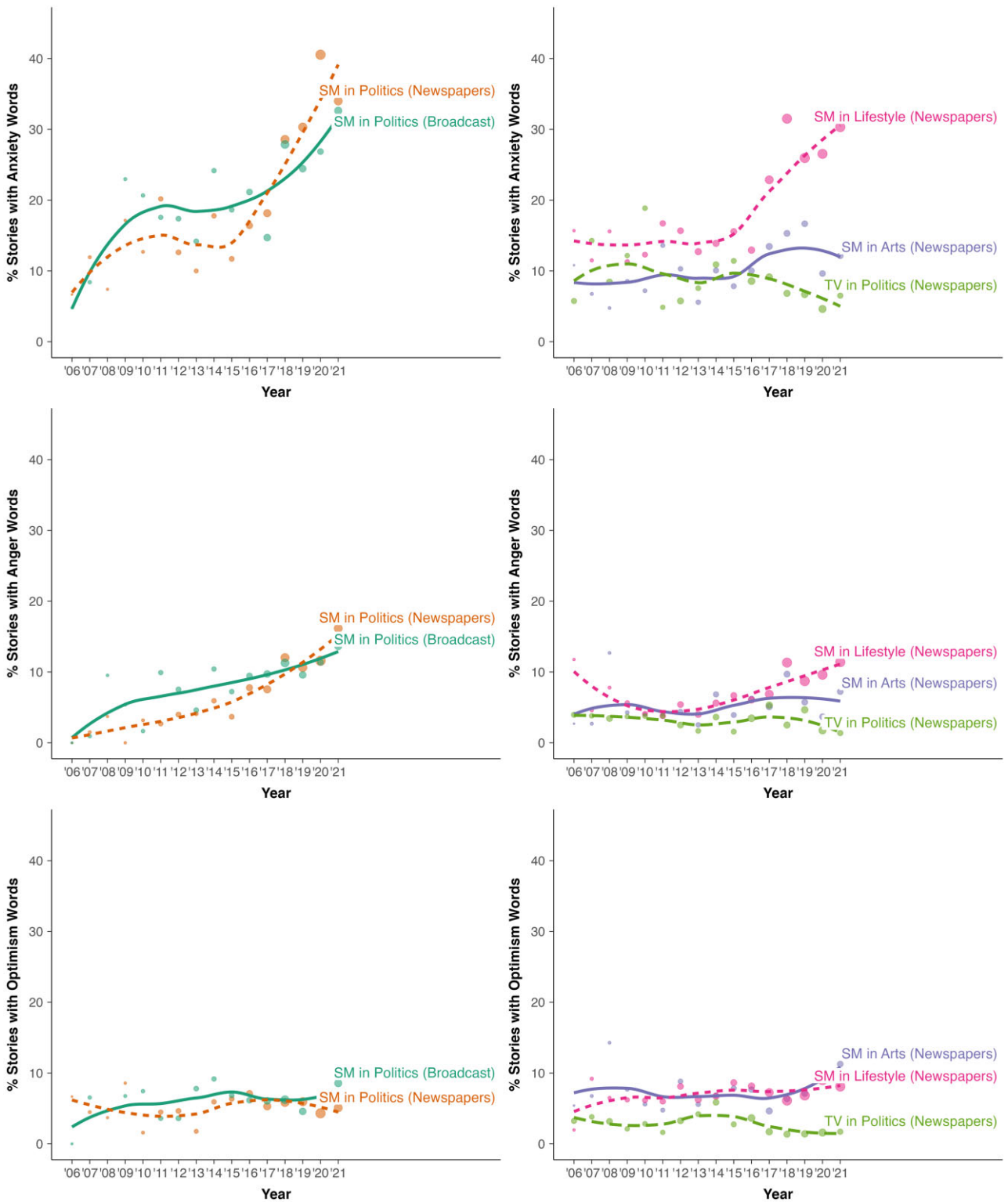


Figure 2. Percentage of stories with discrete emotion words across story corpuses. Panels in the left column report yearly percentage of stories containing discrete emotion words across political stories with social media words in the headlines for newspapers (SM Politics Newspapers) and broadcasters (SM Politics Broadcast). Panels in the right column report yearly percentages for comparison newspaper story corpuses, including Arts and Lifestyle stories with social media words in the headlines (SM Arts and SM Lifestyle, respectively) and political stories with TV words in the headlines. Points represent yearly percentages, with larger point sizes indicating more observations. Lines are locally fitted polynomial regression lines.

the over-time trend toward more anxiety and anger is most prominent not only in stories focused on politics *and* social media, but also appears in “Lifestyle” stories. Optimism words rarely appeared across corpora (RQ2).⁷

Moral words

RQ3 asked about changes in the frequency of morality words over time. We analyzed the primary corpus, which includes social media and politics stories from newspapers and broadcasters. Figure 3 plots the percentage of stories in each year that contain moral foundation words. From 2006 to 2021, authority, care, fairness, loyalty, and sanctity words appear in a larger percentage of stories over time (27.83–46.89 point increases; $X^2_s(15) > 407.08$, $ps < .001$). Collectively, findings indicate that articles in the primary corpus increasingly mentioned moral foundations over time.⁸

Mentions of non-elite vs. national political actors (RQ4)

RQ4 asked about mentions of non-elite vs. national political actors in the primary corpus over time. The left panel of Figure 4 plots mentions of each category of actors in the primary corpus over time. Across the 16-year period, both types of actors are mentioned more frequently (28.76 and 30.29 point increases; $X^2_s(15) > 283.66$, $ps < .001$) however, a greater percentage of stories mention national politicians vs. non-elite actors (20.48% difference across the whole sample). The right panel plots this difference in mentions over time, which shows no clear signs of linear growth. This suggests that both types of actors appear frequently in our primary story corpus, but that there is a remarkably consistent bias toward mentions of national politicians.

Political uses of social media (RQ5)

RQ5 examined mentions of terms related to uses of social media over time. Figure 5 plots the percentage of stories in each year that mention various uses.⁹ The first notable pattern is that electoral uses (advertising, fundraising, and campaigning) are the most frequently mentioned uses (44.48% of stories over time). Mentions of this category remain consistently high, with peaks during election periods. In comparison, citizen uses are mentioned far less frequently than electoral uses. Participation is mentioned in only 12.96% of stories, but increases in salience during periods of collective action (e.g., the Arab Spring in 2009 and racial justice protests of 2020). Mentions of terms related to deliberation (in 3.17% of stories) remain consistently rare over time. This again indicates that news coverage of social media in politics is more frequently focused on elite politics.

Next, we find that mentions of counter-normative uses are present throughout the sample period, but begin to increase over time ($X^2_s(15) > 317.69$, $ps < .001$), particularly between 2016 and 2018. Most notably, the appearance of misinformation terms went from 5.6% of stories in 2006 to 44.30% of stories in 2021 (38.70-point increase). Mentions of extremism, disordered deliberation, and interference also see increase over time (9.5- to 31.58-point increases), particularly after 2016. Polarization is only mentioned in 7.51% of stories. Finally, regulation, which is the second most frequently mentioned category of all time (36.21% across the whole sample), increases substantially from 2016 (14.1%) to 2021 (64.40%). Collectively, these trends demonstrate that mentions of counter-normative uses occur early in our data and become some of the most prominent uses in later years. Regulation also appears to become a substantial focus in the last five years of our sample.

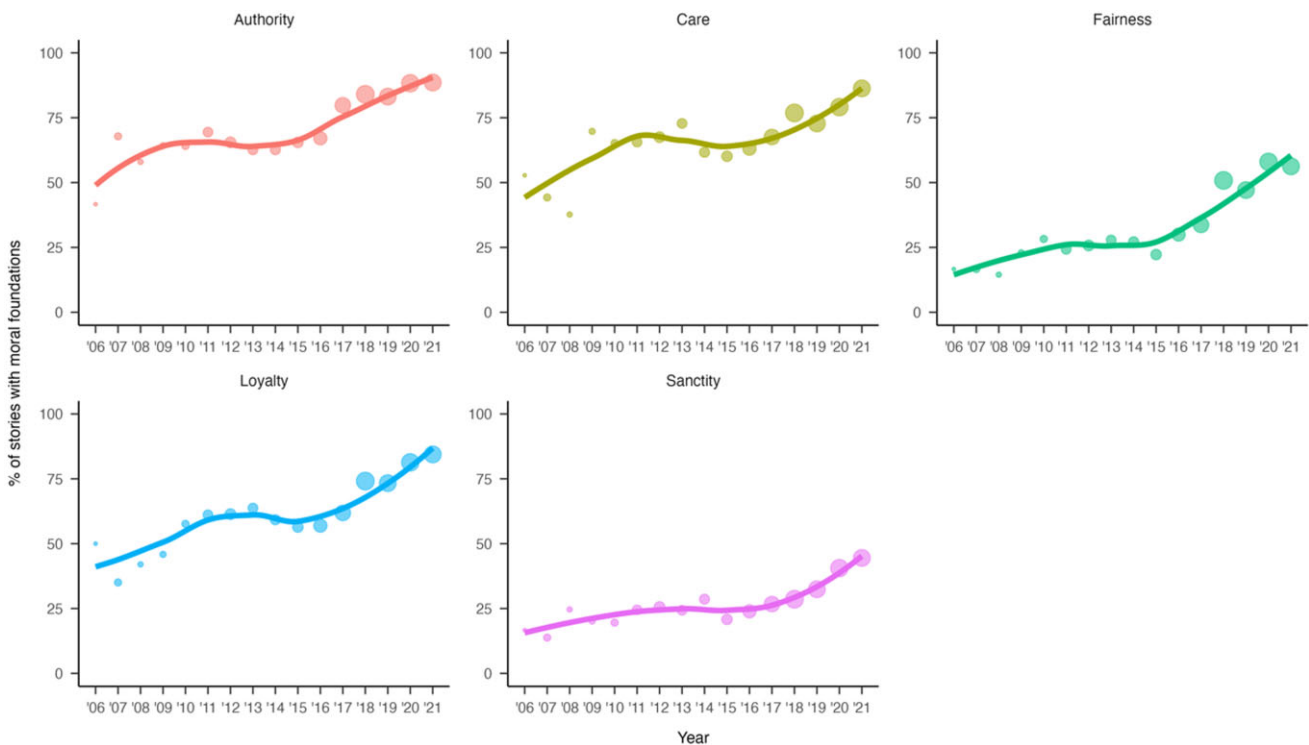


Figure 3. Moral foundation words in primary story corpus. Points represent yearly percentages, with larger point sizes indicating more observations. Lines are locally fitted polynomial regression lines.

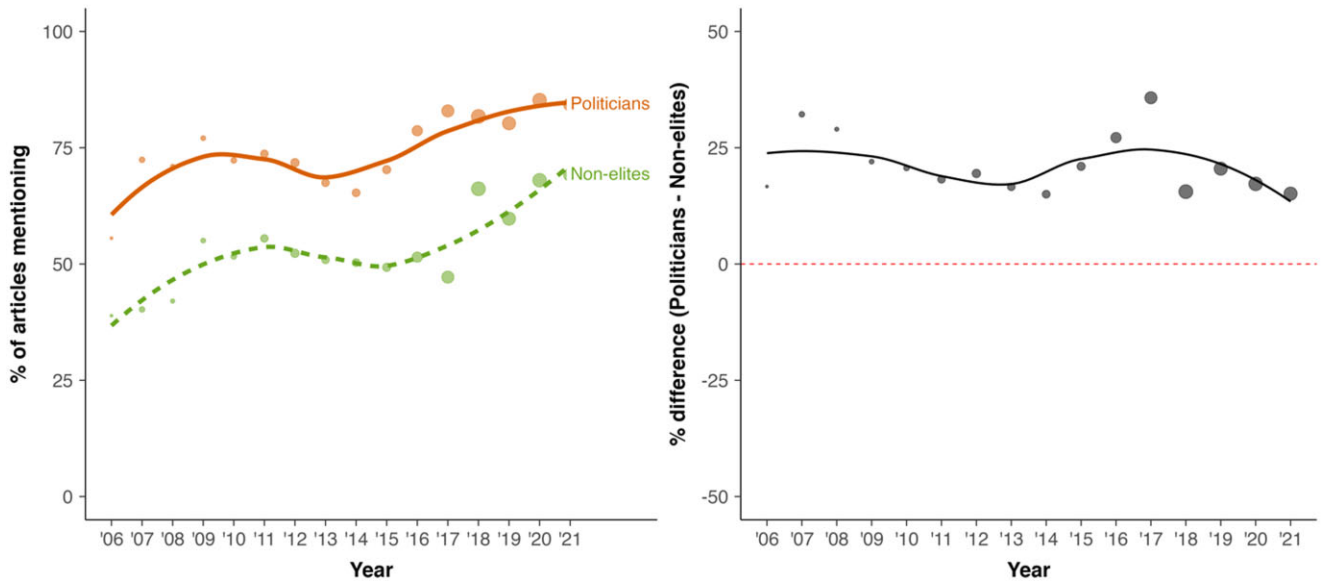


Figure 4. Mentions of non-elite and political actors in primary story corpus. Left panel reports percentage of stories mentioning terms in actor dictionaries across years. Right panel reports percent difference in mentions between political and non-elite actors across years. Points represent yearly averages, with larger point sizes indicating more observations. Lines are locally fitted polynomial regression lines.

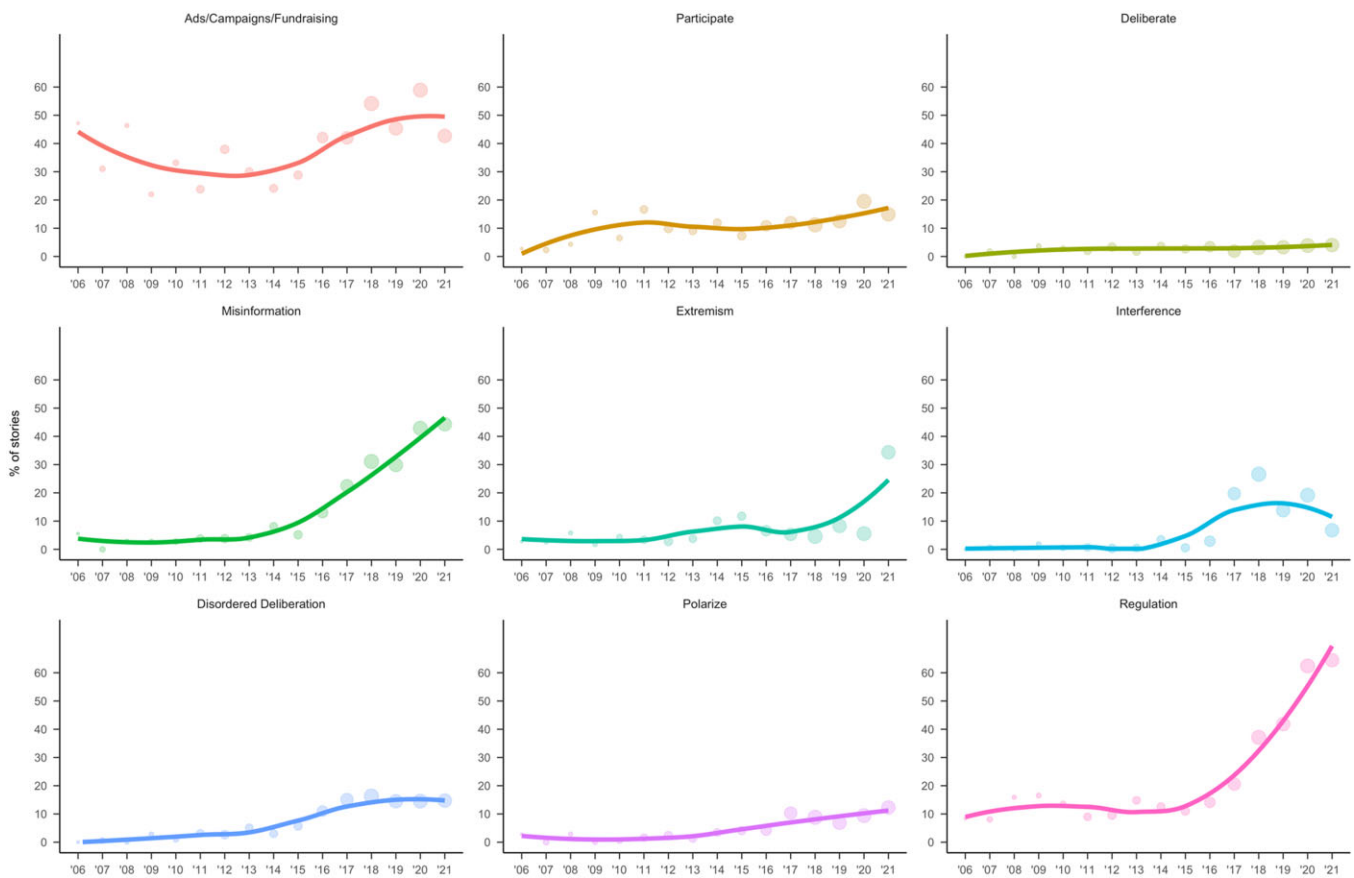


Figure 5. Mentions of political social media uses in primary story corpus. Points represent yearly averages, with larger point sizes indicating more observations. Lines are locally fitted polynomial regression lines.

Discussion

This study offered a broad assessment of how American news outlets have provided the public with the basic building blocks for forming their normative perceptions of social

media during the first 16 years of the social media era. We find that coverage of social media has become increasingly negative, moralized, elite-focused, and preoccupied with counter-normative uses (e.g., misinformation) and their

remedies (i.e., regulation). In discussing these results, we offer points of departure for future research on normative perceptions of social media technologies.

First, we find basic evidence that social media are increasingly salient in political news coverage. Although only a very small portion of political stories take social media as their headline topic, over a quarter of all political stories published in newspapers in 2021 mentioned a social media term. This result aligns with previous research that finds social media are becoming deeply embedded in journalistic routines, both as sources of public opinion and as political contexts (McGregor, 2019). However, this may also stand in contrast with social media's actual role in the political ecosystem. Social media are increasingly important technologies for news consumption, but are used to get news by fewer people than other technologies such as digital news and television (Forman-Katz & Matsa, 2022). Similarly, social media are comparatively smaller outlets for political advertising, where television remains dominant (Fowler et al., 2020). Future research should examine whether salience of social media in political news is commensurate with its actual role in American politics, particularly in comparison to older communication technologies (i.e., television).

Second, in terms of the normative valence of social media coverage, we find that stories in our sample become increasingly characterized by negative emotions and moral language over time. In particular, we observe an increase in use of anxiety words in stories at the intersection of social media and politics. Further, social media are being covered in moral terms, emphasizing the moral foundations of authority, loyalty, and care/harm.

On the one hand, these trends are unsurprising, given prevalent biases in news (e.g., toward negativity, affect, and authority) and the numerous democratic crises occurring in American politics during the time period we study (Lengauer et al., 2012). While most of our comparison corpora do not exhibit increases in anxiety words to the same extent, and there is no strong indication of increased negativity/morality biases in political news overall, it may be the case that broader trends in coverage are also reflected in our primary corpus. This is suggested by a more modest increase in the prevalence of anxiety words in "Lifestyle" articles that focused on social media. On the other hand, and regardless of the cause, it is clear that news outlets are likely to expose the American public to a predominantly negative portrait of social media in the context of politics. It bears repeating that this type of negative coverage is likely to have consequences for the way people think about and use social media (Jensen, 1990; Soroka & McAdams, 2015). By using anxiety words in social media coverage (e.g., "Twitter's *extremely concerning* power over the public" or "*fear* in 140 characters"), journalists may be framing these technologies as a risk to democratic politics whose uncertain nature should be dealt with through avoidance behaviors (Toff & Nielsen, 2022). Covering social media in moral terms, such as harm (e.g., "the *threat* of Facebook" or "*fight*s on Twitter") may lead individuals to think about these technologies as morally harmful and further fuel morally charged debates about the regulation of social media (Clifford & Jerit, 2013). While we are not able to directly assess the effects of this coverage, its normatively negative nature might help explain the dismal view of social media captured in public opinion surveys (Anderson & Auxier, 2020). We emphasize that these trends in coverage are almost

certainly caused by multiple factors, including episodic news cycles and changes in political leadership. Our findings offer a basis for future work that looks more explicitly at potential causes and effects.

Third, our analyses suggest that the actors featured in social media coverage are more likely to be political elites. A higher proportion of social media stories mentioned national politicians vs. a wide range of non-elite actors. Similarly, electoral uses of social media were the most frequently mentioned of the uses we examined, and the moral foundation of authority was increasingly salient over time. While research has often focused on *citizens* using social media to participate and deliberate (e.g., Boulianne, 2019), we find that these uses are mentioned comparatively less often. This pattern likely reflects the tendency of journalists to privilege elite sources (Bennett, 1990). From a theoretical perspective, this repeated association between social media and political elites in news coverage communicates that it is normative for political elites to be the actors using these tools. This may further reinforce the perception that social media are not productive spaces for everyday people to engage in politics (Anderson & Auxier, 2020). In addition, the salience of elite misuse of social media in media discourse and public opinion may promote cynicism among the citizens by signaling the normalization of such behavior (Hameleers, 2023).

Relatedly, a fourth implication of our findings is that counter-normative uses of social media have become increasingly salient; by 2021, we observe frequent mentions of both misinformation and regulation. These patterns suggest that social media are being framed as spaces of political deviance, rather than tools for normative democratic engagement (Carlson, 2020). This framing should be understood in light of evidence that a relatively small subset of people engages in politics on social media, and even fewer are involved in the sharing or consumption of misinformation (Guess et al., 2018). It is worth considering whether the focus on these particular normative problems aligns with the evidence of their severity, since misconceptions about the volume and prevalence of threats may have important implications for regulation and for the governance of these platforms by corporate leaders.

Fifth, our study is unable to distinguish whether the over-time trend toward negative coverage of social media is driven by journalistic social construction or by social media platforms evolving to play a more negative role in politics. It is quite possible that journalists are accurately reporting the damaging influence of social media on politics. At the same time, our analyses revealed a surprising absence of coverage characterizing social media as playing a *positive* in American politics. Appearance of optimism words remained comparatively lower and stable across our time period, and non-elite actors and uses were also comparatively less common. This is remarkable, given that social media technologies have been prominent outlets for citizen engagement (Boulianne, 2015, 2019) and central to the success of each prominent social and political movement of the past two decades (e.g., #BlackLivesMatter, #MeToo) (Jackson et al., 2020). These movements were, of course, covered heavily by the news media. However, when we consider stories that *explicitly focus* on social media, they are rarely featured. Framing theory suggests that if normatively positive social media use is infrequently salient in news coverage, news consumers are less likely to associate social media with normatively positive

outcomes (Scheufele, 1999). While coverage of social media was not *exclusively* negative, the lack of positive framing may foreclose important public conversations about how social media is expanding participation and political voice (see Jackson et al., 2020).

Finally, our findings highlight the need for a more comprehensive theoretical approach to studying news coverage of political technologies. Our results show that macro-theories, such as DOI theory, can be useful in predicting the basic role of the mass media in spreading knowledge about technologies. However, when it comes to *political* technologies, we demonstrate the importance of considering the normative dimensions of social media use. This is because when people use technologies for politics, they are constantly referencing deeply held beliefs and values (e.g., democracy, informed citizenship, civility). We have demonstrated the utility of examining multiple indicators of normative framing (i.e., valence, actors, and uses); however, future research could examine more technology-specific normative frames using more traditional methods of frame analysis. Our study also opens up a range of interesting questions about how journalists think about “the ideal” social media environment or how they determine which social media problems deserve a high spot on the public agenda (e.g., misinformation). As we show, it is crucial to both theorize the journalistic process of frame building as well as the norm-related frame features we analyze.

Limitations

Several limitations of our study offer useful points of departure for future research. First, dictionary-based content analyses are sensitive to the inclusion/exclusion of terms. Our original dictionaries were developed based on a human-coded “ground truth” dataset as well as an extensive review of relevant scholarly literature. We also used multiple dictionaries to examine the same underlying concepts. Nonetheless, future analyses of news coverage of social media will benefit from an expanded set of dictionaries and the utilization of machine learning techniques (e.g., classifiers). We also highlight the need for qualitative analyses of news coverage, which is better able to capture the contextual nature of normative framing. Second, our analyses are focused on prominent national and regional news outlets. Future studies should examine a wider variety of sources (e.g., digital-only and hyper-partisan outlets) to determine if the patterns we identify generalize or if important variation across sources exists. While our study examined stories that were explicitly categorized as political, it will be important to study the portrayal of social media and politics in less overtly political news content. Similarly, studies assessing whether political news has become more negative and moralized *overall* could provide helpful context for our findings. Third, while we relied on past research to suggest potential effects of the patterns we study, we are unable to establish their causal effects on the public. Finally, our study explicitly focused on a single national context. Comparative work will be crucial for examining how social media are being socially constructed in different contexts around the world.

Conclusion

Ultimately, our findings reflect prominent normative views of social media that have been circulating in American society over the past 16 years. Many elements of these stories are supported by academic research, which has duly documented the “dark side” of social media. However, we would note that researchers are both producers and *consumers* of popular

narratives about social media (Fisher & Wright, 2001). This means that the questions researchers ask are subject to the same kind of social construction theorized to shape the news coverage we study (Jensen, 1990). Our findings offer an opportunity for social media scholars, including ourselves, to be self-reflective. Are the questions we ask driven by deep empirical analyses and normative reflection? Or do they respond to how social media is popularly imagined in the news media? The answer is almost certainly both. Our hope is that this study can encourage critical examination of normative approaches to social media in academic and public discourse. This means considering not only what social media are today, but also what they can become two decades hence.

Supplementary material

Supplementary material is available at *Journal of Computer-Mediated Communication* online.

Data availability

Data analyzed in this study are not openly accessible due to copyright law, but can be accessed via Factiva and Nexis Uni databases for those with relevant credentials.

Conflicts of interest: None declared.

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Notes

1. Due to data availability, RQ1 is examined using newspaper stories exclusively (see the Method section).
2. Our search included stories published in the print edition of these papers as well as digital-only stories. A small portion (<5%) of these stories was classified as commentary/opinion.
3. Capabilities of Nexis Uni prevented us from gathering comparable comparison corpuses from broadcasters.
4. Without costly access to news database API, we were not able to fully access *all* political articles from our sources. This prevented comparisons with general political articles in our analyses of RQ2–RQ6. Instead, we rely on more specific comparison corpora.
5. As a robustness check, we re-ran all analyses using full text of the articles and reported them in [Supplementary Figures S12–S15](#).
6. Robustness of moral analyses was assessed by re-conducting them using the Moral Foundations Dictionary 1.0 (Graham & Haidt, 2012). Similar results were obtained (see [Supplementary Figure S10](#)).
7. As a robustness check, we conducted a sentiment analysis using a bag-of-words approach to evaluate trends in general positive and negative sentiment over time. Results, reported in [Figures S1-2](#) are consistent with those reported here.

8. [Supplementary Figures S5–S7](#) decompose emotion and morality trends in the primary corpus by medium and news outlet. [Supplementary Table S11](#) demonstrates the same increase in moral foundation words as an average percent of words in each article's extracted sentences.
9. [Supplementary Table S1](#) (see OSF site) reports yearly percentages of stories mentioning various uses of social media broken down by source.

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