



*Research Article*

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## Who knowingly shares false political information online?

*Some people share misinformation accidentally, but others do so knowingly. To fully understand the spread of misinformation online, it is important to analyze those who purposely share it. Using a 2022 U.S. survey, we found that 14 percent of respondents reported knowingly sharing misinformation, and that these respondents were more likely to also report support for political violence, a desire to run for office, and warm feelings toward extremists. These respondents were also more likely to have elevated levels of a psychological need for chaos, dark tetrad traits, and paranoia. Our findings illuminate one vector through which misinformation is spread.*

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### Research questions

- What percentage of Americans admit to knowingly sharing political information on social media they believe may be false?
- How politically engaged, and in what ways, are people who report knowingly sharing false political information online?
- Are people who report knowingly sharing false political information online more likely to report extremist views and support for extremist groups?
- What are the psychological, political, and social characteristics of those who report knowingly sharing false political information online?

### Essay summary

- While most people are exposed to small amounts of misinformation online (in comparison to their overall news diet), previous studies have shown that only a small number of people are responsible for sharing most of it. Gaining a better understanding of the motivations of social media users who share information they believe to be false could lead to interventions aimed at

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limiting the spread of online misinformation.

- Using a national survey from the United States ( $n = 2,001$ ; May–June 2022), we asked respondents if they share political information on social media that they believe is false; 14% indicated that they do.
- Respondents who reported purposefully sharing false political information online were more likely to harbor (i) a desire to run for political office, (ii) support for political violence, and (iii) positive feelings toward QAnon, Proud Boys, White Nationalists, and Vladimir Putin. Furthermore, these respondents displayed elevated levels of anti-social characteristics, including a psychological need for chaos, “dark” personality traits (narcissism, psychopathy, Machiavellianism, and sadism), paranoia, dogmatism, and argumentativeness.
- People who reported sharing political information they believe is false on social media were more likely to use social media platforms known for promoting extremist views and conspiracy theories (e.g., 8Kun, Telegram, Truth Social).

## Implications

A growing body of research shows that online misinformation is both easily accessible (Allcott & Gentzkow, 2017; Del Vicario et al., 2016) and can spread quickly through online social networks (Vosoughi et al., 2018). Though *misinformation*—information that is false or misleading according to the best currently established knowledge (Ecker et al., 2021; Vraga & Bode, 2020)—is often spread unintentionally, *disinformation*, a subcategory of misinformation, is spread with the deliberate intent to deceive (Starbird, 2019). Critically, the pervasiveness of online mis- and disinformation has made attempts by online news and social media companies to prevent, curtail, or remove it from various platforms difficult (Courchesne et al., 2021; Ha et al., 2022; Sanderson et al., 2021; Vincent et al., 2022). While the causal impact of online misinformation is often difficult to determine (Enders et al., 2022; Uscinski et al., 2022), numerous studies have shown that exposure is (at least) correlated with false beliefs (Bryanov & Vziatysheva, 2021), beliefs in conspiracy theories (Xiao et al., 2021), and nonnormative behaviors, including vaccine refusal (Romer & Jamieson, 2021).

Numerous studies have investigated the spread of political mis- and disinformation as a “top-down” phenomenon (Garrett, 2017; Lasser et al., 2022; Mosleh & Rand, 2022) emanating from domestic political actors (Berlinski et al., 2021), untrustworthy websites (Guess et al., 2020), and hostile foreign governments (Bail et al., 2019), and flowing through social media and other networks (Johnson et al., 2022). Indeed, studies have found that most online political content, as well as most online misinformation, is produced by a relatively small number of accounts (Grinberg et al., 2019; Hughes, 2019). Other research has focused on how the public interacts with and evaluates misinformation to identify the individual differences related not only to falling for misinformation but also to unintentionally spreading it (Littrell et al., 2021a; Pennycook & Rand, 2021).

However, rather than being unknowingly duped into sharing misinformation, many people (who are not political elites, paid activists, or foreign political actors) knowingly share false information in a deliberate attempt to deceive or mislead others, often in the service of a specific goal (Buchanan & Benson, 2019; Littrell et al., 2021b; MacKenzie & Bhatt, 2020; Metzger et al., 2021). For instance, people who create and spread fake news content and highly partisan disinformation online are often motivated by the desire that such posts will “go viral,” attracting attention that will hopefully provide a reliable stream of advertising revenue (Guess & Lyons, 2020; Pennycook & Rand, 2020; Tucker et al., 2018). Others may do so to discredit political or ideological outgroups, advance their own ideological agenda or that of their partisan ingroup, or simply because they enjoy instigating discord and chaos online (Garrett et al., 2019; Marwick & Lewis, 2017; Petersen et al., 2023).

Though the art of deception is likely as old as communication itself, in the past, a person's ability to meaningfully communicate with (and perhaps deceive) large groups was arguably limited. In contrast, social media now gives every person the power to rapidly broadcast (false) information to potentially global, mass audiences (DePaulo et al., 1996; Guess & Lyons, 2020). This implicates social media as a critical vector in the spread of misinformation. Whatever the motivations for sharing false information online, a better understanding of the human sources who create it by identifying the psychological, political, and ideological factors common to those who do so intentionally can provide crucial insights to aid in developing interventions that decrease its spread.

In a national survey of the United States, we asked participants to rate their agreement ("strongly agree" to "strongly disagree") with the statement, "I share information on social media about politics even though I believe it may be false." In total, 14% of respondents agreed or strongly agreed with this statement; these findings coincide with those of other studies on similar topics (Buchanan & Kempley, 2021; Halevy et al., 2014; Serota & Levine, 2015). Normatively, it is encouraging that only a small minority of our respondents indicated that they share false information about politics on social media. However, the fact that 14% of the U.S. adult population claims to purposely spread political misinformation online is nonetheless troubling. Rather than being exclusively a top-down phenomenon, the purposeful sharing of false information by members of the public appears to be an important vector of misinformation that deserves more attention from researchers and practitioners.

Of further concern, our findings show that people who claimed to knowingly share information on social media about politics were more politically active in meaningful ways. First and perhaps foremost, such respondents were not only more likely to state a desire to run for political office but were also more likely to feel qualified for office, compared to people that do not claim to knowingly share false information. This finding is troubling from a normative perspective since such people might not be honest with constituents if elected (consider, for example, Representative George Santos of New York), and this could further erode our information environment (e.g., Celse & Chang, 2019). However, this finding may also offer crucial insights to better understand the tendency and motivations of at least some politicians to share misinformation or outright lie to the public (Arendt, 1972; Sunstein, 2021). Beyond aspirations for political office, spreading political misinformation online is positively associated with support for political violence, civil disobedience, and protests. Moreover, though spreading misinformation is also associated with participating in political campaigns, it is only weakly related to attending political meetings, contacting elected representatives, or staying informed about politics. Taken together, these findings paint a somewhat nuanced picture: People who were more likely to self-report having intentionally shared false political information on social media were more likely to be politically active and efficacious in certain aggressive ways, while simultaneously being less likely to participate in more benign or arguably positive ways.

Our findings also revealed that respondents who reported sharing false political information on social media were more likely to express support for extremist groups such as QAnon, Proud Boys, and White Nationalists. These observations coincide with previous studies linking extremist groups to the spread of misinformation, disinformation, and conspiracy theories (Moran et al., 2021; Nguyen & Gokhale, 2022; Stern, 2019). One possible explanation for this association is that supporters of extremist groups recognize their outsider status in comparison to mainstream political groups, leveraging false information to manage public impressions, attract new members, and further their group's cause. Alternatively, it could be that the beliefs promoted by extremist groups are so disconnected from our shared political reality that these groups may need to rely on falsehoods to manipulate their own followers and prevent attrition of group membership. While the exact nature of these associations remains unclear, future research should further interrogate the connection between sharing false information and support for extremism and extremist groups.

In line with previous studies (Lawson & Kakkar, 2021), our findings show that people who reported sharing false political information on social media were more likely to report higher levels of antisocial psychological characteristics. Specifically, they reported higher levels of a “need for chaos,” “dark tetrad” personality traits (a combined measure of narcissism, Machiavellianism, psychopathy, and sadism), paranoia, dogmatism, and argumentativeness when compared to respondents who did not report knowingly sharing false information on social media. Much like the Joker in the movie *The Dark Knight*, people who intentionally spread false information online may, at least on some level, simply want to “watch the world burn” (Arceneaux et al., 2021). Indeed, previous studies suggest that much of the toxicity of social media is not due to a “mismatch” between human psychology and online platforms (i.e., that online platforms bring out the worst in otherwise nice people); instead, such toxicity results from a relatively smaller fraction of people with status-seeking antisocial tendencies, who act overtly antisocial online, and are drawn to interactions in which they express elevated levels of aggressiveness toward others with toxic language (Bor & Petersen, 2022; Kim et al., 2021). Such observations are echoed in our own results, which showed that people who knowingly share false information online were also more likely to indicate that posting on social media gives them a greater feeling of power and control and allows them to express themselves more freely.

While research on the associations between religiosity and lying/dishonesty has shown mixed results (e.g., Desmond & Kraus, 2012; Grant et al., 2019), we found that religiosity positively predicts knowingly sharing false information online. Additionally, despite numerous studies of online activity suggesting that people on the political right are more likely to share misinformation (e.g., DeVerna et al., 2022; Garrett & Bond, 2021), our findings show no significant association between self-reported sharing of false information online and political identity or the strength of one’s partisan or ideological views.

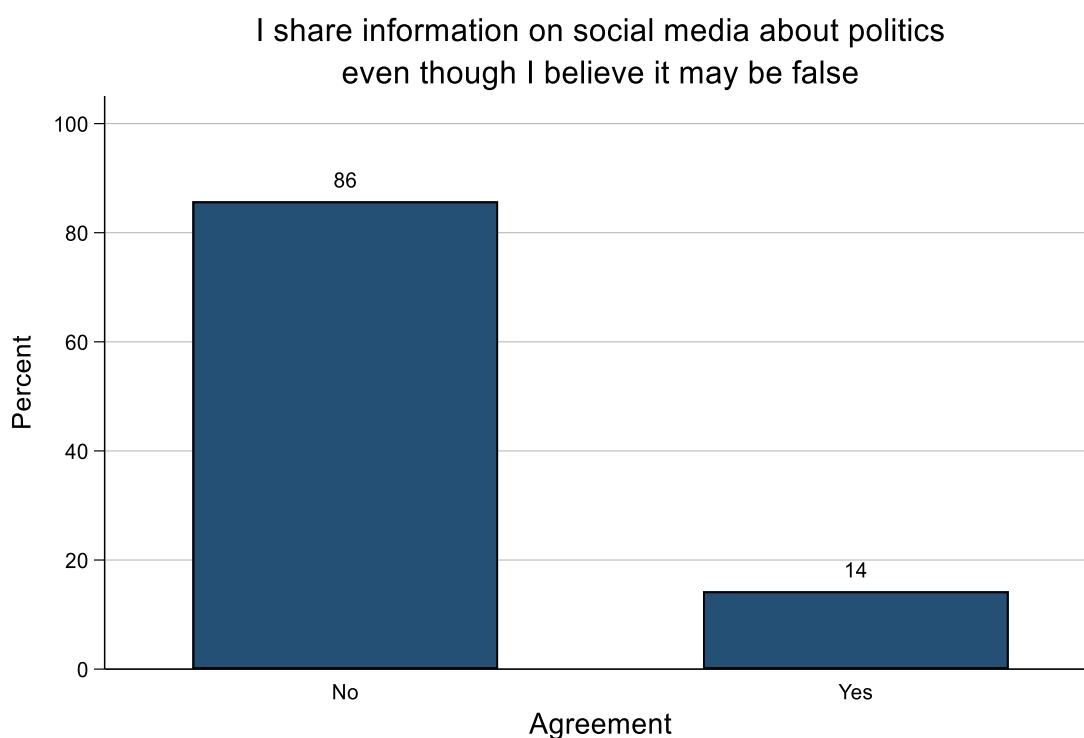
Our findings offer a broad psychological and ideological blueprint of individuals who reported intentionally spreading false information online, implicating specific personality and attitudinal characteristics as potential motivators of such behavior. Overall, these individuals are more antagonistic and argumentative, have a higher need for chaos, and tend to be more dogmatic and religious. Additionally, they are more politically engaged and active, often in counterproductive and destructive ways, and show higher support for extremist groups. They are also more likely to get their news from fringe social media sources and feel a heightened sense of power and self-expression from their online interactions. Taken together, these findings suggest that interventions which focus on eliminating the perceived social incentives gained from intentionally spreading misinformation online (e.g., heightened feelings of satisfaction, power, and enjoyment associated with discrediting ideological outgroups, instigating chaos, and “trolling”) may be effective at attenuating this type of online behavior.

Though some research has shown promising results using general interventions such as “accuracy nudges” (Pennycook et al., 2021) and educational video games to inoculate people against misinformation (Roozenbeek et al., 2022), more direct measures may also need to be implemented by social media companies. For example, companies might consider restructuring the online environment to remove overt social incentives that may inadvertently reward pernicious behavior (e.g., reconsidering how “likes” and sharing are implemented) and instead create online ecosystems that reward more positive social media interactions. For practitioners, at the very least, our finding that some people claim to share online misinformation for reasons other than simply being duped, suggests that future interventions aimed at limiting the spread of misinformation should attempt to address users who both unknowingly *and* knowingly share misinformation, as these two groups of users may require different interventions. More specifically, if one does not care about accuracy, then accuracy nudges will do little to prevent them from sharing misinformation. Taken together, our findings further implicate personality and attitudinal characteristics as potentially significant motivators for the spread of misinformation. As such, we join others who have called for greater integration of personality research into the study of online misinformation and the ways in which it spreads (e.g., Lawson & Kakkar, 2021; van der Linden et al., 2021).

## Findings

*Finding 1: Most people do not report intentionally spreading false political information online.*

We asked participants to rate their agreement (“strongly agree” to “strongly disagree”) with the statement, “I share information on social media about politics even though I believe it may be false.” At best, agreement with this statement reflects a carefree disregard for the truth, a key characteristic of certain types of “bullshitting” (Frankfurt, 2009; Littrell et al., 2021a). However, at worst, strong agreement with this statement is admitting to intentional deception (i.e., lying). Though most participants disagreed with this statement, a non-trivial percentage of respondents (14%) indicated that they do intentionally share false political information on social media (Figure 1). These findings are consistent with empirical studies of similar constructs, such as lying (Buchanan & Kempley, 2021; Halevy et al., 2014; Serota & Levine, 2015) and “bullshitting” (Littrell et al., 2021a), which have shown that a small but consistent percentage of people admit to intentionally misleading others.



**Figure 1. Respondent agreement that they intentionally share false information online.** Bars indicate the percentage of participants who selected strongly disagree, disagree, and neither agree/nor disagree (“No”), versus agree and strongly agree (“Yes”).  $N = 2,001$ .

Notably, it is possible that the prevalence of knowingly sharing political misinformation online is somewhat underreported in our data, given that some of the spreaders of it in our sample could have denied it when responding to that item (which, ironically, would be another instance of them spreading misinformation). Indeed, some research has found that survey respondents may sometimes hide their true beliefs or express agreement or support for a specific idea they actually oppose either as a joke or to signal their group identity (i.e., Lopez & Hillygus, 2018; Schaffner & Luks, 2018; Smallpage et al., 2022). Further, self-reported measures of behavior are sometimes only weakly correlated with actual behavior

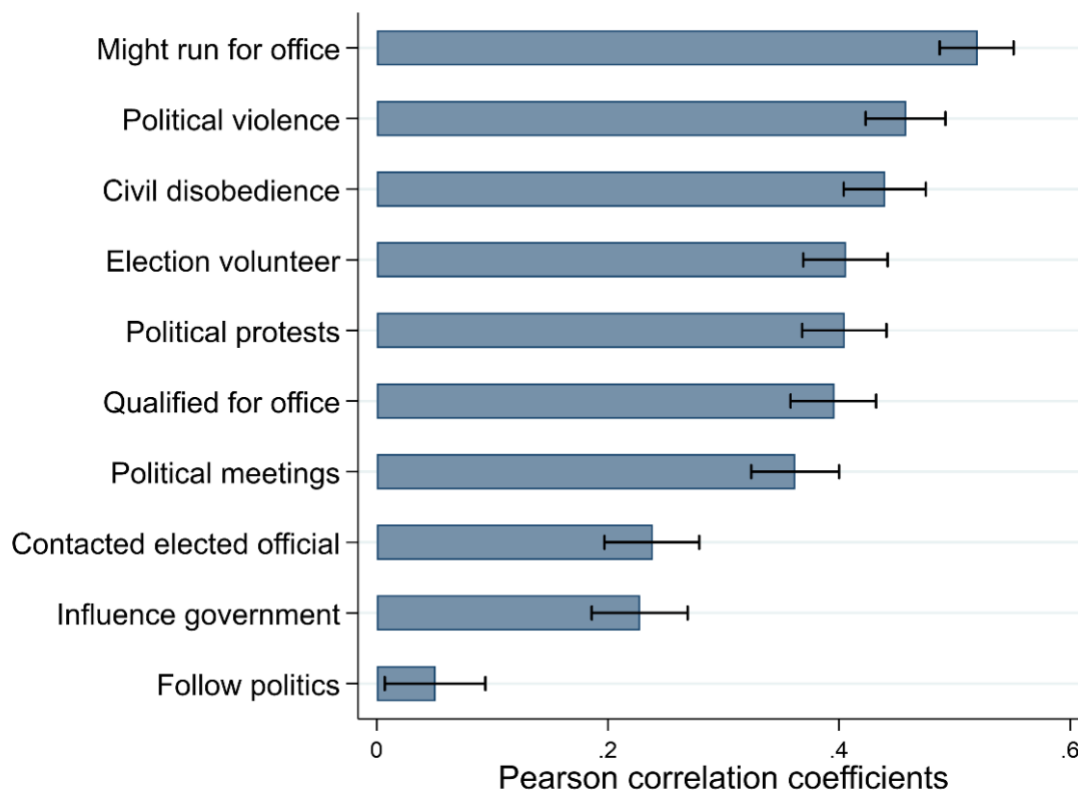
(Dang et al., 2020). However, there are good reasons to have confidence in this self-reported measure. First, self-report surveys have high reliability for measuring complex psychological constructs (e.g., beliefs, attitudes, preferences) and are sometimes better at predicting real-world outcomes than behavioral measures of those same constructs (Kaiser & Oswald, 2022). Second, the percentage of respondents in our sample who admitted to spreading false political information online aligns with findings from previous research. For example, Serota and Levine (2015) found that 14.1% of their sample admitted to telling at least one “big lie” per day, while Littrell and colleagues (2021a) found 17.3% of their sample admitted to engaging in “persuasive bullshitting” on a regular basis. These numbers are similar to the 14% of our sample who self-reported knowingly sharing false information. Third, previous studies have found that self-report measures of lying and bullshitting positively correlate with behavioral measures of those same constructs (Halevy et al., 2014; Littrell et al., 2021a; Zettler et al., 2015). Given that our dependent variable captures a conceptually similar construct to those other measures, we are confident that our self-report data reflects real-world behavior, at least to a reasonable degree.

Crucially, we also found that the correlational patterns we reported across multiple variables are highly consistent and make sense with respect to what prior theory would predict of people who share information they believe to be false. Indeed, “need for chaos” has recently been shown to be a strong motivator of sharing hostile, misleading political rumors online (Petersen et al., 2023) and, as Figure 4 illustrates, “need for chaos” was also the strongest positive predictor in our study of sharing false political information online ( $\beta = .18, p < .001$ ). Moreover, as an added test of the reliability and validity of our dependent variable, we examined correlations between responses to our measure of sharing false political information online and single-scale items that reflect similar behavioral tendencies. For instance, our dependent variable is significantly and positively correlated ( $r = .53, p < .001$ ) with the statement, “Just for kicks, I’ve said mean things to people on social media,” from the Sadism subscale of our “Dark Tetrad” measure. Additionally, our dependent variable also correlated well with two conceptually similar items from the Machiavellianism subscale, “I tend to manipulate others to get my way” ( $r = .43, p < .001$ ) and “I have used deceit or lied to get my way” ( $r = .35, p < .001$ ). Although the sizes of these effects do not suggest that these constructs are isomorphic, it is helpful to note that our dependent variable item specifically measures sharing false information about politics on social media, which arises from a diversity of motivations, and not lying about anything and everything across all domains.

*Finding 2: Reporting sharing false political information is associated with politically motivated behaviors and attitudes.*

Self-reported sharing of false political information on social media was significantly and positively correlated with having contacted an elected official within the previous year ( $r = .24, p < .001$ ) and with the belief that, “People like me can influence government” ( $r = .23, p < .001$ ). Additionally, people who self-report sharing false political information online also reported more frequent attendance at political meetings ( $r = .36, p < .001$ ) and volunteering during elections ( $r = .41, p < .001$ ) compared to participants who do not report sharing false political information online.

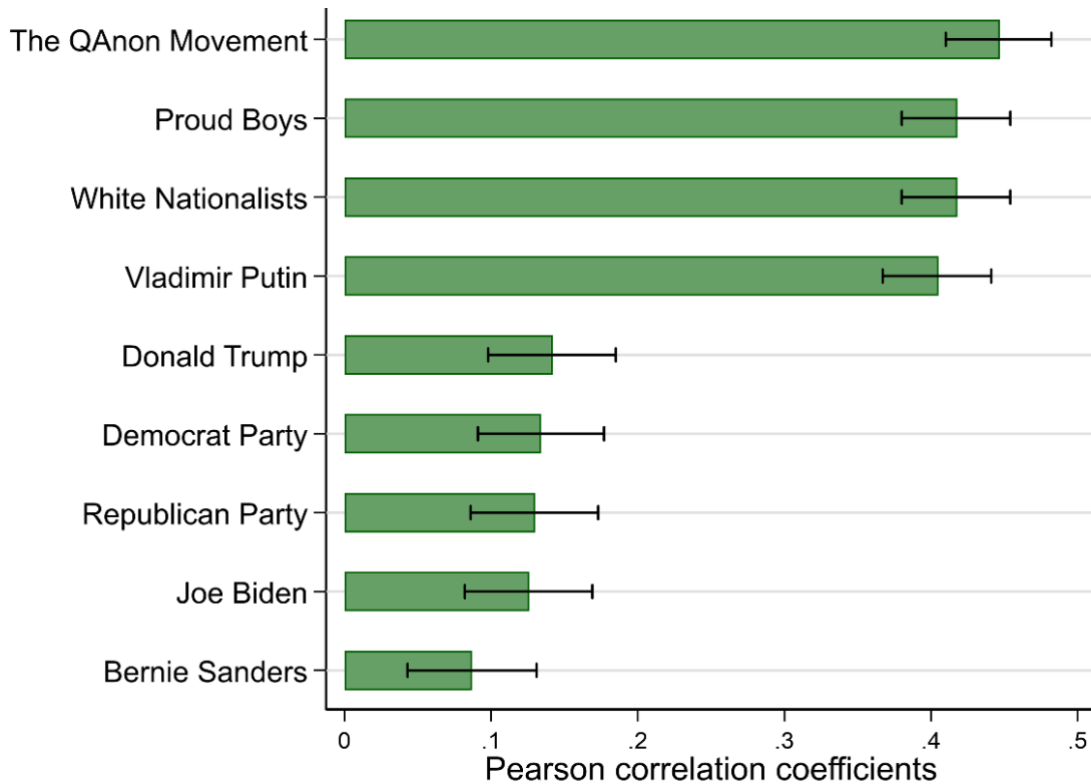
Although these findings may give the impression that respondents reporting spreading online political misinformation are somewhat civically virtuous, these respondents also report engaging in aggressive and disruptive political behaviors. Specifically, reporting spreading false information was significantly associated with greater reported involvement in political protests ( $r = .40, p < .001$ ), acts of civil disobedience ( $r = .44, p < .001$ ), and political violence ( $r = .46, p < .001$ ). Spreading false information online was also significantly and positively related to believing that one is qualified for public office ( $r = .40, p < .001$ ) and the desire to possibly run for office one day ( $r = .52, p < .001$ ), but was only weakly related to staying informed about government and current affairs (“follows politics”;  $r = .05, p = .024$ ).



**Figure 2. Associations between reports of spreading false information and political behaviors.** Bivariate correlations between intentional sharing of false political information online and various political behaviors. Error bars represent 95% confidence intervals.  $N = 2,001$ .

*Finding 3: Reporting sharing false political information online is associated with support for extremist groups.*

Using a sliding scale from 0 to 100, participants rated their feelings about various public figures and groups (Figure 3). While the self-reported tendency to knowingly share false political information online was weakly, but positively, associated with support for more mainstream public figures such as Donald Trump ( $r = .14, p < .001$ ), Joe Biden ( $r = .13, p < .001$ ), and Bernie Sanders ( $r = .09, p < .001$ ), it was more strongly associated with support for Vladimir Putin ( $r = .40, p < .001$ ). Likewise, self-reported sharing of false political information online was weakly but positively associated with support for the Democrat Party ( $r = .13, p < .001$ ) and the Republican Party ( $r = .13, p < .001$ ), but was most strongly associated with support for extremist groups such as the QAnon movement ( $r = .45, p < .001$ ), Proud Boys ( $r = .42, p < .001$ ), and White Nationalists ( $r = .42, p < .001$ ).

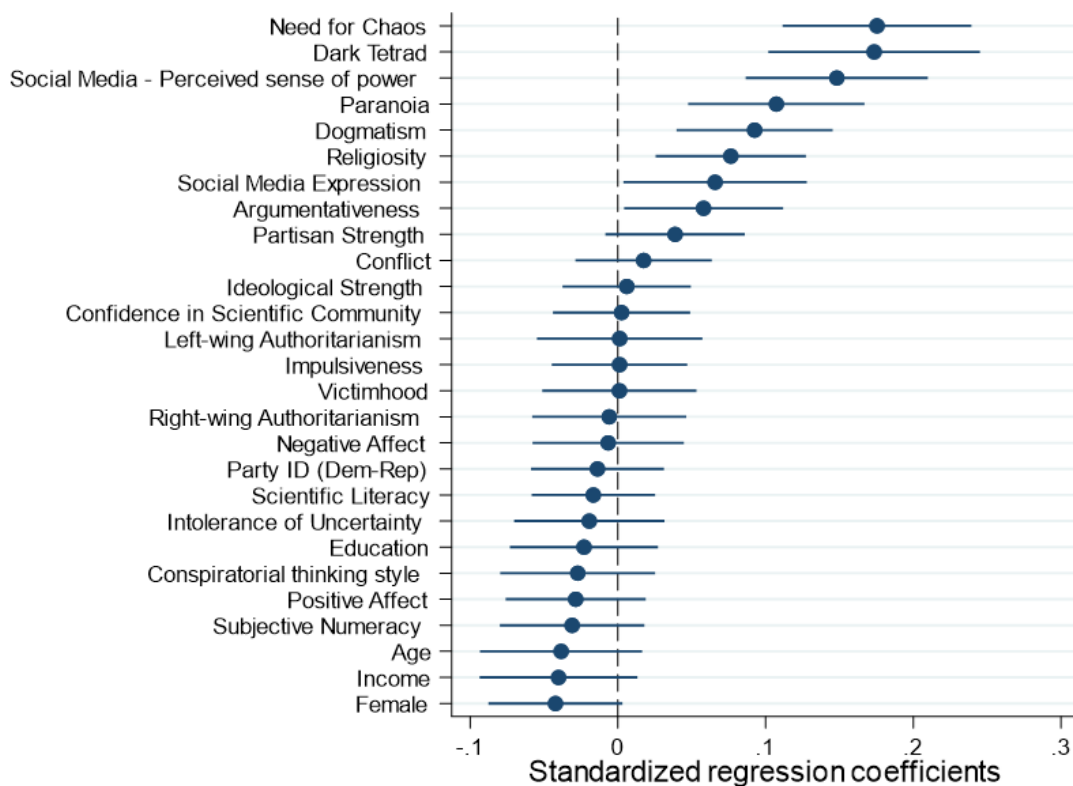


**Figure 3. Associations with feelings toward public figures/groups.** Bivariate correlations between reporting sharing false political information and “feeling thermometer” ratings (0 to 100) of various public political figures and groups.  $N = 2,001$ .

*Finding 4: Reporting sharing false political information online is associated with dark psychological traits.*

We constructed a multiple linear regression model to better understand the extent to which various psychological, political, and demographic characteristics might underlie the proclivity to knowingly share political misinformation on social media. Holding all other variables constant, a greater “need for chaos” ( $\beta = .18, p < .001$ ) as well as higher levels of antagonistic, “dark tetrad” personality traits (a single factor measure of narcissism, Machiavellianism, psychopathy, and sadism;  $\beta = .18, p < .001$ ) were the strongest positive predictors of self-reported sharing of political misinformation online. Self-reported sharing of false information was also predicted by higher levels of paranoia ( $\beta = .11, p < .001$ ), dogmatism ( $\beta = .09, p = .001$ ), and argumentativeness ( $\beta = .06, p = .035$ ). People who feel that posting on social media gives them greater feelings of power and control ( $\beta = .14, p < .001$ ) and allows them to more freely express opinions and attitudes they are reluctant to express in person ( $\beta = .06, p = .038$ ) are also more likely to report knowingly sharing false political information online. Importantly, though sharing political misinformation online is positively predicted by religiosity ( $\beta = .07, p = .003$ ), it is not significantly associated with political identity or the strength of one’s partisan or ideological views.



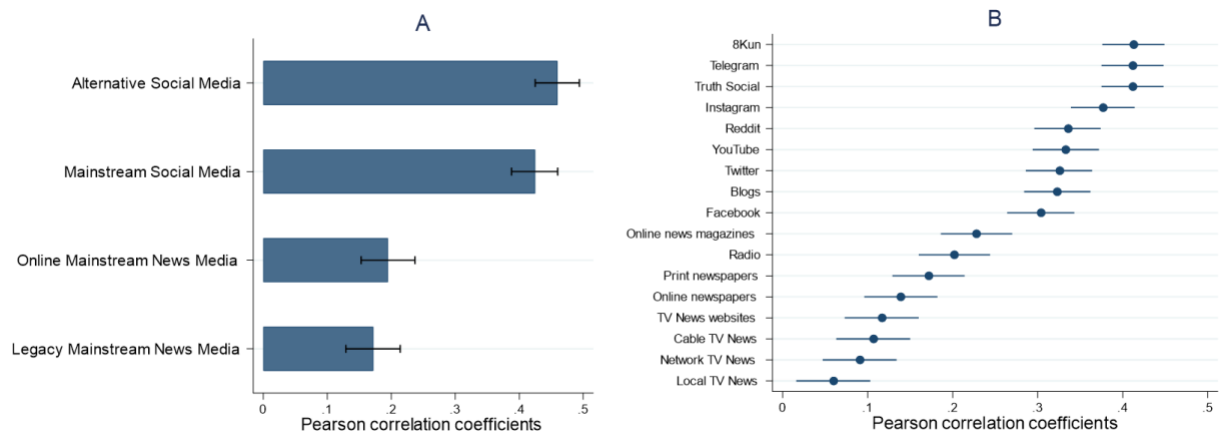


**Figure 4. Predictors of reporting intentionally sharing false information online.** Standardized ordinary least squares (OLS) regression coefficients for psychological factors predicting self-reports of the intentional sharing of false information online (adjusted  $R^2 = .44$ ). Error bars represent 95% confidence intervals.  $N = 2,001$ .

*Finding 5: People who report intentionally sharing false political information online are more likely to get their news from social media sites, particularly from outlets that are known for perpetuating fringe views.*

On a scale from “everyday” to “never,” participants reported how often they get “information about current events, public issues, or politics” from various media sources, including offline *legacy media sources* (e.g., network television, cable news, local television, print newspapers, radio) and *online media sources* (e.g., online newspapers, blogs, YouTube, and various social media platforms). A principal components analysis of the online media sources revealed three distinct categories: 1) *online mainstream news media*, made up of TV news websites, online news magazines, online newspapers; 2) *mainstream social media sites*, such as YouTube, Facebook, Twitter, Instagram; and 3) *alternative social media sites*, which comprised blogs, Reddit, Truth Social, Telegram, and 8Kun (factor loadings are listed in Table A8 of the appendix). After reverse-coding the scale for analysis, we examined bivariate correlations to determine whether the proclivity to share false political information online is meaningfully associated with the types of media sources participants get their information from.

As shown in Figure 5A, reporting sharing false political information online is strongly associated with more frequent use of alternative ( $r = .46, p < .001$ ) and mainstream ( $r = .42, p < .001$ ) social media sites and weakly-to-moderately correlated with getting information from online ( $r = .20, p < .001$ ) or offline/legacy ( $r = .17, p < .001$ ) mainstream news sources. On an individual level (Figure 5B), reporting sharing false political information online was most strongly associated with getting information on current events, public issues, and politics from Truth Social ( $r = .41, p < .001$ ), Telegram ( $r = .41, p < .001$ ), and 8Kun ( $r = .41, p < .001$ ), of which the latter two are popular among fringe groups known for promoting extremist views and conspiracy theories (Urman & Katz, 2022; Zeng & Schäfer, 2021).



**Figure 5. Associations with using various media sources.** Bivariate correlations between reporting sharing false political information online and frequency of use of various traditional news sources (offline and online) and social media sites. Graph A displays correlations with overall media categories. Graph B displays correlations with individual media sources. Error bars represent 95% confidence intervals.  $N = 1,990$ .

## Methods

We surveyed 2,001 American adults (900 male, 1,101 female,  $M_{\text{age}} = 48.54$ ,  $SD_{\text{age}} = 18.51$ , Bachelor's degree or higher = 43.58%) from May 26 through June 30, 2022, using Qualtrics ([qualtrics.com](https://qualtrics.com)). For this survey, Qualtrics partnered with Cint and Dynata to recruit a demographically representative sample (self-reported sex, age, race, education, and income) based on U.S. Census records. Cint and Dynata maintain panels of subjects that are only used for research, and both comply fully with European Society for Opinion and Marketing Research (ESOMAR) standards for protecting research participants' privacy and information security. Additionally, and in keeping with Qualtrics data quality standards, responses were excluded from the data set from participants who failed six attention check items or completed the survey in less than one-half of the estimated median completion time of 18.6 minutes (calculated from a soft-launch test of the questionnaire,  $n = 50$ ). In exchange for their participation, respondents received incentives redeemable from the sample provider. These data were collected as part of a larger survey.

Our dependent variable asked respondents to rate their agreement with the following statement using a 5-point Likert-type scale (Figure 1):

*"I share information on social media about politics even though I believe it may be false."*

In addition to this question, participants were also asked to rate the strength of certain political beliefs (i.e., whether they feel qualified to run for office, whether they think they might run for office one day, and whether they believe someone like them can influence government) and the frequency that they engaged in specific political behaviors in the previous 12 months (contacting elected officials, volunteering during an election, staying informed about government, and participating in political meetings, protests, civil disobedience, or violence). We calculated bivariate Pearson's correlation coefficients for each of these variables with the item measuring whether one shares false political information on social media, which we have displayed in Table A5 of the Appendix.

Participants also used "feelings thermometers" to rate their attitudes toward a number of public political figures and groups. Each public figure or group was rated on a scale from 0 to 100, with scores of 0 to 50 reflecting negative feelings and scores from above 50 to 100 reflecting positive feelings. Although all correlations between the sharing false political information variable the public figures and groups were

statistically significant, the strongest associations were with more adversarial figures (e.g., Putin) and groups (e.g., The QAnon Movement, Proud Boys, White Nationalists). We have plotted these associations in Figure 3.

To provide a more complete description of individuals who are more likely to report intentionally sharing false political information online, we examine the predictive utility of a number of psychological attributes, political attitudes, and demographics variables in an ordinary least squares (OLS) multiple linear regression model (Figure 4). We provide precise estimates in tabular form for all predictors as well as the overall model in the Appendix.

Finally, participants were asked to rate 17 media sources according to the frequency (“everyday” to “never”) with which they use each for staying informed on current events, public issues, and politics. A principal components analysis revealed that the media sources represented four categories: *legacy mainstream news media* (network TV, cable TV, local TV, radio, and print newspapers), *online mainstream news media* (TV news websites, online news magazines, online newspapers), *mainstream social media sites* (YouTube, Facebook, Twitter, Instagram), and *alternative social media sites* (blogs, Reddit, Truth Social, Telegram, 8Kun). We calculated bivariate correlations between reporting sharing false political information online with the four categories of media sources as well as the 17 individual sources. We have plotted these associations in Figure 5 and provide a full list of intercorrelations for all variables as well as factor loadings from the PCA in the Appendix.

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**Competing interests**

All authors declare no competing interests.

**Ethics**

Approval for this study was granted by the University of Miami Human Subject Research Office on May 13, 2022 (Protocol #20220472).

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**Data availability**

All materials needed to replicate this study are available via the Harvard Dataverse: <https://doi.org/10.7910/DVN/AWNAKN>

## Appendix

### Demographic items and sample composition

#### *Sex*

I am:

- Male
- Female

#### *Race*

I am: (please check all that apply)

- White
- Black or African-American
- Asian-American or Pacific Islander
- Native American or American Indian
- Other

Are you of Hispanic or Latino/a origin?

- Yes
- No

#### *Income*

What is your annual household income?

- \$24,999 or less
- \$25,000 to \$49,999
- \$50,000 to \$74,999
- \$75,000 to \$99,999
- \$100,000 to \$149,999
- \$150,000 to \$199,999
- \$200,000 or more

#### *Education*

What is the highest level of education you have completed?

- Less than high school
- High school graduate or GED
- Some college, but no degree (yet)
- 2-year college degree
- 4-year college degree
- Post-graduate degree (MA, MBA, MD, JD, PhD, etc.)

#### *Age (Calculated from Birth Year)*

What year were you born?

**Table A1. Sample demographics.**

	Survey sample	U.S. Census (age 18+)
<b>Sex<sup>1</sup></b>		
male	45.0%	49.1
female	55.0	50.9
<b>Education<sup>2</sup></b>		
some high school or less	2.9	10.0
high school graduate/GED	27.2	28.0
some college	18.4	17.0
2-year degree	10.8	10.0
college graduate	25.8	22.0
Graduate Degree	17.7	13.0
<b>Household Income<sup>3</sup></b>		
\$24,999 or less	18.8	18.1
\$25,000 to \$49,999	20.4	19.7
\$50,000 to \$74,999	16.6	16.5
\$75,000 to \$99,999	12.3	12.2
\$100,000 to \$149,999	14.4	15.3
\$150,000 to \$199,999	7.7	8.0
\$200,000 or more	9.9	10.3
<b>Race<sup>1</sup></b>		
White, non-Hispanic	67.7	62.6
Black, non-Hispanic	13.5	12.2
Asian, non-Hispanic	2.7	2.8
Native American, non-Hispanic	1.9	0.7
Hispanic or Latino origin	16.2	16.6
<b>Age<sup>1</sup></b>		
18 to 24 years	7.9	11.7
25 to 44 years	42.6	34.4
45 to 64 years	19.4	32.8
65 years and over	30.2	21.1

U.S. Census Sources:

<sup>1</sup><https://www.census.gov/data/tables/time-series/demo/popest/2020s-national-detail.html><sup>2</sup><https://www.census.gov/data/tables/2021/demo/educational-attainment/cps-detailed-tables.html><sup>3</sup><https://www.census.gov/data/tables/time-series/demo/income-poverty/cps-hinc/hinc-01.html>

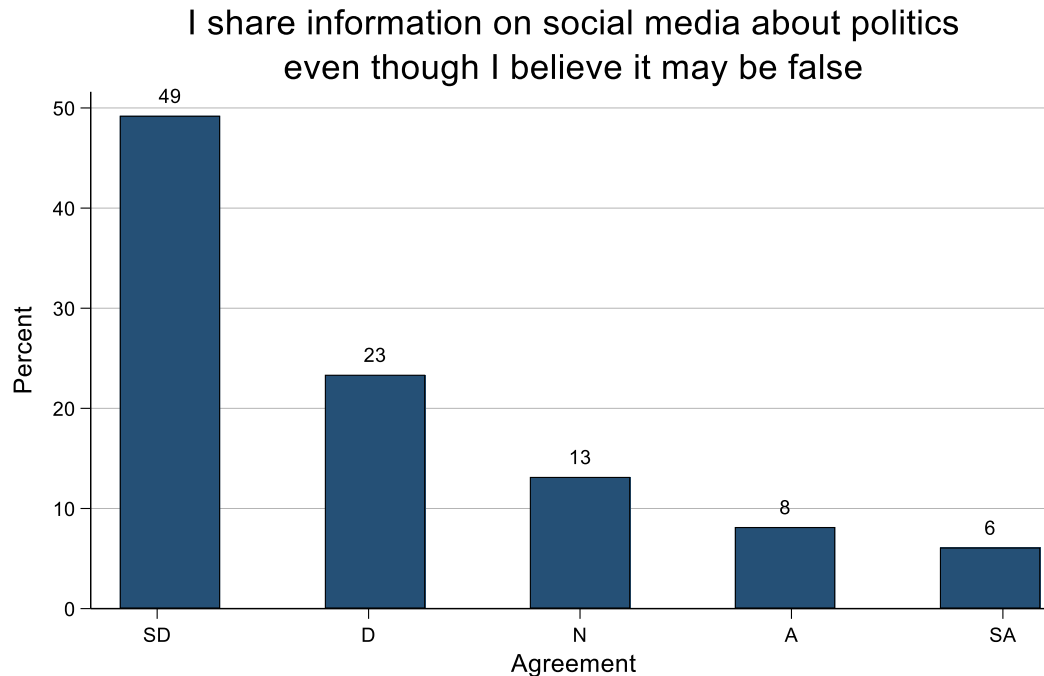
**Table A2.** Descriptive statistics and item wordings for all variables.

	<b>N</b>	<b>M</b>	<b>SD</b>	<b>Min</b>	<b>Max</b>
Shares false political information	1999	1.99	1.22	1	5
Gender (Female)	2001	0.55	0.50	0	1
Race (White)	2001	0.78	0.41	0	1
Income	2001	3.46	1.93	1	7
Education	2001	3.86	1.54	1	6
Age	2001	48.54	18.52	19	95
Religiosity	2000	0.54	0.32	0	1
Party ID (Dem-Rep)	2001	3.49	2.24	1	7
Ideology (Lib-Con)	2000	3.88	1.84	1	7
Partisan Strength	2001	3.00	1.12	1	4
Ideological Strength	2000	2.39	1.22	1	4
Conspiracy thinking	1999	3.15	1.04	1	5
Need for Chaos	2000	2.11	1.06	1	5
Dark Tetrad	2001	2.36	0.87	1	5
Paranoia	2000	2.06	1.13	1	5
Right-Wing Authoritarianism	2000	3.16	0.87	1	5
Left-Wing Authoritarianism	2001	2.76	0.93	1	5
Dogmatism	2000	3.14	0.90	1	5
Victimhood	2000	2.78	1.07	1	5
Conflict	1993	0.81	1.46	0	6
Argumentativeness	1999	2.86	1.06	1	5
Uncertainty intolerance	2001	3.13	1.98	1	5
Subjective numeracy	2001	4.29	1.30	1	6
Media use: perceived power	1482	2.93	1.14	1	5
Media use: self-expression	2001	2.52	1.16	1	5
Positive Affect	1995	30.54	8.65	10	50
Negative Affect	1998	20.02	8.79	10	50
Follows Politics	2000	3.66	1.12	1	5
Legacy Mainstream News Media Use	2000	3.19	1.13	1	5
Online Mainstream News Media Use	2001	2.71	1.28	1	5
Mainstream Social Media Use	2001	2.93	1.33	1	5
Alternative Social Media Use	2001	1.72	1.02	1	5
Scientific Literacy	1993	3.98	1.24	0	6
Denialism	2001	3.33	0.88	1	5
Confidence in Scientific Community	1999	3.81	1.02	1	5

**Main dependent variable of interest**

(rated “strongly agree” to “strongly disagree.” Reverse-scored for analysis)

I share information on social media about politics even though I believe it may be false.



**Figure A1. Distribution of participants' agreement that they intentionally share false information online.** Bars indicate the percentage of participants who selected each response. SD = strongly disagree, N = neither agree/nor disagree, SA = strongly agree. N = 2,001.

## Independent variables

### **Psychological factors: Personality characteristics and thinking styles**

#### Need for Chaos (Petersen et al., 2020)

Here are some ideas that some people agree with, and others disagree with. In thinking about each one, please tell us how much you agree or disagree with each of the statements below: (percent agree/strongly agree in parentheses)

- I fantasize about a natural disaster wiping out most of humanity such that a small group of people can start all over. (17.37)
- I think society should be burned to the ground. (14.46)
- When I think about our political institutions, I cannot help thinking "just let them all burn." (21.00)
- We cannot fix the problems in our society, we need to tear it down and start over. (20.57)
- I need chaos around me – it is too boring if nothing is going on. (15.22)
- Sometimes I just feel like destroying beautiful things. (13.60)

#### Dark Tetrad

##### Machiavellianism (Jonason & Webster, 2010)

Please tell us how much you agree or disagree with each of the statements below: (percent agree/strongly agree in parentheses)

- I tend to manipulate others to get my way. (15.34)
- I have used deceit or lied to get my way. (22.20)
- I have used flattery to get my way. (31.43)
- I tend to exploit others towards my own end. (14.34)

Narcissism (Jonason & Webster, 2010)

Please tell us how much you agree or disagree with each of the statements below: (percent agree/strongly agree in parentheses)

- I tend to want others to admire me. (30.22)
- I tend to want others to pay attention to me. (30.07)
- I tend to seek prestige or status. (23.57)
- I tend to expect special favors from others. (19.26)

Psychopathy (Jonason & Webster, 2010)

Please tell us how much you agree or disagree with each of the statements below: (percent agree/strongly agree in parentheses)

- I tend to lack remorse. (14.55)
- I tend to be unconcerned with the morality of my actions. (15.80)
- I tend to be callous or insensitive. (16.25)
- I tend to be cynical. (26.00)

Sadism (Paulhus et al., 2021)

Please tell us how much you agree or disagree with each of the statements below: (percent agree/strongly agree in parentheses)

- It's funny when idiots fall flat on their face. (34.92)
- Some people deserve to suffer. (26.66)
- Just for kicks, I've said mean things on social media. (18.05)
- I know how to hurt someone with words alone. (46.95)

Paranoia (Green et al., 2008)

Please tell us how much you agree or disagree with each of the statements below: (percent agree/strongly agree in parentheses)

- Certain people have it in for me. (20.57)
- There is a conspiracy against me. (13.45)
- People are persecuting me. (13.90)

Dogmatism (McClosky & Chong, 1985)

Please tell us how much you agree or disagree with each of the statements below: (percent agree/strongly agree in parentheses)

- On important public issues, I believe you should always be uncompromising, and either be for them or against them. (33.20)
- It is better to take a stand on an issue even if it's wrong. (32.85)
- When it comes to the really important questions about religion and philosophy of life, a person must decide them, one way or the other. (51.50)

Conspiracy Thinking (Edelson et al., 2017)

Here are some ideas that some people agree with, and others disagree with. In thinking about each one, please tell us how much you agree or disagree with each of the statements below: (percent agree/strongly agree in parentheses)

- Even though we live in a democracy, a few people will always run things anyway. (59.28)
- The people who really “run” the country, are not known to the voters. (44.19)

- Big events like wars, the recent recession, and the outcomes of elections are controlled by small groups of people who are working in secret against the rest of us. (35.64)
- Much of our lives are being controlled by plots hatched in secret places. (34.27)

#### Right-Wing Authoritarianism (Bizumic & Duckitt, 2018)

Please tell us how much you agree or disagree with each of the statements below:

- God's laws about abortion, pornography, and marriage must be strictly followed before it is too late. (percent agree/strongly agree: 40.60)
- There is nothing wrong with premarital sexual intercourse. (percent disagree/strongly disagree: 20.85)
- Our society needs stricter laws. (percent agree/strongly agree: 47.75)
- Crime and the recent public disorders show that we have to crack down harder on troublemakers, if we are going to preserve law and order. (percent agree/strongly agree: 63.40)

#### Left-Wing Authoritarianism (Costello et al., 2022)

Please tell us how much you agree or disagree with each of the statements below: (percent agree/strongly agree in parentheses)

- The rich should be stripped of their belongings and status. (19.40)
- Rich people should be forced to give up most of their wealth. (23.99)
- If I could remake society, I would put people who currently have the most privilege at the very bottom. (27.09)

#### Victimhood (Armaly & Enders, 2022)

Please tell us how much you agree or disagree with each of the statements below: (percent agree/strongly agree in parentheses)

- I rarely get what I deserve in life. (26.85)
- Great things never come to me. (25.36)
- I usually have to settle for less. (34.72)
- I never seem to get an extra break. (32.55)

#### General Conflict Tactic Scale (Conrad et al., 2010)

During the past 12 months, have you done the following things when having a disagreement with another person? Yes = 1, No = 0 (scores can range from 0 to 6)

Insulted or swore at someone?

Pushed, grabbed, or shoved someone?

Threatened to hit another person?

Hit, kicked, bit, or slapped someone?

Beat up someone?

Threatened to use or actually used a knife or gun on someone?

#### Argumentativeness (Uscinski et al., 2021)

Here are some ideas that some people agree with, and others disagree with. In thinking about each one, please tell us how much you agree or disagree with each of the statements below:

I like to argue online with other people.

I enjoy a good argument over a controversial issue.

I am willing to express my opinion online even if others strongly disagree with me.

Intolerance of Uncertainty (Buhr & Dugas, 2002)

(rated “strongly agree” to “strongly disagree.” Reverse-scored for analysis)

Uncertainty keeps me from living a full life.  
When I am uncertain, I can’t function very well.  
I must get away from uncertain situations.

Subjective Numeracy Scale (short form: SNS3) (Durand et al., 2020)

(Rated from 1 = Not at all good or never to 6 = Extremely good or very often)

How good are you at figuring out how much a shirt will cost if it is 25% off?  
How good are you at working with fractions?  
How often do you find numerical information to be useful?

***Psychological factors: Media use***

Perceived sense of power/control (Chun & Lee, 2017)

(rated “strongly agree” to “strongly disagree.” Reverse-scored for analysis. Only those who answered “Yes” to the question “Do you ever post on social media?” were shown this question.)

When posting on social media, I have a great deal of power.  
I am able to get my way when expressing my opinions on social media.  
I can get people commenting on my social media posts to say what I want.

Social media self-expression (Choi & Sung, 2018)

(rated “strongly agree” to “strongly disagree.” Reverse-scored for analysis)

When on the internet or social media, I generally express the aspects of myself that I don’t feel comfortable expressing in person.  
I frequently and generally use the internet and social media to express “who I really am.”  
I generally do and say things online that I wouldn’t say or do in person.

***Psychological factors: Affect/emotion***

Positive and Negative Affect Schedule (Crawford & Henry, 2004)

The twenty emotions in this schedule were broken up into four groups of five. The order of the blocks, and the order of the emotions listed in them, were randomized. For each emotion the response options are: “very slightly or not at all,” “a little,” “moderately,” “quite a bit,” “extremely.”

Indicate the extent you have felt this way over the past week. (percent quite a bit/extremely in parentheses)

- Interested (45.70)
- Distressed (22.30)
- Excited (31.03)
- Upset (22.21)
- Strong (38.07)



Indicate the extent you have felt this way over the past week.

- Guilty (8.91)
- Scared (12.01)
- Hostile (10.26)
- Enthusiastic (32.02)
- Proud (33.47)

Indicate the extent you have felt this way over the past week.

- Irritable (19.97)
- Alert (46.37)
- Ashamed (13.77)
- Inspired (33.42)
- Nervous (20.62)

Indicate the extent you have felt this way over the past week.

- Determined (45.20)
- Attentive (46.47)
- Jittery (17.35)
- Active (41.35)
- Afraid (15.95)

### ***Sociological factors: Religious***

#### Religiosity

##### *Importance of Religion in One's Life*

How important is religion in your life? (percentages in parentheses)

- Very important (40.05)
- Somewhat important (27.50)
- Not too important (13.85)
- Not at all important (18.60)

Variable reverse coded for analysis.

##### *Frequency of Service Attendance*

Aside from weddings and funerals, how often do you attend religious services? (percentages in parentheses)

- More than once a week (10.22)
- Once a week (19.06)
- Once or twice a month (10.12)
- A few times a year (14.49)
- Seldom (17.44)
- Never (28.67)
- Don't know (0.00)

Variable reverse coded for analysis. There were no "don't know" responses.

### *Frequency of Prayer*

People practice their religion in different ways. Outside of attending religious services, how often do you pray? (percentages in parentheses)

- Several times a day (28.40)
- Once a day (15.80)
- A few times a week (15.05)
- Once a week (3.80)
- A few times a month (6.35)
- Seldom (12.75)
- Never (16.05)
- Don't know (1.80)

Variable reverse coded for analysis. "Never" (n = 321) and "don't know" (n = 36) responses were combined.

### ***Political factors***

#### Partisanship

Generally speaking, do you usually think of yourself as a Republican, a Democrat, an Independent, or something else? (percentages in parentheses)

- Democrat (44.18)
- Republican (26.39)
- Independent (24.54)
- Something else (4.90)

[For respondents answering "Democrat" or "Republican"] Would you call yourself a strong [Democrat/Republican] or a not very strong [Democrat/Republican]? (percentages in parentheses)

- Strong (Democrats: 68.10; Republicans: 62.31)
- Not very strong (Democrats: 31.90; Republicans: 37.69)

[For respondents answering "Independent or "Something else"] Do you think of yourself as closer to the Republican or Democratic Party? (percentages in parentheses)

- Republican (18.68)
- Democrat (24.79)
- Neither (56.54)

#### Ideology

Where would you place yourself on a scale that goes from "very liberal" to "very conservative"? (percentages in parentheses)

- Very liberal (14.45)
- Liberal (12.20)
- Slightly liberal (7.55)
- Moderate (36.10)
- Slightly conservative (7.20)
- Conservative (11.15)
- Very conservative (11.35)

## **Information environment**

### Legacy News Media Use

How often do you use the following media to get information about current events, public issues, or politics? (percent everyday/several times a week in parentheses)

- Network TV news (58.60)
- Cable TV news (54.10)
- Local TV news (67.20)
- Print newspapers (34.15)
- Radio (49.45)

The presentation order of these news outlets was randomized. Response options: "Every day," "Several times a week," "Several times a month," "Once a month or less," "Never."

### Online News Media Use

How often do you use the following media to get information about current events, public issues, or politics? (percent everyday/several times a week in parentheses)

- Online newspapers (38.90)
- Online news magazines (29.82)
- Blogs (19.95)
- YouTube (54.17)
- Facebook (58.95)
- Twitter (32.15)
- Reddit (20.44)
- Instagram (38.50)
- TV news websites (e.g., CNN.com, FoxNews.com) (51.43)
- 8Kun (7.20)
- Telegram (17.00)
- Truth Social (14.25)

The presentation order of these news outlets was randomized. Response options (reverse coded for analysis): "Every day," "Several times a week," "Several times a month," "Once a month or less," "Never."

### Follows Politics

Please tell us how much you agree or disagree with each of the statements below: (percent agree/strongly agree in parentheses)

- I closely follow what's going on in government and current events. (62.80)

## **Attitudes towards science, experts, and authority**

### Scientific Literacy (Okamoto et al., 2001)

To the best of your knowledge, are the following statements true or false? (percent correct response in parentheses)

- The center of the Earth is very cold. (79.84)
- The oxygen we breathe comes from plants. (85.39)
- Atoms are smaller than electrons. (47.52)
- The earliest humans lived at the same time as the dinosaurs. (59.03)
- Human beings, as we know them today, developed from earlier species of animals. (59.56)

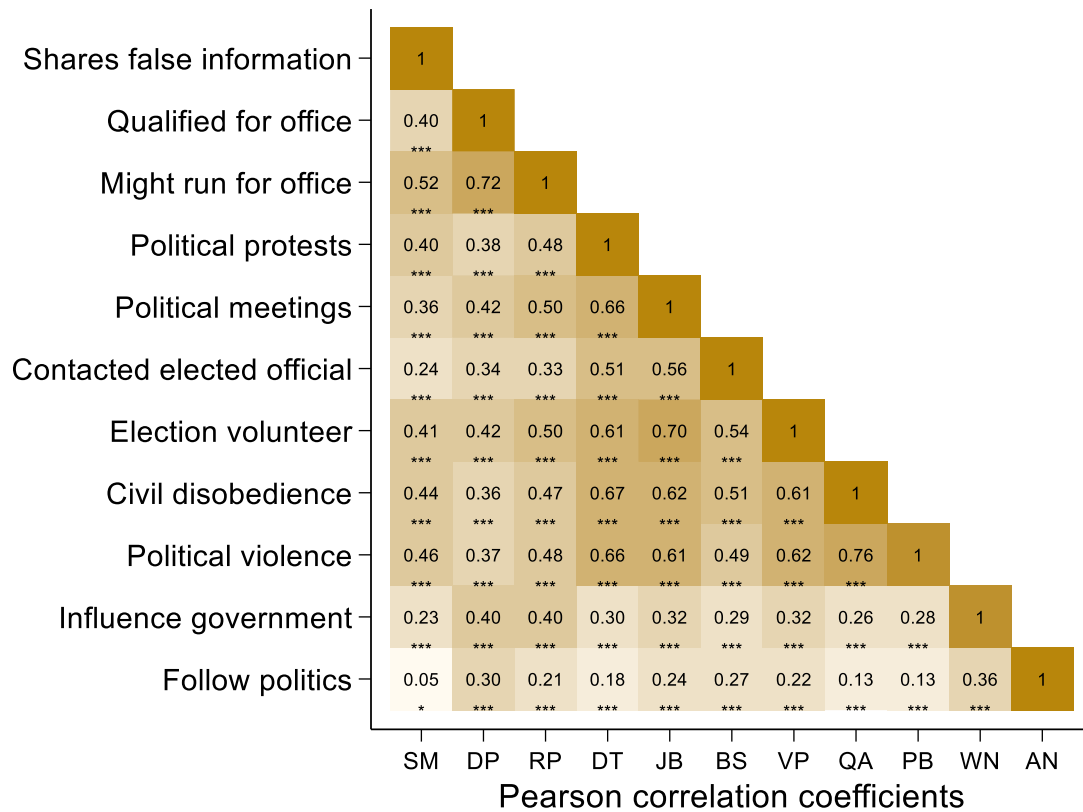
- It is the father’s gene that decides whether the baby is a boy or a girl. (67.18)

Confidence in the Scientific Community

I have confidence in the scientific community. (percentages in parentheses)

- Strongly agree (27.31)
- Agree (39.82)
- Neither agree nor disagree (22.76)
- Disagree (6.85)
- Strongly disagree (3.25)

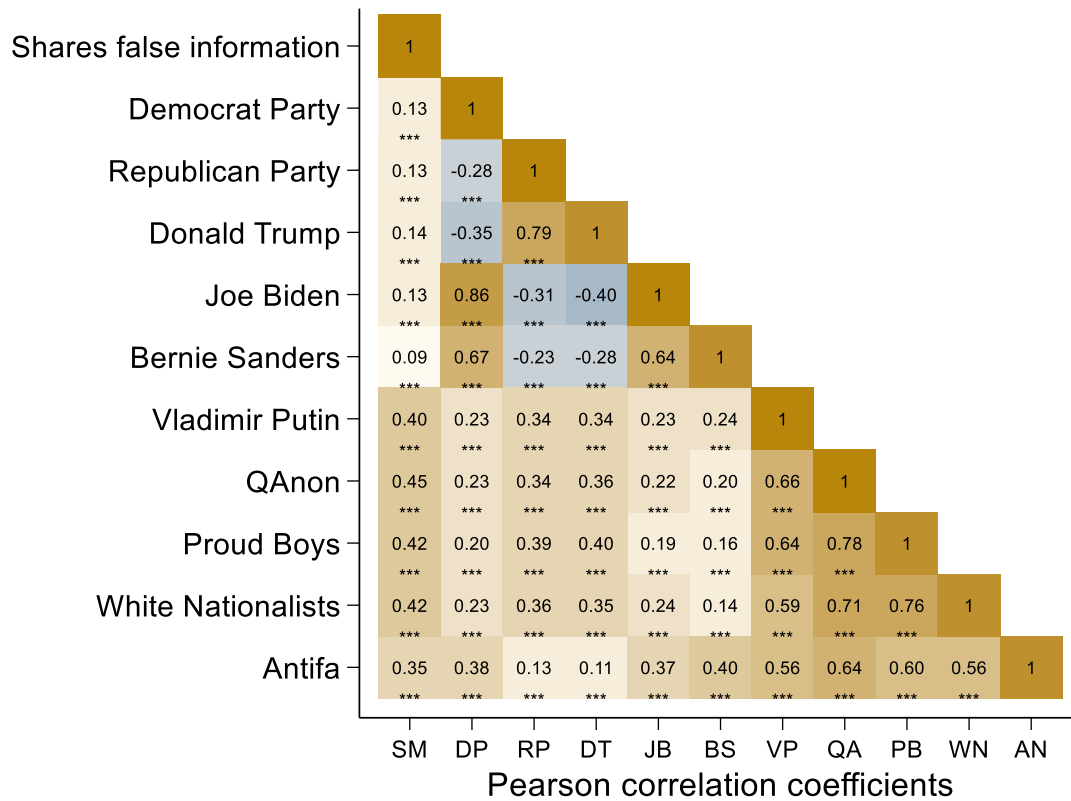
**Finding #2: Bivariate correlations with political behaviors**



**Figure A2. Bivariate correlations with political attitudes and behaviors.**

Note: N = 2001; \*\*\* p < 0.001, \* p < 0.05.

**Finding #3: Bivariate correlations with feeling thermometer ratings**



**Figure A3. Bivariate correlations with feeling thermometer ratings of political figures and groups.**  
 Note: N = 2001; \*\*\* p < 0.001.

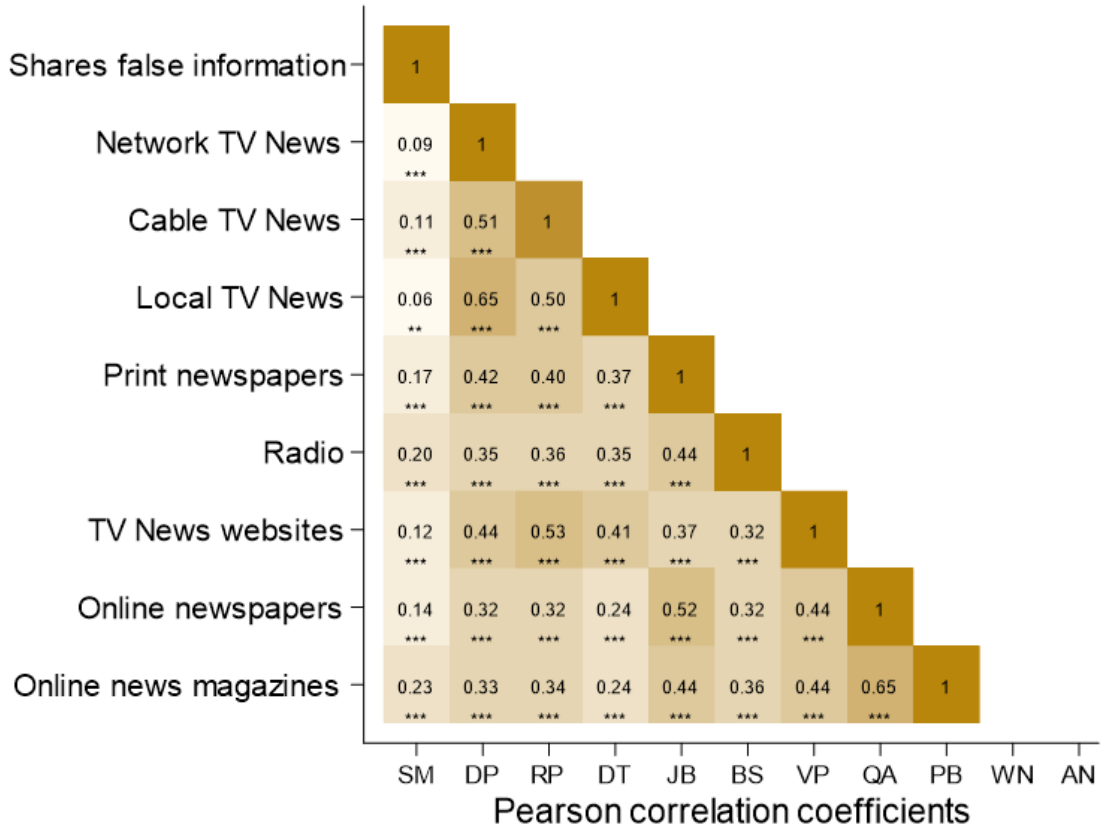
## Finding #4: Regression results

**Table A5.** Multiple linear regression (OLS) predicting sharing false political information from psychological and political characteristics.

	<i>b</i>	<i>SE</i>	<i>t</i> -value	<i>p</i> -value	[95% Conf	Interval]	$\beta$
Conspiracy thinking	-.032	.031	-1.02	.309	-.094	.03	-.03
Gender (female)	-.104	.057	-1.83	.068	-.216	.008	-.04
Age	-.003	.002	-1.37	.170	-.006	.001	-.03
Income	-.026	.017	-1.48	.140	-.06	.008	-.04
Education	-.018	.020	-0.90	.370	-.058	.022	-.02
Party ID (Dem-Rep)	-.008	.013	-0.60	.546	-.032	.017	-.01
Partisan strength	.042	.026	1.61	.107	-.009	.094	.04
Ideology (Lib-Con)	.006	.022	0.27	.786	-.038	.05	.01
Left-wing authoritarianism	.001	.031	0.04	.966	-.059	.062	.00
Right-wing authoritarianism	-.008	.038	-0.22	.826	-.082	.065	-.01
Religiosity	.289**	.098	2.95	.003	.096	.481	.07
Need for Chaos	.203***	.038	5.39	.000	.129	.277	.18
Argumentativeness	.067*	.032	2.12	.035	.005	.129	.06
Conflict	.015	.020	0.74	.459	-.024	.053	.02
Dark Tetrad	.257***	.054	4.75	.000	.151	.363	.18
Impulsiveness	.002	.041	0.05	.961	-.079	.083	.00
Subjective numeracy	-.029	.023	-1.24	.214	-.075	.017	-.03
Confidence is Sci. community	.003	.029	0.10	.916	-.053	.059	.00
Scientific literacy	-.016	.021	-0.78	.435	-.057	.024	-.02
Dogmatism	.126**	.037	3.44	.001	.054	.198	.09
Paranoia	.116***	.033	3.52	.000	.051	.181	.11
Positive affect	-.004	.003	-1.18	.238	-.011	.003	-.03
Negative affect	-.001	.004	-0.25	.802	-.008	.006	-.01
Uncertainty intolerance	-.024	.032	-0.75	.455	-.087	.039	-.02
Victimhood	.001	.030	0.04	.969	-.059	.061	.00
Perceived power (soc. media)	.160***	.034	4.71	.000	.093	.226	.14
Self-expression (soc. media)	.069*	.033	2.08	.038	.004	.135	.06
Constant	.052	.283	0.18	.854	-.503	.607	
Mean dependent var		2.146	SD dependent var			1.258	
R-squared		0.448	Number of obs			1,466	
F-test		43.281	Prob > F			0.000	
Akaike crit. (AIC)		4016.527	Bayesian crit. (BIC)			4164.655	

Note: \*\*\*  $p < .001$ , \*\*  $p < .01$ , \*  $p < .05$ .

**Finding #5: Bivariate correlations with media sources and PCA results**



**Figure A4. Bivariate correlations with frequency of legacy media use (offline and online).**

Note: N = 2,001; \*\*\* p < 0.001, \*\* p < .01.

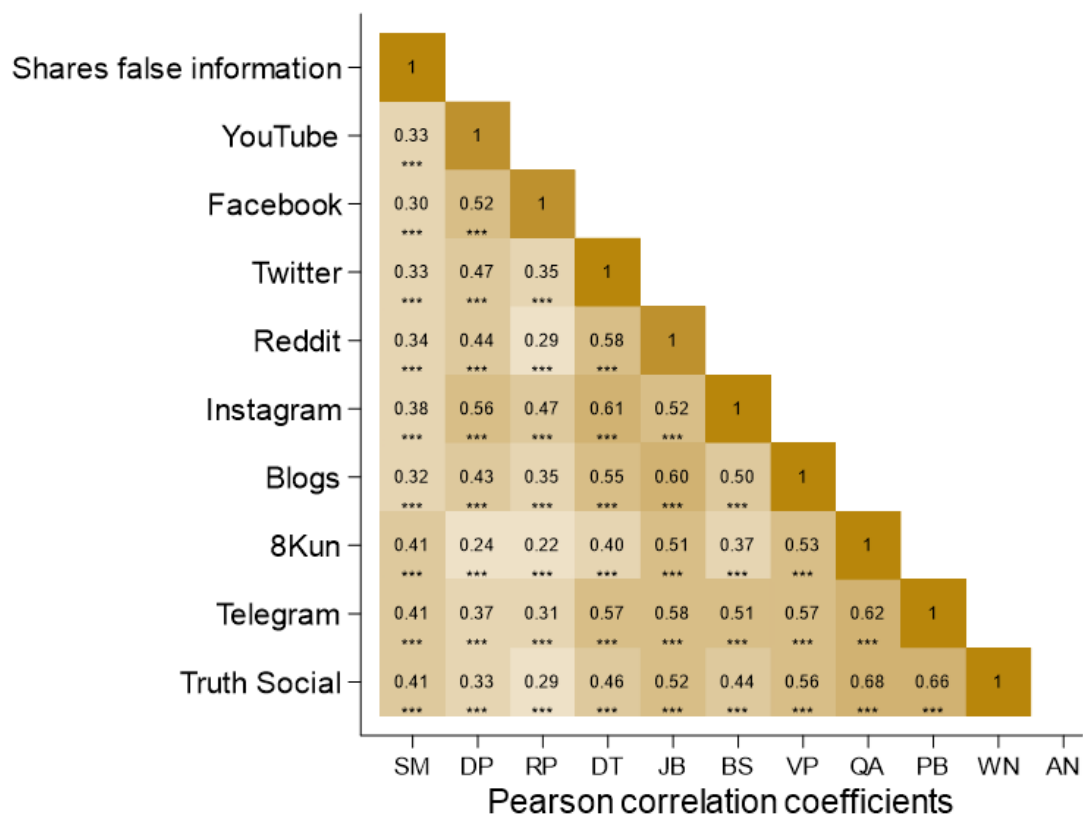


Figure A5. Bivariate correlations with frequency of social media use (by source).

Note: N = 2001; \*\*\* p < 0.001.

Table A8. Principal components analysis of online media sources.

Component	Factor 1	Factor 2	Factor 3	Uniqueness
8Kun	0.9400			0.247
Truth Social	0.8477			0.280
Telegram	0.7399			0.291
Reddit	0.5846			0.386
Blogs	0.5200			0.369
YouTube		0.8540		0.287
Facebook		0.8356		0.374
Twitter		0.4550		0.316
Instagram		0.6901		0.400
Online TV News			0.8453	0.373
Online newspapers			0.8365	0.272
Online news magazines			0.6839	0.289

Note: 'Oblimin' rotation was used.