


The vax files: Social media reactions to pandemic plotlines

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- Conspiracy theories increase engagement in largest public anti-vax group on alt-tech SNS Gab Social
- More fringe conspiracy theories receive less engagement.

Abstract

Conspiracy theories are a fact of contemporary online life, and their prevalence poses a significant concern, as conspiracy theory ideology nearly always correlates with increased support for, and participation in, political violence. However, not all conspiracy theories are created equal, and the less popular conspiracy theories tend to have a stronger association with political violence. Because of this tendency, anti-vaccination conspiracy theories are especially interesting, as their adherents tend to cross standard social and political divides, which enables more mundane anti-vax conspiracy theories to function as a sort of “gateway conspiracy theory” to more fringe theories. This study analyzes three anti-vaccine conspiracy theories, each representing a different level of popularity, within the largest public anti-vax group on the alt-tech social media platform Gab Social. The findings indicate that, in general, the more fringe a conspiracy theory is, the lower the level of user engagement it receives. Engagement is assessed through Gab’s unique set of reaction options, including like, dislike, haha, angry, honk, love, salute, and pray. These results are cautiously encouraging, suggesting that more extreme conspiracy theories may not be gaining substantial traction among the broader anti-vax community on the platform.

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1. Introduction

Social media platforms are used daily by millions of individuals not only to access news but also to foster social connections. Among users who primarily rely on social media for both information and interpersonal engagement, particularly those predisposed to conspiratorial thinking, which is strongly associated with heightened perceptions of danger and threat, there is a documented link between social media usage and the endorsement of conspiracy theories and misinformation (Bowes et al., 2023; Enders et al., 2023). Although the overall prevalence of conspiracy beliefs has remained relatively stable since 2012 (Uscinski et al., 2022), such beliefs continue to pose a significant concern. This is underscored by findings indicating that nearly all conspiracy theories examined (42 out of 44) are positively correlated with increased support for, and participation in, political violence (Enders et al., 2024). Notably, the strength of this correlation is inversely related to the popularity of the belief: more obscure or fringe conspiracy theories tend to have a stronger association with political violence, whereas widely held beliefs, such as the theory surrounding President John F. Kennedy's assassination, exhibit minimal or no such correlation. While acts of political violence are statistically rare and no single belief can predict such outcomes, even marginal increases in violent support or action are cause for concern, given that significant harm can be perpetrated by a lone actor or a small group, as evidenced by incidents such as the Tree of Life Synagogue shooting, the Tops Friendly Markets shooting, and the El Paso Walmart attack.

This study investigates how various anti-vaccination conspiracy theories influence engagement with related content on social media. Per-post reaction, comment, and share counts are standard measures of public engagement (Wukich, 2025), and this study examines user reactions to posts in particular (like, dislike, haha, angry, honk, love, salute, pray; comment and share counts were zero for the vast majority of the dataset) on the page of the group "ANTI-VAXX" on Gab Social to enhance understanding of how different types of conspiracy narratives elicit distinct affective responses in digital environments. Disinformation and misinformation rooted in fringe or conspiratorial thinking remain pressing challenges for social media platforms, researchers, users, and policymakers. Grounded in social identity theory, particularly frameworks of intergroup interaction and identity formation (Tajfel & Turner, 1979), and drawing on the concept of affective publics (Papacharissi, 2015), this research also incorporates scholarship on the role of rumor and religion in amplifying conspiratorial thinking (Andrade, 2020). Through this interdisciplinary lens, the project examines the relationship between conspiracy theory content and patterns of user engagement in online communities. This project aims to answer the following research question:

RQ: What is the effect of conspiracy theory type, (i) vaccines are inadvertently harmful, (ii) vaccines are bioweapons, or (iii) pandemic-related mandates are harmful, on the number of reactions to social media posts from Gab Social's ANTI-VAXX group page?

1.1. Fringe and Conspiracy Theories

Conspiracy theories attempt to explain an event or set of circumstances as the result of a secret plot, usually by powerful conspirators, even when a more plausible and less malicious explanation is available (Douglas et al., 2019; Harambam & Aupers, 2021). The spread of a conspiracy theory depends on affect-driven faith in its themes rather than on fact-based evidence (Douglas et al., 2019). This faith-based approach renders retractions of the theory practically impossible, creating a cycle of circular thinking that reinforces itself and rejects any evidence to the contrary (Barkun, 2011; Lewandowsky et al., 2013).

Conspiracy theories are a common aspect of human society, found throughout history and often driven by the human need to form communities. They are enhanced through actions such as rumor and religion (Andrade, 2020). In modern times, these beliefs have been used to justify violent attacks, war, and a holocaust on civilians and marginalized peoples (Douglas et al., 2019; Frankfurter, 2021; Goertzel, 2010; Tollefson, 2021), such as the January 6th 2021 Insurrection, led by members of the QAnon conspiracy theory; WWII-era Nazi party agenda; the 9/11 attacks on the World Trade Center; and the Oklahoma City bombing. Many of the groups that formed around these beliefs, as well as those formed around more benign conspiracy theories, such as New World Order and Moon landing conspiracy theorists, have created affect-laden communities around their cause, which focus on an outside, all-powerful, sinister central authority that is trying to or is actually controlling the world.

This all-powerful authority, posing a threat to society, distinguishes conspiracy theories from other false or fringe theories. Fringe theories, in general, encompass ideas that diverge from mainstream beliefs and do not necessarily begin as or evolve into conspiracy theories. Many fringe groups do, however, initially rally around non-conspiratorial beliefs and then adopt conspiracy narratives to sustain their identity, leading to an "us vs

them” narrative. The perceived threat is often a faceless entity, such as a government or faction of a government (e.g., the “deep state”); a group of people (e.g., the Jews, the Democrats, etc.); or a well-known public figure (e.g., Bill Gates, George Soros, etc.). Further complicating the study of conspiracy theories, it is also not uncommon for those who promote one conspiracy theory to also promote other theories that may or may not be related. For instance, Flat Earth proponents often also promote White nationalist and anti-feminist conspiracy theories (e.g., “tradlife,” which glorifies 1950s-era notions of the nuclear family with emphasis on the role of women as wives and mothers serving their husbands). This can result in such narratives weaving together, even when it seems the aspects of the two narratives are in opposition to one another. (Robins-Early, 2021).

News media and academic research typically approach fringe groups with conspiracy theories from psychological and cognitive perspectives. This can lead to discounting the beliefs held by these groups as myths, rumors, or simply “misinformed,” rather than engaging in the more nuanced study of how and when those beliefs form and change. Conspiracy theories in particular attract research focused on how to debunk and/or point out the potential dangers of spreading the conspiracy theory beliefs, which tends to overlook the way conspiracy theories do and do not drive group rhetorics and beliefs (Davidson, 2017; Larson, 2023; Lewandowsky et al., 2012; Lubrano, 2019; Pertwee et al., 2022; Swingle, 2018; Ullah et al., 2021; Wardle and Derakshan, 2017). Because conspiracy theories are characterized by a belief in a central authority or power intentionally controlling people or events, differentiating between these and other fringe beliefs is important. One can, for instance, believe that vaccinations cause autism without believing that vaccinations were created by a government to gain world domination by making everyone autistic.

This distinction becomes especially important when studying the role of conspiracy theories within online anti-vaccination communities. The implications for actions, interactions, and change are different in such scenarios. Often, individuals find common ground through shared fringe beliefs—beliefs that do not align with mainstream society or a “respected minority”—and form a community (Jasanoff, 1992). At first, these fringe communities and social movements may believe in ideas that seem outlandish to greater society, but they do not hold narratives that pit themselves against greater society or anyone else who is in opposition to their beliefs. Those with beliefs in astrology or clairvoyance are an example of such groups (Mermelstein and German, 2021). However, when these communities deviate far enough from the norm and/or are disregarded and judged by mainstream society, they sometimes introduce an “us vs. them” narrative (this ingrouping/outgrouping dynamic is discussed further in Section 2.3) in order to maintain their convictions, community, and sense of identity. This leads the group to view and describe those opposed to them as conspiring against them (Bartlett, 2021; Clark, 2018; Harambam, 2021; Islam et al., 2021; Loxton, 2018; Olshansky et al., 2020; Paolillo, 2018). In the case of the anti-vaccination community, for instance, it is the scientific community, the government, Big Pharma, and mainstream society that are conspiring against them. This type of fringe narrative, portraying a powerful outgroup(s) as conspiring against the less powerful ingroup, is the definition of a conspiracy theory. Unlike other fringe beliefs, conspiracy theories introduce fear and distrust of others into the community paradigm and are known to negatively affect both inter- and intra-community relationships, communication, and interactions, at times leading members of the community to cause harm to themselves or others (Jolley et al., 2022).

1.2. Cognition, Conspiracy, and Fringe Beliefs

Social identity theory explains that the social groups and movements that we belong to can be more important to our identity and self-esteem than our individual beliefs and characteristics (Tajfel & Turner, 1979). The social ties within a group are strengthened by creating and maintaining “us vs. them” territory lines, defining the ingroup in contrast to outgroups (Gaertner & Dovidio, 2005; Tajfel & Turner, 1979). This dynamic can be seen between conflicting Christian sects (Catholics and Protestants), religions (Hindus and Muslims), and racial and ethnic groups (white supremacy towards the BIPOC community). These groups draw territory lines using ideology and ethnicity to decide who can take membership and who cannot. The actions of this racial and religious us vs. them dynamic have been used to justify numerous incidences of genocide, ethnic cleansing, and political/religious wars (e.g. the Holocaust, the Rwandan genocide, the Crusades, the Tulsa Massacre, etc.).

These social movements, both online and offline, use a variety of tools to draw such boundaries, but online spaces are fundamentally different from offline spaces, and the boundary-setting between ingroups and outgroups is also fundamentally different online. For this reason, social identity theory on its own does not provide a comprehensive theoretical basis for understanding how conspiracy theories contribute to the dynamics of online social movements. To fully understand the role and function of conspiracy theories in online

social movements, it is necessary to recognize that these movements form affective publics, in which emotional affect is the driving force rather than notions of truth and facts (Papacharissi, 2014).

By way of drawing ingroup/outgroup boundaries, the use of harmful discourse, whether true (malinformation) or false (disinformation), is used to discredit the opposition. However, mal- and disinformation can often mutate rhetorically and spread stereotypes and/or misinformation about the outgroup, which can, in turn, lead to the formation of prejudices and/or conspiracy theories. Because these online social movements form affective publics, driven by affect rather than fact, disinformation is no less effective than malinformation for drawing boundaries. When this disinformation comes to be believed by members of the ingroup, it becomes misinformation—information that is factually incorrect but sincerely believed by the group members and harmful to the outgroup—which those ingroup members then repeat and spread (Gaertner & Dovidio, 2005; Wardle & Derakshan, 2017). There are some exceptions to this general statement, as digital grifters and leaders with narcissistic or sociopathic tendencies, who stand to gain power, influence, and/or money, will knowingly spread disinformation about an outgroup to discredit them. The majority of the members of these conspiracy theory-based social movements, however, believe the information they are being given and then spreading.

Since 2016, conspiracy theories, misinformation, and disinformation have become hot-button topics within public and scholarly discussion. On a daily basis, news outlets report on people subscribing to misinformation, and social media platforms now place warning labels on posts that convey misleading or false information, including conspiracy theories. However, susceptibility to misinformation is not a new monster created by the introduction of digital spaces; it is an intricate cognitive response that reflects the human need to establish ingroups and outgroups. Taber & Lodge (2006), for instance, describe a study in which participants were given the option of viewing arguments from various organizations about gun control or affirmative action, and their choices tended to track their group identification, rather than objective fact-seeking: They tended to choose arguments from organizations they were likely to agree with, depending on their ingroup's view rather than relying on their own; when reading arguments that conflicted with their views, they spent more time than they did on arguments that agreed with their views; and they spent more time constructing arguments against and finding problems with those arguments, reinforcing outgroup division and ingroup solidarity.

As conspiracy theories both develop within and contribute to affective publics, helping to establish, maintain, and strengthen ingroup identities, they become woven into ingroup members' senses of identity and purpose, and therefore are exceedingly difficult to dismantle. Any attempt to replace false, emotionally charged beliefs requires a carefully executed step-by-step retraction process, which still often meets with only limited success (Bail et al., 2018; Chan et al., 2017; Lewandowsky et al., 2012; Yzerbyt and Corneille, 2005).

1.3. Affective Publics and Online Fringe Communities

As briefly explained above, social movements that coalesce in digital spheres around emotion-driven, socio-political topics are termed affective publics—online communities that evoke and foster feelings of emotional engagement (Papacharissi, 2014; Dean, 2010; Gregg, 2011; Karatzogianni & Kuntsman, 2012; van Dijck, 2013). The more general notion of networked publics characterizes platforms structured by networked technologies for individuals to convene for social, cultural, and civic purposes, expanding their connections beyond immediate circles of friends and family (boyd, 2010). Affective publics are then defined as those networked publics that are “rendered out of ... the sharing of opinions, facts, sentiment, drama, and performance” (Papacharissi, 2014). Papacharissi (2014) underscores the diverse manifestations of affective publics across different social media platforms and their reliance on the digital tools, ideologies, cultures, and goals of the groups involved. Within these publics, members support connective, but not necessarily collective, actions, which allow for interaction without the need for deep ideological engagement or explanation. This phenomenon is particularly relevant in the context of conspiracy theory-driven groups responding to moral or fact-based information with short, sarcastic insults, rather than deep discussion.

Crucial to the concept of an affective public, especially in the context of conspiracy theories' role in online fringe communities, is the notion that they are driven by affect-laden statements of both fact and opinion, and that the distinction between these two types of statements is not important. The affective character of these statements creates an emotional response within the online user(s), which is then recognized as being shared, and this shared emotional response, or affective undercurrent, encourages engagement and connects diverse publics to an evolving event or issue. The communities that assemble around these affective undercurrents form affective publics.

In online conspiracy theory-driven publics, the affective statements and narratives are distributed on a mass digital scale, and they have the potential to “produce disruption/interruptions” among mainstream

discourse, giving voice to the narratives and opinions of fringe social movements. A social movement is a collective effort by a large group of people or organizations to bring about, resist, or undo social, political, economic, or environmental change. Unlike short-term trends, social movements are typically sustained over time and are driven by shared goals, values, or grievances (Merriam-Webster, n.d.; Opp, 2009; Scott & Marshall, 2009). In digital spaces, social movements, including fringe movements, often use social media technologies to form communities around their cause and organize actions, such as protests and public awareness campaigns. The impact of these publics is symbolic, which can encourage “revolutionary” change, whether the change shifts publics or society toward fact or fiction (Papacharissi, 2014).

A large portion of the literature that uses the theoretical approach of affective publics focuses on narrative storytelling in online spaces and on online social, political activism, movements, and groups; for the most part, this research does not address conspiracy theories (Adlung et al., 2021; Dawson, 2020; Hautea et al., 2021; Lünenborg, 2019; Papacharissi & Trevey, 2018; Papailias, 2016). The few pieces of literature on online fringe groups and conspiracy theory rhetoric that treat them as affective publics mostly focus on either ingroup-outgroup dynamics or the affective responses to specific fringe and/or conspiracy theories (Lee, 2022; Song & Gruzd, 2017). One notable exception is Farokhi (2022), who describes the function of these groups’ rhetorical approaches in maintaining and encouraging group membership. However, Farokhi’s explanations suggest that the affect behind these groups’ rhetoric is inauthentic, rendering their intentions deceptive rather than sincerely grounded in authentic fear and a desire to protest, inform, and maintain their positionality. Without viewing fringe groups’ affect and rhetoric as genuine and a phenomenon to be taken seriously, it is difficult to understand the role they play in those groups’ functioning.

1.4. Conspiracy Theories across Social Media Platforms

Digital spaces play a crucial role in the creation and spread of affective publics. Before the widespread use of the internet, affect-driven communities, such as those based on conspiracy theories, could connect with other believers only through local meetups, conferences, or traditional mail. The speed and breadth of online communication, however, change the relational processes of community formation. Social information processing theory suggests that relationships that are established and conducted in digital spaces are just as intimate, if not more so, than face-to-face relationships, but that digital relationships may take longer to cultivate (Walther, 1992). In addition, digital spaces provide a public platform for subcultures and marginalized voices to engage with public discourse and debate. Digital spaces frequently form “subaltern counterpublics”—spaces where people from marginalized communities discuss their experiences, while also creating and promoting narratives that challenge mainstream perceptions towards their “identities, interests, and needs” (Fraser, 1990, p. 67). These publics enable those opposed to mainstream opinion to find and engage both opposing and complementary opinions, sharing and debating their social and political views. Subaltern counterpublics can be seen in the development of both social media subcultures, such as Black Twitter, and entirely new social media platforms, such as Gab, Telegram, and Truth Social.

The proliferation of social media platforms further diversifies the digital landscape, offering users unique experiences characterized by different functionalities, communication tools, and levels of anonymity. Each platform shapes the behavior and interactions of digital groups, reflecting the diverse nature of online social spaces. Engagement metrics such as retweets and reposts contribute to individuals’ sense of belonging, reinforcing ingroup ties and solidifying group identity. This phenomenon aligns with the social identity model of deindividuation (SIDE theory), which suggests that individuals place greater importance on group identity and norms in digital contexts, expanding on the concepts of group identity and individuality from social identity theory (Postmes et al., 1998). Group norms sometimes even override individual attitudes and beliefs, leading to a transformation of individual behavior within online communities, such as when group members collectively rally against a social media platform that censors the group’s discourse and rhetoric. This group behavior can include criticizing, negatively reviewing, and speaking out against the platform, as well as leaving the platform altogether to join or create one with fewer content restrictions and guidelines (BBC News, 2021), such as the aforementioned Gab, Telegram, and Truth Social.

1.5. Boosting Conspiracy Theories with Social Media Technologies

Social media platforms feature unique interfaces that provide users with various digital tools and technologies, including images, internet memes, animated GIFs, videos, hashtags, posts, comments, links, emojis, and likes. When fringe social movements congregate in social media spaces, they use the platform’s tools to spread their ideologies, identify and engage with members of their ingroup, and identify and attack

their outgroups. The tools serve as casual communication tools across digital spaces, used to communicate ideas that may attract like-minded people and thereby grow and strengthen one's ingroup (Hornsey, 2008). The creation of digital spaces and their technologies has allowed group members to organize, network, and expand their communities all over the world (Howard & Hussain, 2013; Papacharissi, 2014), connecting like-minded people to one another without the work of physically seeking each other out and giving movements easily accessible places to congregate. Hashtags in particular, #itsflat, #tradlife, #fakedemic, etc., serve as group-affirming catchphrases that tie affective publics together.

Among the various social media platforms, some tools dominate or are intended to be used over others. For example, although X (formerly Twitter) can support video and image posts, the majority of the expression is done through written words and emojis, while platforms such as Instagram and TikTok are designed for users to share and post using video- and image-based content. Even within individual platforms, the technologies offered can achieve a variety of communicatory outcomes. The use of reactions and emojis, for instance, adds layers of emotional expression to posts, conveying affect in a nuanced manner that words alone may miss (Arafah & Hasyim, 2019). Similarly, platforms such as Instagram, TikTok, and Snapchat allow users to incorporate still images, GIFs, videos, and internet memes into their posts, providing diverse means of expression and communication. The addition of music to visual content can alter its reception and impact, illustrating the dynamic interplay between technology and content creation in digital spaces. Overall, these technologies not only facilitate expression but also foster unique online cultures and communities, reflecting the evolving landscape of digital communication and interaction.

1.6. Gab Social

The Gab Social interface, established in 2016 by Andrew Torba, offers several tools and features. The platform functions and tools include individual and group pages; a news feed; text, image, and video posts; comments, reposts, quotes, reactions, emojis, hashtags, links, and user and group tags; and the ability to mute and block other users (Gab AI, Inc., 2025). Torba coined the platform's catchphrase "where free speech reigns" as a direct response to the "free-speech restrictive" guidelines of platforms such as Facebook, Instagram, and (at the time) Twitter. Gab's community guidelines state that users cannot engage in the act of harming minors, violating or breaking any "federal, state or local laws," and that all users must stay within the protected "free speech" laws granted to them by the First Amendment to the United States Constitution (Gab AI, Inc., 2024).

For the purposes of this study, the anti-vaccination community group page "Anti-Vaxx" on Gab was analyzed to access the largest number of public posts within the anti-vaccination community. Gab was selected for this study because it is one of the longest-running and currently one of the most high-traffic "alternative" social media platforms in the world. Unlike Telegram, another long-standing "alternative" social media platform with high traffic, Gab offers group pages and mimics a Facebook-like interface. Similar to Facebook, Gab offers a view into how the anti-vaccination community communicates with one another and with others in a high-traffic digital space that can potentially reach large numbers of new followers. Gab, however, is an alternative social media platform rather than the mainstream Facebook and lacks the restrictive guidelines surrounding mis- and disinformation, allowing users to employ different, less restrained rhetoric. Finally, while there is significant existing research on community-building and anti-vax content and conspiracy theories on Gab (Berlinski et al., 2025; Collins, 2025; de Winkel et al., 2024; Fritz & Smith, 2025), this study fills a gap in the literature by examining the effect on engagement of conspiracy theories of varying extremity.

1.7. Hypothesis

Integrating concepts from social identity theory and affective publics, which highlight the importance of group identity and affect for online communities, the current project examines the influence of conspiracy theories on the anti-vaccination community on Gab. This investigation developed from a broader research project, and the theoretical basis described above grounded the ten a priori categories used in that project, which are presented in Table 1 below. The present study focuses on one of these categories in particular, anti-vax and disease-related conspiracy theories, and the impact on engagement of the three most frequently discussed conspiracy theories of this type. These three conspiracy theories turned out to vary significantly in extremity, leading to the following theory-driven hypothesis:

H1: The number of reactions a post receives varies with the presence or absence in the post content of one or more of the following three conspiracy theories about the COVID-19 vaccines and lockdown mandates: (i) vaccines are harmful, ineffective, and/or poison (e.g., the government or world powers are lying and hiding that vaccines cause cancer, heart attacks, death, etc.); (ii) vaccines are part of a government, New World Order

(NWO), Great Reset, and/or bioweapon plot; (iii) vaccine/mask/social distancing mandates are intentionally harmful, unlawful, and Nazi-like (e.g., unvaccinated people will have their children taken, be sent to concentration camps, etc.).

2. Method

2.1. Data Collection

The dataset for this study, derived from the author's dissertation, consisted of all posts made to the "Anti-Vaxx" group on Gab from June 1, 2023, to November 15, 2024, totaling 2,656.¹ Information about the group posts for this date range was collected using the Gab API and stored in JSON files, allowing easy extraction of metadata, such as dates and counts of comments and reactions, as well as content, including attached media and quoted posts. An automated process downloaded all the attached images and videos and most of the linked videos, with roughly 15 downloaded by hand.

2.2. Critical Technocultural Discourse Analysis

With such a large dataset, it was unrealistic to attempt to qualitatively code them all by hand, so at this stage, 100 posts were randomly selected, and an HTML page was generated containing the post contents and links. HTML was chosen for its readability and ease of import into MAXQDA. These 100 posts were analyzed using critical technocultural discourse analysis and qualitatively coded into ten *a priori*, theory-driven categories, with emergent subcategories; often, several subcategories from the same *a priori* category applied to a single post.

At this point, as part of the larger study, an additional 100 Facebook posts were also analyzed; the codebook resulting from the full 200-post analysis was included in the system prompt (Table 1) to guide the LLM analysis. Two additional researchers were also given the full list of categories and emergent subcategories, with definitions, and each coded a 10% sample of the two 100-post datasets. These researchers were allowed to disagree with specific applications of categories and subcategories, and were allowed to create additional subcategories, but were not allowed to delete subcategories or categories or add additional categories. Agreement was established across all three coders.

Table 1. System instruction (subcode lists truncated for length)

You are a social science researcher with an expertise in digital extremism and conspiracy theories, studying online anti-vax groups. When given the contents of a social media post, potentially including linked articles, attached photos and videos, and quoted posts, you use qualitative coding to identify key features of the post. Linked articles are passed as raw HTML; please be sure to analyze the title and contents of the article, but not the other material, such as advertisements and links to other articles. Posts may also include a user-chosen context, which functions as a platform-specific hashtag, and a preview card, which summarizes linked and quoted content. Your response should be formatted in markdown and proceed using these four steps:

Step 1: Observe, identify, and describe the content of the post (text, image, and/or video).

Step 2: Analyze the message and intent of that content.

Step 3: Apply codes based on that analysis.

Step 4: Review those codes for redundancy or missed codes.

After these four steps, you should provide a list of the final codes. Please put "Final Codes" before that list for ease of processing. Please format codes with subcodes as separate entries reading "Code: Subcode".

Your codebook contains 10 primary codes, some of which include subcodes to more precisely specify the features of the post. You may generate your own subcodes if none of the existing subcodes apply, but you may not generate new codes.

Here is a list of all the codes and their subcodes:

Code: Misinformed Responses

No subcodes

¹ This is unfortunately no longer possible, because group pages on Gab now display only the last 2 months of group posts.

| |
|--|
| Code: Praising Public Figures Subcode: Dr Phil Subcode: Russell Brand [... 12 subcodes total] |
| Code: Villainizing Public Figures and/or Organizations Subcode: Vaxxed Subcode: Big Pharma [... 23 subcodes total] |
| Code: Groups Being Signaled Subcode: Unvaccinated/Antivaxx Subcode: Conservatives/MAGA/White Supremacists/Nationalists Subcode: Parents |
| Code: Antivaxx/Disease-Related Conspiracy Theories Subcode: Big Pharma Subcode: Hiding Alternative Cures and Treatments [... 15 subcodes total] |
| Code: Conspiracy Theories Unrelated to Antivaxx Subcode: Incel Subcode: Crisis Actors/False Flag/Staged Events [... 22 subcodes total] |
| Code: Hate Speech/Violent Rhetoric Subcode: National/Ethnic/Race/Religion Subcode: LGBTQ [... 5 subcodes total] |
| Code: Using Irony/Humor/Sarcasm No subcodes |
| Code: Coded Language No subcodes |
| Code: Prophetic Revelation/Demons/Jesus Will Save Us/End Times No subcodes |

2.3. LLM Analysis

The data scraping and LLM analysis portions of the study were contracted to an AI researcher, who worked under the observation and guidance of the researcher conducting this study, ensuring accuracy and applicability of the system instructions and prompts. In preparation for the LLM analysis and coding, the full HTML of each linked article (roughly 1,000 in total) was also downloaded. To remove all extraneous data contained in those pages, such as ads, navigation menus, and links to other articles, the LLM was given the full HTML for each article and instructed to return only the title and text of the article, formatted in Markdown. This process was successful for roughly 80% of the articles; the remaining 20% were left as HTML, which did not affect the LLM's analysis in any material way.

After all the content was downloaded, processed, and stored, it was submitted to the LLM one post at a time via the LLM's API, interleaving text and media in an approximation of the order they would appear on Gab. Using the above system instruction, which was developed through analysis of the LLM's "show thinking" feature and iterative testing, the LLM was instructed to respond with a detailed summary and analysis of each post's content and applicable qualitative codes and sub-codes based on that analysis, a task at which it was overwhelmingly successful. After removing posts that were no longer available, linked to content that was no longer available, or linked to videos over 1 hour long, which were too long for the LLM to process, there were only eight posts that the LLM did not successfully analyze.

2.4. Verification of LLM Analysis

Once the complete dataset had been analyzed by the LLM, a list was generated containing every category and subcategory used in that analysis; it did not include any new categories. The author and an additional researcher then checked the new subcategories for overlap, either with each other or with one of the original subcategories, and codes were collapsed as appropriate. For instance, several posts were coded with some variation on “Antivaxx/Disease-Related Conspiracy Theories: Denial of Germ Theory,” which were all collapsed into the “Antivaxx/Disease-Related Conspiracy Theories: COVID and/or Other Illnesses Aren't Real/Inflating Numbers” subcategory.

After collapsing the codes, both researchers assessed the applicability of each code generated for each post in the full dataset and found nearly all the codes to be correct. An examination of the provided explanations for the codes judged incorrect further revealed that the vast majority of these codes were, according to the LLM, merely “implied” by the content. After removing these codes, fewer than 10 incorrect codes remained, and these were notably all the result of misunderstanding some specific communicative nuance, rather than hallucination or other well-known LLM errors. The manual analysis of the initial 200 posts was further compared with the LLM-generated analyses of those posts, which revealed that the model had identified every manually identified code, and sometimes also applied additional accurate codes. This extremely high level of human-LLM agreement supported the use of the LLM’s responses as the basis for further analysis of the dataset.

2.5. Independent Variables

The three independent variables analyzed for this study were selected due to their popularity on the Gab Social group page “ANTI-VAXX.” Antivax/Disease-Related Conspiracy Theories were identified in more posts than any other *a priori* category (n = 2053 posts), and the present project focused on the top three emergent sub-codes from this category: (i) vaccines are harmful/ineffective/poison (n = 1668 posts), (ii) vaccines are part of a government/NWO/Great Reset/bioweapon plot (n = 965 posts), (iii) mandates are harmful/unlawful/Nazi-like (n = 573 posts).

The presence or absence of conspiracy theories of these three types were used as independent variables (IVs), with the number of reactions a post received as the dependent variable (DV). The relationship between the three IVs and the DV were modeled by a negative binomial regression with interaction terms. Table 2 contains the post counts for each combination of independent variables.

Table 2. Post counts for each combination of independent variables

| Mandates Absent | | | Mandates Present | | |
|---------------------|---------------|---------|---------------------|---------------|---------|
| Harmful/Ineffective | NWO/Bioweapon | | Harmful/Ineffective | NWO/Bioweapon | |
| | Absent | Present | | Absent | Present |
| Absent | 456 | 117 | Absent | 87 | 68 |
| Present | 778 | 472 | Present | 111 | 307 |

2.5.1. Vax is Harmful/Ineffective

The most commonly observed independent variable on the anti-vax group page was Vax is Harmful/Ineffective with 1668 posts. For the purposes of this study, Vax is Harmful/Ineffective will be defined as: Vaccines (especially COVID-19 vaccine) are inadvertently poisonous/harmful to one's health (e.g., causes cancer, heart attacks, blood clots, sudden death, etc.) and the government/world powers/etc. are lying and hiding this information from the public; and/or vaccines are ineffective (people can still catch illnesses they were vaccinated against). Figure 1 shows an example from the dataset of a Vax is Harmful/Ineffective post.

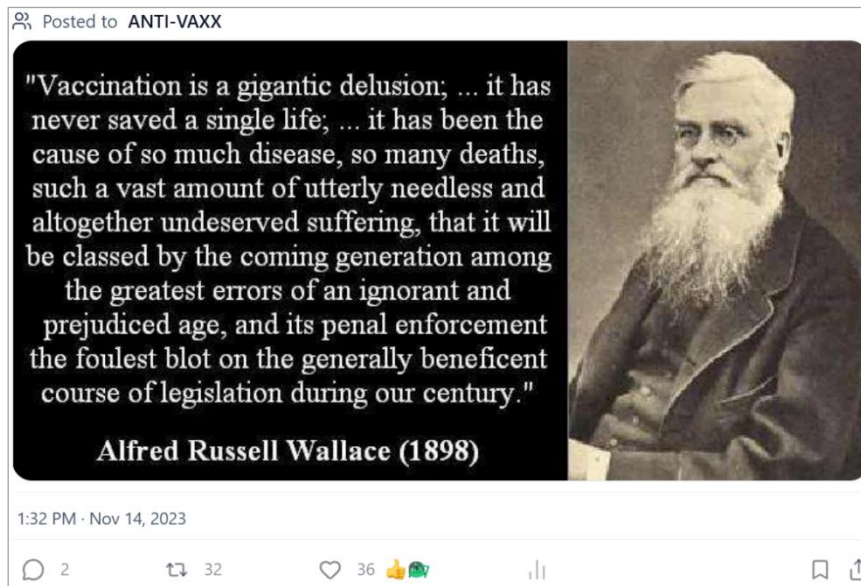


Figure 1. Example of a Vax is Harmful/Ineffective post

2.5.2. NWO/Bioweapon Vax Conspiracy

The second-most-observed independent variable on the anti-vax group page was NWO/Bioweapon Vax Conspiracy, with 965 posts. For the purposes of this study, NWO/Bioweapon Vax Conspiracy will be defined as: Vaccines (especially the COVID-19 vaccine) are NWO/Government/Great Reset engineered bioweapons intended to kill billions of the population, and/or microchip us and turn us into slaves/robot-army. Figure 2 shows an example from the dataset of an NWO/Bioweapon Vax Conspiracy post.

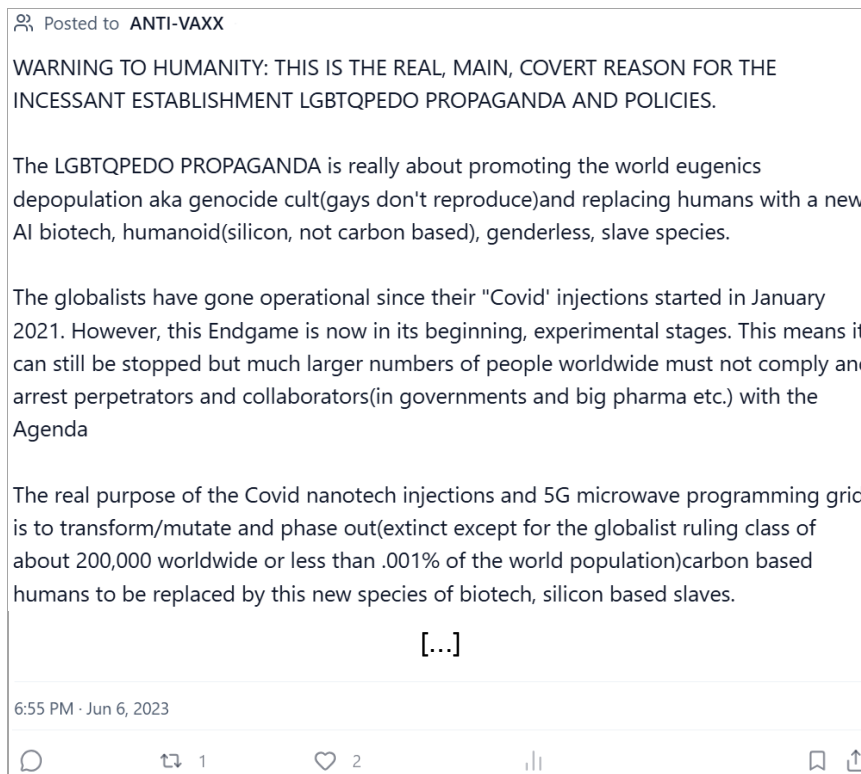


Figure 2. Example of an NWO/Bioweapon Vax Conspiracy post (text truncated for length)

2.5.3. Pandemic-Related Mandates are Harmful

The third-most-observed independent variable on the anti-vax group page was "Pandemic-Related Mandates are Harmful," with 573 posts. For the purposes of this study, Pandemic-Related Mandates are Harmful will be defined as: World Governments/U.S. Democrats/Public Figures are enforcing illegal and harmful

draconian social distancing/mask and vaccination mandates. Failure to comply will result in having children taken, and/or being detained and imprisoned or sent to Nazi-like camps for the unvaccinated. Figure 3 shows an example from the dataset of a Pandemic-Related Mandates are Harmful post.



Figure 3. Example of a Pandemic-Related Mandates are Harmful post

2.6. Dependent Variable

For this study, the dependent variable (DV) being analyzed is the number of reactions (like, dislike, haha, angry, honk, love, salute, pray) each post received. It was determined, both visually (Figure 4) and by calculating the ratio of variance to mean (approximately 96), that the DV was overdispersed. No structural zeros were present within the DV count, meaning all zeros were the result of the count-generating process of users reacting to posts. Additionally, a hurdle model was unnecessary, as there was no threshold or barrier that needed to be met or overcome for a post to receive its first reaction.

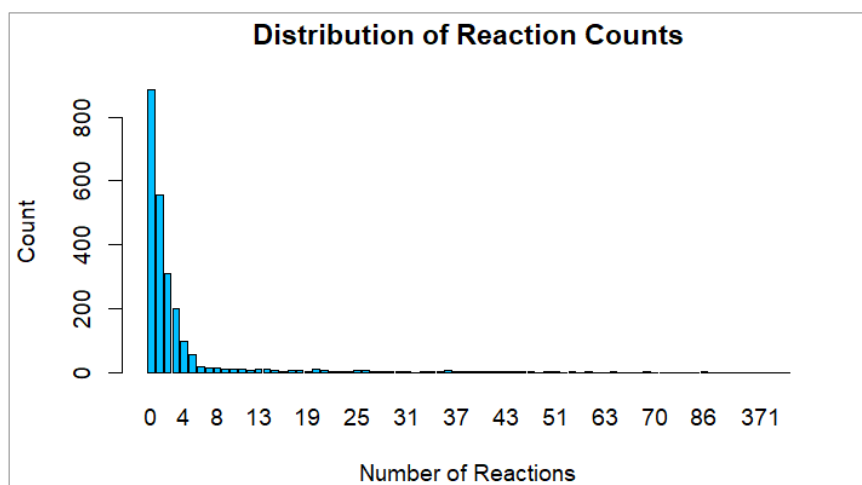


Figure 4. Barplot of reaction counts to posts on Gab Social group page "Anti-Vaxx"

3. Results

3.1. Coefficients and Confidence Intervals

The number of reactions a post received on the Gab Social group page “Anti-Vaxx” did vary with the presence or absence of one or more of the three conspiracy theories—(i) vaccines are inadvertently harmful, (ii) vaccines are bioweapons, or (iii) pandemic-related mandates are harmful—in the post content, thus supporting the alternative hypothesis. All three independent variables and interactions were significant at the 0.001 level, and 95% confidence intervals were represented (Figure 5).

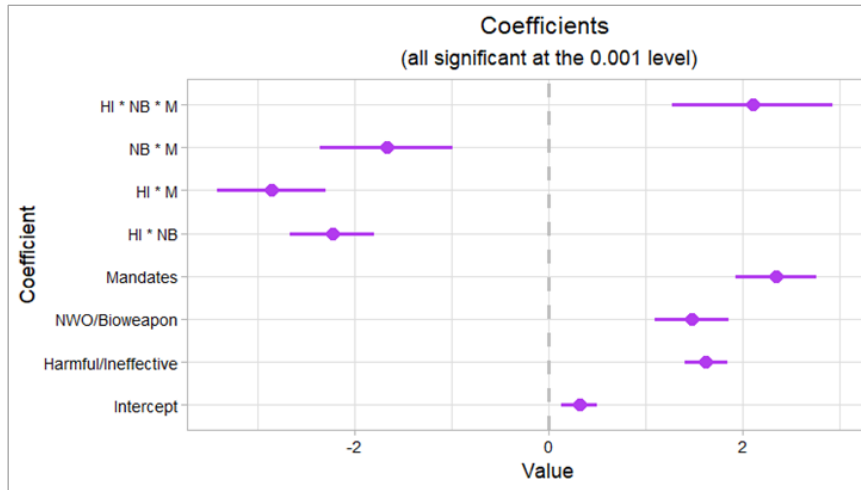


Figure 5. Plot of standard log count coefficients with 95% confidence intervals

While all independent variables and interactions in this study were statistically significant, the coefficients represent a logarithmic transformation of reaction counts, making direct interpretation less intuitive. Therefore, examining the predicted values offers a clearer understanding of the effects of the three independent variables on actual reaction counts.

3.2. Predicted Values

As shown in Figure 6, posts that do not address any of the three independent variable topics—(i) vaccines are inadvertently harmful, (ii) vaccines are bioweapons, or (iii) pandemic-related mandates are harmful—are predicted to receive approximately 1.4 reactions, while posts that mention one or more of these topics are expected to receive a minimum of 3.1 reactions. The number of reactions varies, however, depending on the topic or topics discussed: Posts discussing only (i) have the highest predicted reaction count at 14.4; posts discussing only (ii) are second, with 7; and posts discussing only (iii) are third, with 6. For posts discussing multiple topics, the presence of either (ii) or (iii) reduces the predicted reaction count, and the presence of both reduces it further.

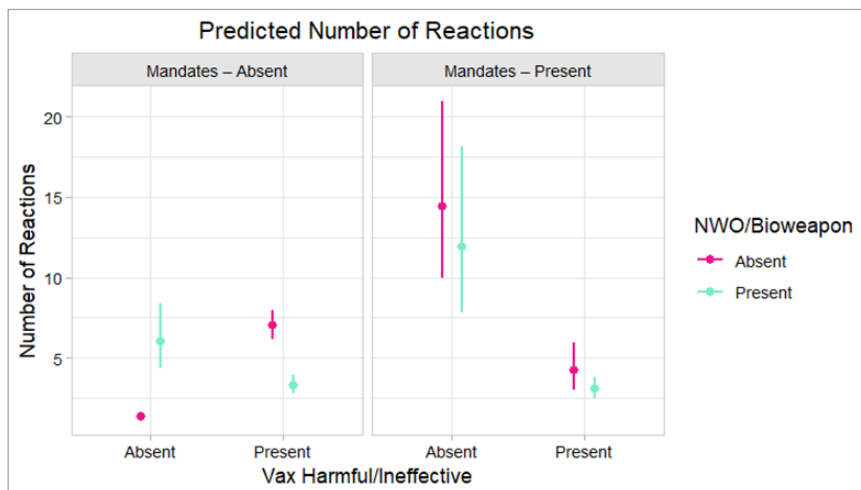


Figure 6. Plot of predicted reaction counts

4. Discussion

The order of the highest to lowest predicted reaction counts suggests that posts that discuss more extreme and fringe anti-vax conspiracy theories (e.g., the vaccine is turning the population into a robot-slave-army) tend to receive fewer reactions, as opposed posts that contain conspiracy theories with ideas that users might view as “more plausible” (e.g., children will be taken from unvaccinated parents). One significant reason for this trend could be the influence of major news media outlets and public figures, such as Fox News and Tucker Carlson, who in 2022, during the height of the COVID-19 pandemic, lockdown, and subsequent releases of the vaccine, made unverified claims about CDC-mandated child vaccinations. Carlson, for instance, aired a segment titled “CDC: Your Children, Our Rules” in which he stated that the CDC was forcing children to become vaccinated or face not being able to attend public schooling. Within 24 hours, Carlson’s false claim had gone viral throughout social media and was being commented on by multiple prominent rightwing public figures (Diamond & Sun, 2022).

Tucker Carlson has an extensive and documented history of making false claims, including claims about vaccine-related deaths being on the rise (Walsh, 2021), but to date has not reported that vaccines are spliced with alien DNA, even if he has shown support for those who do make these sorts of claims (Ramirez, 2020). Carlson’s public popularity could help to explain the hierarchy of predicted reaction counts for posts containing only one of the three types of conspiracy theory.

When the variables are considered together, we see a similar trend across the two most extreme subcategories: discussing conspiracy theories of either kind reduces reactions, and discussing conspiracy theories of both kinds reduces them further. The effect of discussing Pandemic-Related Mandates are Harmful conspiracy theories is somewhat inconsistent, however; it increases reactions for posts that also discuss NWO/Bioweapon Vax conspiracy theories, but its effect is entirely negated by the presence of a Vax is Harmful/Ineffective conspiracy theory, having a much greater effect than the more extreme NWO/Bioweapon Vax conspiracy theories. The reason for this is not clear, but one possible explanation is that, draconian or not, everyone experienced the lockdown and mask mandates. In contrast, not everyone experienced people dying from the vaccine—in fact, given that the vaccine was not deadly, nobody did, at least not in the way the conspiracies suggest—and billions of people were vaccinated.

5. Conclusion & Practical Implications

In the anti-vax group page “Anti-Vaxx” on fringe social media platform Gab Social, the most fringe of fringe conspiracy theories receive less engagement, as measured by number of reactions (like, dislike, haha, angry, honk, love, salute, pray), than the middle-of-the-road fringe conspiracy theories. Even when these theories interact with one another, the most fringe conspiracy theories reduce engagement. This can possibly be explained by the promotion of some conspiracy theories over others (vaccine mandates over vaccine is a bioweapon) being present in the mainstream media. These findings provide reason to be cautiously optimistic, as they indicate that the most extreme conspiracy theories may not be significantly resonating with the broader anti-vaccine community on the platform. The author recognizes the limitations present within the study, most notably that, as in any study, there are numerous other independent variables that could have been tested, as well as platforms, groups, and subjects that could have been studied. Future research in this area might consider studying the same reaction counts as presented in this study, but changing the independent variables (e.g., non-vaccine-related conspiracy theories + vaccine-related conspiracy theories + hate-speech); a comparison of reaction counts across different platforms; and/or replacing reaction counts with number of views per post.

Statement of Researcher

Researcher’s contribution rate statement:

Giovanna L. Henery: Conceptualization, methodology, investigation, validation, data curation, formal analysis, writing – original draft, writing – review & editing.

Conflict statement:

The author declares that they have no conflict of interest.

Data Availability Statement:

The data supporting this study’s findings are available on request from the corresponding author. However, the data are not publicly available due to privacy or ethical restrictions.

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This research is not human subjects research, as determined by the Colorado State University Institutional Review Board, protocol 5907, dated 06/03/2024.

Author Biography:

Giovanna L. Henery, Ph.D., is an investigative researcher and intelligence analyst with expertise in mis/disinformation, digital extremism, conspiracy theories, and OSINT. Her research employs both qualitative and quantitative methodologies, and she frequently collaborates with anti-hate advocacy groups and law enforcement.

6. References

- Adlung, S., Lünenborg, M., & Raetzsch, C. (2021). Pitching gender in a racist tune: The affective publics of the #120decibel campaign. *Media and Communication*, 9(2), 16–26. <https://doi.org/10.17645/mac.v9i2.3749>
- Andrade, G. (2020). Medical conspiracy theories: Cognitive science and implications for ethics. *Medicine, Health Care and Philosophy*, 23(3), 505–518. <https://doi.org/10.1007/s11019-020-09951-6>
- Arafah, B. & Hasyim, M. (2019). The language of emoji in social media. In J. Suhadi, P. Purwarno, M. Manugeran, P. Pardi, S. Ekalestari, A. Suhendi, & P. Siwi (Eds.), *The 2nd annual international conference on language and literature* (pp. 494–504). KnE Social Sciences. <http://dx.doi.org/10.18502/kss.v3i19.4880>
- Bail, C. A., Argyle, L. P., Brown, T. W., Bumpus, J. P., Chen, H., Hunzaker, M. B. F., Lee, J., Mann, M., Merhout, F., & Volfovsky, A. (2018). Exposure to opposing views on social media can increase political polarization. *Proceedings of the National Academy of Sciences of the United States of America*, 115(37), 9216–9221. <https://doi.org/10.1073/pnas.1804840115>
- BBC. (2021, October 21). *Trump to launch new social media platform Truth Social*. BBC News. <https://www.bbc.com/news/world-us-canada-58990330>
- Barkun, M. (2011). *Chasing phantoms*. University of North Carolina Press. https://doi.org/10.5149/9780807877692_barkun
- Bartlett, M. (2021, November 19). *How do you argue with anti-vaxxers who believe they're on a noble mission?* The Guardian. <https://www.theguardian.com/commentisfree/2021/nov/20/how-do-you-argue-with-anti-vaxxers-who-believe-theyre-on-a-noble-mission>
- Berlinski, É., Kornberger, M., & Mouritsen, J. (2025). The role of social media in the spread of conspiracy theories. In E. Bruni & L. M. Lefsrud (Eds.), *Organized science denial: An action plan for solutions* (pp. 146–168). Oxford University Press. <https://doi.org/10.1093/9780198953067.001.0001>
- Bowes, S. M., Costello, T. H., & Tasimi, A. (2023). The conspiratorial mind: A meta-analytic review of motivational and personological correlates. *Psychological Bulletin*, 149(5-6), 259–293. <https://doi.org/10.1037/bul0000392>
- boyd, d. (2010). Social network sites as networked publics: Affordances, dynamics, and implications. In Z. Papacharissi (Ed.), *Networked self: Identity, community, and culture on social network sites* (pp. 39–58). Routledge. <https://doi.org/10.4324/9780203876527>
- Chan, M. S., Jones, C. R., Hall Jamieson, K., & Albarracín, D. (2017). Debunking: A meta-analysis of the psychological efficacy of messages countering misinformation. *Psychological Science*, 28(11), 1531–1546. <https://doi.org/10.1177/095679761771>
- Clark, D. J. (2018). *Behind the curve* [Film]. Delta-v Productions.
- Collins, J. (2025). The gift of Gab: A Netnographic examination of the community building mechanisms in far-right online space. *Terrorism and Political Violence*, 37(3), 349–368. <https://doi.org/10.1080/09546553.2023.2296514>
- Davidson, M. (2017). Vaccination as a cause of autism—myths and controversies. *Dialogues in Clinical Neuroscience*, 19(4), 403–407. <https://doi.org/10.31887/DCNS.2017.19.4/mdavidson>
- Dawson, P. (2020). Hashtag narrative: Emergent storytelling and affective publics in the digital age. *International Journal of Cultural Studies*, 23(6), 968–983. <https://doi.org/10.1177/1367877920921417>
- de Winkel, T., Gorzeman, L., de Wilde de Ligny, S., ten Heuvel, T., Blekkenhorst, M., Prins, S., & Schäfer, M. T. (2024). The Gab project: The methodological, epistemological, and legal challenges of studying the platformized far right. *Journal of Right-Wing Studies*, 2(1). <http://dx.doi.org/10.5070/RW3.1448>
- Dean, J. (2010). Affective networks. *Media Tropes eJournal*, 2(2), 19–44. <https://mediatropes.com/index.php/Mediatropes/article/view/11932>
- Diamond, D., & Sun, L. H. (2022, October 19). *False claim that CDC would require COVID vaccines for kids goes viral*. The Washington Post. <https://www.washingtonpost.com/health/2022/10/19/covid-vaccines-children-cdc-disinformation/>
- Douglas, K. M., Uscinski, J. E., Sutton, R. M., Cichocka, A., Nefes, T., Ang, C. S., & Deravi, F. (2019). Understanding conspiracy theories. *Political Psychology*, 40(S1), 3–35. <https://doi.org/10.1111/pops.12568>
- Enders, A. M., Uscinski, J. E., Seelig, M. I., Klofstad, C. A., Wuchty, S., Funchion, J. R., Murthi, M. N., Premaratne, K., & Stoler, J. (2023). The relationship between social media use and beliefs in conspiracy theories and misinformation. *Political Behavior*, 45(2), 781–804. <https://doi.org/10.1007/s11109-021-09734-6>

- Enders, A., Klofstad, C., & Uscinski, J. (2024). The relationship between conspiracy theory beliefs and political violence. *Harvard Kennedy School Misinformation Review*, 5(6). <https://doi.org/10.37016/mr-2020-163>
- Farokhi, Z. (2022). Making freedom great again: Conspiracy theories, affective nostalgia and alignment, and the right-wing base grammars of the #freedomconvoy (*). *Global Media Journal — Canadian Edition*, 14(1), 67–92. <http://gmj-canadianedition.ca/2022-volume-14-issue-1/>
- Frankfurter, D. (2021). Religion in the mirror of the other: The discursive value of cult-atrocity stories in Mediterranean Antiquity. *History of Religions*, 60(3), 188–208. <https://doi.org/10.1086/711943>
- Fraser, N. (1990). Rethinking the public sphere: A contribution to the critique of actually existing democracy. *Social Text*, 25/26, 56–80. <https://doi.org/10.2307/466240>
- Fritz, A. M., & Smith, A. M. (2025). Poison, lies, war: A mixed methods content analysis of posts about COVID-19 vaccination on Gab Social. *Human Vaccines & Immunotherapeutics*, 21(1), 2443999. <https://doi.org/10.1080/21645515.2024.2443999>
- Gab AI, Inc. (2024, January 8). *Terms of service*. Retrieved April 28, 2025, from <https://gab.com/about/tos>
- Gab AI, Inc. (2021, January 5). *Gab social features and guides – groups – Gab help*. Retrieved April 28, 2025 from <https://help.gab.com/article/gab-social-group-create-manage>
- Gaertner, S. L. & Dovidio, J. F. (2005). Categorization, recategorization, and intergroup bias. In J. F. Dovidio, P. Glick & L. A. Rudman (Eds.), *On the nature of prejudice* (pp. 71–88). Blackwell. <https://doi.org/10.1002/9780470773963.ch5>
- Goertzel T. (2010). Conspiracy theories in science. *EMBO reports*, 11(7), 493–499. <https://doi.org/10.1038/embor.2010.84>
- Gregg, M. (2011). *Work's intimacy*. Polity.
- Harambam, J. (2021). Conspiracy theories: Misinformed publics or wittingly believing false information? In H. Tumber & S. Waisbord (Eds.), *The Routledge companion to media disinformation and populism* (pp. 302–311). Routledge. <https://doi.org/10.4324/9781003004431>
- Harambam, J., & Aupers, S. (2021). From the unbelievable to the undeniable: Epistemological pluralism, or how conspiracy theorists legitimate their extraordinary truth claims. *European Journal of Cultural Studies*, 24(4), 990–1008. <https://doi.org/10.1177/1367549419886045>
- Hautea, S., Parks, P., Takahashi, B., & Zeng, J. (2021). Showing they care (or don't): Affective publics and ambivalent climate activism on TikTok. *Social Media + Society*, 7(2). <https://doi.org/10.1177/20563051211012344>
- Hornsey, M. J. (2008). Social identity theory and self-categorization theory: A historical review. *Social and Personality Psychology Compass*, 2(1), 204–222. <https://www.psychologie.uni-frankfurt.de/51624871/Hornsey-2008.pdf>
- Howard, P. N., & Hussain, M. (2013). *Democracy's fourth wave? Digital media and the Arab Spring*. Oxford University Press. <https://doi.org/10.1093/acprof:oso/9780199936953.001.0001>
- Islam, M. S., Kamal, A. M., Kabir, A., Southern, D. L., Khan, S. H., Hasan, S. M. M., Sarkar, T., Sharmin, S., Das, S., Roy, T., Harun, M. G. D., Chughtai, A. A., Homaira, N., & Seale, H. (2021). COVID-19 vaccine rumors and conspiracy theories: The need for cognitive inoculation against misinformation to improve vaccine adherence. *PLOS One*, 16(5), e0251605. <https://doi.org/10.1371/journal.pone.0251605>
- Jasanoff, S. (1992). What judges should know about the sociology of science. *Jurimetrics*, 32(3), 345–359. <http://www.jstor.org/stable/29762258>
- Jolley, D., Marques, M. D., & Cookson, D. (2022). Shining a spotlight on the dangerous consequences of conspiracy theories. *Current Opinion in Psychology*, 47, 101363. <https://doi.org/10.1016/j.copsyc.2022.101363>
- Karatzogianni, A., & Kuntsman, A. (2012). *Digital cultures and the politics of emotion: Feelings, affect and technological change*. Palgrave Macmillan. <https://doi.org/10.1057/9780230391345>
- Larson, P. (2023, October 10). *The inherent racism of anti-vaxx movements*. The Conversation. <https://theconversation.com/the-inherent-racism-of-anti-vaxx-movements-163456>
- Lee, C. (2022). COVID-19 conspiracy theories as affective discourse. In M. Demata, V. Zorzi, & A. Zottola (Eds.), *Conspiracy Theory Discourses*. John Benjamins. <https://doi.org/10.1075/dapsac.98.10lee>
- Lewandowsky, S., Ecker, U. K. H., Seifert, C. M., Schwarz, N., & Cook, J. (2012). Misinformation and its correction: Continued influence and successful debiasing. *Psychological Science in the Public Interest*, 13(3), 106–131. <https://doi.org/10.1177/1529100612451018>
- Lewandowsky, S., Gignac, G. E., & Oberauer, K. (2013). The role of conspiracist ideation and worldviews in predicting rejection of science. *PLOS One*, 8(10), e75637. <https://doi.org/10.1371/journal.pone.0075637>
- Loxton, D. (2018). Is the Earth flat? Flat Earthers are back. *Skeptical*, 23(2), 8-13.
- Lubrano, A. (2019, April 10). Anti-vaccine parents are often white, college-educated, “whole foods moms.” *The Philadelphia Inquirer*. <https://www.inquirer.com/news/middle-class-working-class-vaccine-anti-vaxxers-measles-cdc-20190410.html>

- Lünenborg, M. (2019). Affective publics: Understanding the dynamic formation of public articulations beyond the public sphere. In A. Fleig & C. von Scheve (Eds.), *Public spheres of resonance: Constellations of affect and language*. Routledge. <https://doi.org/10.4324/9780429466533>
- Merriam-Webster. (n.d.). Social movement. In *Merriam-Webster.com dictionary*. Retrieved May 4, 2025, from <https://www.webster-dictionary.org/definition/social%20movement>
- Mermelstein, S., & German, T. C. (2021). Counterintuitive pseudoscience propagates by exploiting the mind's communication evaluation mechanisms. *Frontiers in Psychology, 12*, 739070. <https://doi.org/10.3389/fpsyg.2021.739070>
- Olshansky, A., Peaslee, R. M., & Landrum, A. R. (2020). Flat-smacked! Converting to Flat Eartherism, *Journal of Media and Religion, 19*(2), 46–59. <https://doi.org/10.1080/15348423.2020.1774257>
- Opp, K.-D. (2009). *Theories of political protest and social movements* (1st ed.). Routledge
- Paolillo, J. C. (2018). The Flat Earth phenomenon on YouTube. *First Monday, 23*(12). <https://doi.org/10.5210/fm.v23i12.8251>
- Papacharissi, Z. (2014). *Affective publics: Sentiment, technology, and politics*. Oxford University Press. <https://doi.org/10.1093/acprof:oso/9780199999736.001.0001>
- Papacharissi, Z., & Trevey, M. T. (2018). Affective publics and windows of opportunity: Social media and the potential for social change. In G. Meikle (Ed.), *The Routledge companion to media and activism*. Routledge. <https://doi.org/10.4324/9781315475059>
- Papailias, P. (2016). Witnessing in the age of the database: Viral memorials, affective publics, and the assemblage of mourning. *Memory Studies, 9*(4), 437–454. <https://doi.org/10.1177/1750698015622058>
- Pertwee, E., Simas, C. & Larson, H. J. (2022). An epidemic of uncertainty: rumors, conspiracy theories and vaccine hesitancy. *Nature Medicine 28*, 456–459. <https://doi.org/10.1038/s41591-022-01728-z>
- Postmes, T., Spears, R., & Lea, M. (1998). Breaching or building social boundaries? SIDE-effects of computer-mediated communication. *Communication Research, 25*(6), 689–715. <https://doi.org/10.1177/009365098025006006>
- Ramirez, N. M. (2020, July 29). *Tucker Carlson's deceitful coverage of Breitbart's covid-19 "frontline doctors" video*. Media Matters for America. <https://www.mediamatters.org/tucker-carlson/tucker-carlsons-deceitful-coverage-breitbart-covid-19-frontline-doctors-video>
- Robins-Early, N. (2021, November 29). *How the far-right is radicalizing anti-vaxxers*. VICE. <https://www.vice.com/en/article/88ggqa/how-the-far-right-is-radicalizing-anti-vaxxers>
- Scott, J., & Marshall, G. (2009). *A dictionary of sociology*. Oxford University Press.
- Swingle, C. A. (2018). How do we approach anti-vaccination attitudes? *Missouri Medicine, 115*(3), 180–181. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6140172/>
- Taber, C. S., & Lodge, M. (2006). Motivated skepticism in the evaluation of political beliefs. *American Journal of Political Science, 50*, 755–769. <https://doi.org/10.1111/j.1540-5907.2006.00214.x>
- Tajfel, H., & Turner, J. C. (1979). An integrative theory of intergroup conflict. In W. G. Austin & S. Worchel (Eds.), *The social psychology of intergroup relations* (pp. 33–47). Brooks/Cole.
- Tollefson, J. (2021). Tracking QAnon: How Trump turned conspiracy-theory research upside down. *Nature*. <https://doi.org/10.1038/d41586-021-00257-y>
- Ullah, I., Khan, K. S., Tahir, M. J., Ahmed, A., & Harapan, H. (2021) Myths and conspiracy theories on vaccines and COVID-19: Potential effect on global vaccine refusals. *Vacunas, 22*(2), 93–97. <https://doi.org/10.1016/j.vacune.2021.01.009>
- Uscinski, J., Enders, A., Klofstad, C., Seelig, M., Drochon, H., Premaratne, K., & Murthi, M. (2022). Have beliefs in conspiracy theories increased over time? *PLOS One, 17*(7), e0270429. <https://doi.org/10.1371/journal.pone.0270429>
- van Dijck, J. (2013). *The culture of connectivity: A critical history of social media*. Oxford University Press. <https://doi.org/10.1093/acprof:oso/9780199970773.001.0001>
- Walther, J. B. (1992). Interpersonal effects in computer-mediated interaction: A relational perspective. *Communication Research, 19*(1), 52–90. <https://doi.org/10.1177/009365092019001003>
- Wardle, C., & Derakshan, H. (2017). *Types of information disorder* [Infographic]. First Draft News. <https://firstdraftnews.org/wp-content/uploads/2018/07/Types-of-Information-Disorder-Venn-Diagram.png>
- Walsh, J. (2021, May 5). *Tucker Carlson says vaccine-related deaths may be abnormally high — but vaccines haven't been linked to deaths*. Forbes. <https://forbes.com/sites/joewalsh/2021/05/05/tucker-carlson-says-vaccine-related-deaths-may-be-abnormally-high---but-vaccines-havent-been-linked-to-deaths/amp>
- Wukich, C. (2025). Social media engagement in public administration: Communication goals that influence reactions, comments, and shares. *Information Polity, 30*(3), 165–179. <https://doi.org/10.1177/15701255251363912>
- Yzerbyt, V., & Corneille, O. (2005). Cognitive process: Reality constraints and integrity concerns in social perception. In J. F. Dovidio, P. Glick & L. A. Rudman (Eds.), *On the nature of prejudice* (pp. 175–191). Blackwell. <https://doi.org/10.1002/9780470773963.ch11>