

The Rhetorical Implications of Social Media Misinformation: Platform Algorithms During a Global Pandemic

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We engage in a rhetorical, thematic reading of anti-coronavirus messages that perpetuate mis/disinformation online. We specifically discuss how social media algorithms manipulate data to spread disinformation in the area of anti-vaccination rhetoric in our current pandemic conjuncture. We also explore how, as a case study, COVID-19 anti-vaccine rhetoric spreads virally through social media platforms. Drawing from perspectives in rhetorical theory, spectacle, digital literacy, and social media data analysis, we embrace an interdisciplinary approach as a way to explore negative vaccine-related messages from April 2021 through January 2022 by American politicians and media pundits. Using state-of-the-art data analytics from our social media center, we will examine topic-specific messages from Twitter, Instagram, and Facebook.

We argue that addressing issues relating to disinformation and digital literacy are vital for promoting democracy. Since we will address ways to avoid and reduce disinformation, we believe we will advance important pedagogical ideas for sustaining democratic impulses. Finally, we discuss the core skills and knowledge necessary to identify and combat disinformation. We hope this contribution to the on-going conversation about disinformation, anti-vaccine rhetoric, and the unique dangers of social media discourse can provide a perspective about the vaccine debate that has hitherto largely been neglected.

Keywords: COVID-19, disinformation, algorithms, rhetoric, misinformation, social media

We live in a world of misinformation, disinformation, and truth decay. Now, perhaps more than ever, information manipulation is ubiquitous given the sophisticated operations of government propaganda campaigns coupled with the bombardment of chained conjectures and conspiracy theories prevalent in social media; and, quite frequently, regime-based misinformation and the fictions perpetuated in social media reinforce each other. Recently in the United States, some politicians and avid social media users amplified their anti-vaccine messages concerning the COVID-19 pandemic. Of particular concern, of course, is

how these messages transmitted false information for public consumption, which then became widespread. Quite literally, fake news about the “virus” went “viral” over various social media platforms.

Given this reality, we will explore how, as a case study, COVID-19 anti-vaccine rhetoric spreads virally through social media platforms. Drawing from perspectives in rhetorical theory, spectacle, digital literacy, and social media data analysis, we embrace an interdisciplinary thematic analysis as a way to explore holistically negative vaccine-related messages from April 2021 through January 2022. We will argue that addressing issues relating to disinformation and digital literacy are vital for the work that promotes democracy. Since we will address ways to avoid and reduce disinformation into our daily lives, we believe this work can advance important ideas for sustaining democratic impulses.

Using state-of-the-art data analytics from our social media center, we will examine topic-specific messages from Twitter, Instagram, and Facebook. For Twitter, we begin by using social analytics from Meltwater. Then, with all three platforms, we utilize a custom-developed R script that searches keywords and screen grabs. Since many posts have been deleted or removed by the specific platforms, proper citations are challenging. Nevertheless, we will do our best to reference the material in a helpful manner that coincides in spirit with most style guides. For specific messages, readers can always contact the authors for raw data. In the meantime, we harvest anti-vaccine rhetoric from Twitter, Instagram, and Facebook to ascertain prominent thematic content.

The COVID-10 Conjecture

Although at the moment it appears that we may be experiencing a respite from the COVID-19 onslaught, millions of people as a result of the coronavirus are still becoming sick, along with ongoing tragic deaths that have surpassed the six million mark at the time of this writing (Worldometers, 2022). Fortunately, the latest variant of the Omicron strand appears to not heighten mortality levels even though it has a higher contagious spread rate. Despite how most of us want the pandemic to end, there continues to be a sufficiently precarious risk with Omicron. After all, not everyone has been fully vaccinated (for various reasons), and some individuals have poor immune systems, resulting in the incessant twin hazards of sickness – even death – and rapid transmission rates.

Various converging variables, which emerge during a specific historical moment, that produce contestation among different cultural groups can be labelled a “conjuncture.” Conjunctures are small or large organically-emergent crises for which a political leader or pundit reinforces or resists discursive moments (Grossberg, 2018). Conjunctures are unpredictable, although once they appear, most people realize their existence. Conjunctures are important elements to consider because they help us historicize particular discursive moments. As such, the specific moment when a president, for example, addresses the populace and the manner in which the address occurs can be as important, if not more significant, than the message content.

Our current conjuncture might be described as the convergence of several cultural forces, including growing affluence among elites coupled with widening economic disparity with non-elites, a related neoliberal order that functions to maintain smooth capital exchanges between countries, heightened political polarization among the electorate, along with other discursive fields of influence that are all pronounced, framed, and re-articulated in various online outlets (Edsall, 2022). For our purposes, the raging debate about how to handle COVID-19 – especially concerning the vaccine – fits squarely in the digital realm of incessant political divisiveness (Dimock & Wike, 2021).

The Social Media Connection

While polarized political discourse has occurred for centuries and scapegoating of the foreign Other for diseases is not new either, our current period might be called “the social media era,” or a more existential label might be something like “the digital epoch.” In other words, many rhetorical tropes, tactics, and techniques have been employed over the centuries to mark division among different political identities, but in the past they did not have digital networks that heighten, exacerbate, sustain, and constitute the deep trenches of division that we experience today in the political terrain.

Countries and organizations may have various reasons for promoting misinformation or disinformation. It is misinformation when a user inadvertently posts an untruth, but if they willingly and knowingly foster falsehoods, then they are engaging in disinformation. Large corporations may “leak” information to instill doubt in the quality of a competing company’s goods or services. Countries may use disinformation to stoke fears, create fracturing among the populace of a rival country, question the legitimacy of leaders

in opposing countries, to threaten cyber prowess, to distract people from more pressing issues, or simply to confuse people (Guadagno & Guttieri, 2020).

For instance, Russia has been utilizing cyber warfare for many years. Cyber warfare includes the intentional fabrication of information and its purposeful manipulation through various online dissemination techniques, including bots, trolls, and direct social media message blasting. While Russia is not the only country to engage in cyber manipulation, they are perhaps the most significant and potent operator of global disinformation. Analysts and scholars “have described Moscow’s approach to shaping disinformation campaigns through the so-called ‘4D’ model – Dismiss, Distort, Distract, and Dismay, a tactic which has been deployed in Europe as well as the U.S.” (Devdariani & Adzinbaia, 2019, p. 14-15). These techniques are structured in way to achieve optimal and maximum impact, and they work together to delegitimize a target entity (i.e., a country) and cause internal disruption while Russian cultural influence are simultaneously amplified and legitimized (Batiste, 2020; Bergmann & Kenney, 2017; Jackson, 2020; Nimmo, 2015).

In addition to the influence that companies and countries have over what we see in social media, we also bear some of the blame. Since we typically enjoy receiving information that supports our predispositions, we often self-select the people we follow on social media, the messages we re-tweet, and the messages we “like” on a platform. Relatedly, when we are faced with information that appears contrary to our current views, we may actively hunt for information that reinforces our pre-existing views. Known as cognitive dissonance, we dislike feeling incorrect about an issue, so we attempt to locate views that are ideologically associated with ours to minimize the frustration we might feel when confronted with opposing knowledge (Harmon-Jones & Mills, 2019). When we combine the propensity to self-select information exposure with ideological alignment that curtails dissonance, we often become part of an echo chamber. Also known as “filter bubbles” or “information silos,” echo chambers are groups of homogenous thinkers who share information that reinforces their ideological perspectives (Delaney, 2021; Edwards, 2013; Garimella et al., 2018; Garrett, 2009; Lim, 2020; Prior, 2013; Quattrociocchi et al., 2016). Echo chambers can be problematic when they shield us from other valid viewpoints, reinforce harmful logics, and perpetuate political polarization.

As we know, Internet and social media platforms use complex algorithms to surveil, track, monitor, and document browsing histories, user preferences, repeated physical locations that are frequently visited, and data to prime propaganda techniques. Of course, this is all supposedly done for the sole purpose of tailoring user preferences with product or service sellers. This claim provides a beneficial talking point by corporations, but in reality, we know that companies (and governmental agencies) mine this data for social control, seduction for goods and service that are unnecessary, and political manipulation. In terms of how disinformation emerges from algorithmic processes, Walker et al. (2019) argue, “Digital trace data has been increasingly linked to disinformation, misinformation, and state propaganda across Western industrialized democracies and countries in the Global South, where state and non-state actors seek to strategically diffuse content that heightens partisanship and erodes the general trust in democratic institutions” (para. 3). Simply put, when media sources that we follow try to debunk or sow seeds for confusion, then we believe the media to which we are affiliated as they portray other news sources as illegitimate. This transcends news organizations as well, since information manipulation often happens to discredit political rivals, pit marginalized groups against each other, and foster toxic polarization (Delaney, 2021; Lim, 2020; Zompetti, 2018). Most social media platforms utilize algorithms that, at the very least, suggest a para-social connection between the rhetorical agent and their audiences (Denghua & Lidan, 2020).

In addition to the persuasive technical infrastructure and construction of symbolic relationships, social media platforms operate in their own cultural niches. In other words, since the world of social media apparatuses is highly competitive, each platform seems to carve out at least one unique attribute that other social media applications do not offer. For example, Twitter satisfies users with short attention spans and users who likely want information at accelerated speeds. Instagram, however, privileges pictures, whereas TikTok concentrates on brief videos. Of course, Facebook does a little bit of everything. Regardless, the significant point here is that while social media companies are prospering by actively or complicitly peddling disinformation, users are accumulating inaccurate knowledge that can have some very serious implications. As a result, we examine anti-vaccine rhetoric that spreads disinformation on the social media platforms of Twitter, Instagram, and Facebook. We begin by exploring the presence of algorithms in social

media and how they specifically impact information regarding COVID-19 vaccines. Since all social media platforms employ algorithms, we start our investigation here since it will lay the foundation for our more specific analysis of each separate platform.

Algorithms

With the rise of technology, society continues to use social media as a source of information. In comparison to media found in newspapers or on television, social media is unique because it operates with the use of algorithms. Specifically, these are the “mathematical set of rules specifying how a group of data behaves” (O’Brien, 2022, Section 2). Within social media, they help provide order for the content in which a user views different posts on their feed. The algorithms on varying platforms such as Facebook, Instagram, and Twitter, make use of a wide variety of factors including popularity, content type, relationship, and recency (Petrescu & Krishen, 2020). Ultimately, these factors shape the nature of the algorithm for the content occurring on a specific individual’s feed.

Algorithms can use these factors in a wide variety of methods to deliver media to a user’s page. One of the most common methods relates to similarities of an individual’s tastes or preferences. For example, users will likely be directed to content that resembles media for which they have already showed interest within a specific category. The inverse relationship also applies, meaning that for any category of media that a user does not express interest will not show up on a user’s feed. Digital algorithms also act as a facilitator of collaboration in that users will be matched with each other if they share similar interests. This can be seen in apps like Instagram, Facebook, and others when a user is recommended to “follow” a different individual (Golino, 2021).

Although appearing helpful, these algorithms are often very deceptive due to their profound impacts. Often, these automatic algorithms directly lead to the spread of misinformation. Individuals may post false stories or content, and the algorithm may then circulate the content without regard to the veracity of the content (Holmes, 2016). Or, in other instances, trolls – automated users that search and spread particular content – may seek or create misinformation, and then purposefully spread it, creating disinformation (Menczer, 2021). Platforms are constantly playing a game of “whack-a-mole” where moderators analyze the content of the posts in distribution. The downfall of this approach

is that the posts can often circulate for a long period of time and, in turn, reach a significant audience before their removal by a platform administrator or moderator (Cochiarella, 2021).

In some instances, the spread of this misinformation can lead to echo chambers. An echo chamber on social media occurs when a user's opinion continues to be reinforced by the content with which they engage on varying platforms (Cinelli et al., 2021). This means that users who hold viewpoints with little evidential support can be misled by the disseminated misinformation occurring on social media. This demonstrates one of the substantial problems with digital algorithms because they can often reinforce echo chambers based on unjustified and unsubstantiated views. This was seen several times in the midst of the COVID-19 pandemic with the spread of vaccine misinformation. Users' anti-vaccine views toward the COVID-19 vaccine continued to be reinforced in an echo chamber formed by the digital algorithms of varying social media platforms. While we focus our attention on Facebook, Twitter, and Instagram, targeted attention of TikTok's algorithm also amplified COVID-19 misinformation (Dickson, 2020; Grierson, 2021; Provenzano, 2021).

Additionally, algorithms often violate democratic ideals due to their lack of transparency. Many social media platforms have received major pushback given the secrecy surrounding the details of algorithms. For example, Kornbluh (2022) discusses how examples of conservative profiles who engage with transphobic related material are often recommended by the algorithm to view extreme, violent, and more hate-related content. Examples like these spark people's curiosity as to the details that comprise algorithms on major social media platforms. However, many platforms withhold the specific information or criteria used for their algorithms since they are viewed as proprietary, which makes it difficult for legislators, researchers, and the public to gain an understanding as to how the algorithms are processing.

Furthermore, regardless of the mis/disinformation that is spread, algorithms tap into a user's selected posts, feeds, and ads, thereby placing content onto the feed that appears in-line with the user's interests. This chameleon-like quality can obviously be serious if a user does not detect material that is not aligned with their actual interests. As one scholar poignantly declares, "The algorithms that orchestrate our ads are starting to

orchestrate our lives” (Pariser, 2011, p. 9). Unless the algorithm and/or the algorithmic content are identified, users will continue to make choices and believe content that has been chosen for them, thereby undermining any legitimate notion that the material was actually self-selected, much less desired. And, simply put, even if misinformation is placed on a platform with no malicious intent, the algorithms at work can exacerbate the false information or heighten the toxicity of otherwise fruitful dialogue.

To help combat the negative effects of algorithms, there have been several varying proposed solutions. One proposal that appears in various iterations is social media regulation (Grimes, 2020). Since social media platforms are where most disinformation occurs, many argue that they should be responsible for identifying and curtailing its prominence. Of course, regulating multinational media corporations, fiddling with issues that jeopardize individual liberties of expression, and enforcing any regulatory regime are mammoth challenges. Another proposed idea is to potentially change the nature of the social media apps rather than the algorithm itself. Cochiarella (2021) references the “addictive design features” that many apps such as TikTok and Instagram use. These include the “like” button and the infinite scroll feature which allows a user to continue to engage with media for as long as they wish. These features often cause users to engage with the algorithm for extended periods of time and result in a more likely chance that an individual will be exposed to misinformation (Basch et al., 2021). For TikTok in particular, the sounds and visuals add other levels that seduce users into attractive content or amplify particular echo chambers (Culliford, 2021). This solution proposes that if we can alter some of these major addictive features and lower users’ social media use, then we can lower the access to misinformation. Another proposed solution is called “friction” (Mirani, 2020). As previously discussed, many are displeased with the “whack-a-mole” approach taken by social media companies because it results in the “playing of defense” when combatting false information. Instead, “friction” forces social media platforms to “play offense” and take a preventive approach that will slow down the process of spreading information. This would allow for the platform to find misinformation before it has circulated to a large audience. Of course, a final solution is to heighten digital literacy so that users are more knowledgeable about how mis/disinformation is created and how it spreads. As Pariser (2011) notes, “... it’s becoming more important to develop a basic level

of algorithmic literacy. Increasingly, citizens will have to pass judgment on programmed systems that affect our public and national life” (p. 228). While there may never be a panacea, we need to begin immediate attempts to curtail the problematic consequences generated by algorithms specifically and mis/disinformation generally.

Twitter

With over 211 million daily users, Twitter is a mammoth social media network with widespread influence (Bagadiya, 2022). From 2019 to 2020, Twitter saw a 24% increase in use, mostly as a result of lockdown isolation from the coronavirus (Sehl, 2020). However, at the time of this writing, the tinkering of the platform by its new owner, Elon Musk, may reduce Twitter use and its influence in the future. When compared to other social media applications, Twitter offers several distinct features. First, Twitter has a 280-character limit per post. This maximum character cap automatically truncates messages or fosters their concision. Although a user can submit a number of posts in sequential order that produce a “thread,” generally users attempt to fit their message into a single post most likely because the arbitrary 280-character limit subconsciously implies a message should come to a close instead of subsequent posts that form a larger thread (Roeder, 2021). Indeed, as Sarah Perez (2018) notes, “Brevity, it seems, is baked into Twitter” (para. 2). Second, related to the requirement of succinctness, Twitter precipitates power language – including hyperbole – to lure and hook readers. According to Bratslavsky et al. (2020), the purposeful crafting of linguistic emphasis fosters a digital spectacle. Following Debord’s (2002) thoughts on spectacle, Bratslavsky et al. argue that the word economy of tweets equates to a monetized digital economy, since enticing activity generates advertisement traction, encourages reactions, and triggers re-tweets along with picked-up reporting and referencing by mainstream media outlets. Finally, Twitter is a unique application in that it encourages real-time reporting. Now that users can post ideas, pictures, and videos to a social media platform that, in turn, can go viral almost instantly, the idea of “news” becomes literalized with the rush by journalists and citizen journalists alike to report a story before anyone else. The adrenalized pursuit of real-time news often means sensitive events that might also involve sensitive individuals (e.g., celebrities, politicians, or law enforcement) are posted without all of the facts, while the event is still under

investigation, or without the due diligence necessary to protect people's privacy and due process rights.

As a result of these unique characteristics, Twitter constitutes an ethical dilemma. Twitter's advantages of quick summations, seductive resonance with a variety of users, and little to no barrier to entry that allows nearly instantaneous message generation can also indicate major negative consequences. The spectacle of Twitter can be distracting, the random character limit can shorten and disjoint messages, and the push for instantaneous posting can erode individual liberties. These pitfalls risk jeopardizing the veracity of information in the platform. This can be particularly problematic if the information is used to support important decision-making, to obtain valuable news knowledge, or to provide the only information a user considers. In short, to the extent that inaccurate mis/disinformation exists on Twitter, user habits and faith in the platform can cause disastrous decisions, erode trust in news information in general, and seriously threaten the maintenance and viability of democracy (Metzger & Flanagin, 2013).

When an issue involves life and death, the potential consequences to inaccurate information can be catastrophic. Of course, as we consider the facts and feelings associated with the COVID-19 vaccine, we should hope that people would yearn for certain and confident knowledge on such a serious issue. Unfortunately, Twitter is replete with mis/disinformation regarding the pandemic. In January and February of 2022, nearly two years after the coronavirus began to spread globally, we observe a small representation of the ongoing frustrations with the pandemic. During those two years, Americans grew tired of the impact the coronavirus had on society (literally called, "COVID fatigue"), especially since state and municipal information and policies often deviated from the federal government's proclamations (Hassan et al., 2021). And, while most citizens would favor information from the White House over other news venues given that the President works in conjunction with the Centers for Disease Control (CDC) and has real-time updates with the World Health Organization (WHO), Americans became weary from the constant changing of federal-level announcements and initiatives. In fact, the inconsistent messaging at the national level, coupled with the uneven messages from governors and mayors, has resulted in a growing distrust of government's assessments. If citizens cannot

trust the information disseminated by its government, then they have a serious problem given that other news outlets are typically even more inaccurate.

For example, on February 25, 2022, Twitter user Lachlan Pedro declared, “The thing people don’t understand is that it all started with them making us take the vaccine. Probably made in Russia by Putin’s minions and sold to Pfizer and Astrazeneca in order to start this war.” It is unclear which “war” this user is referencing, but obviously they believe Russia is somehow involved with the creation of the coronavirus. Taken by itself, this tweet may not be problematic; however, if users believe that COVID-19 is a Russian conspiracy, then it would not take much for them to then believe that the virus is not very harmful, or perhaps they might not trust the U.S. government when it instructs citizens to wear masks, practice social distancing, and obtain the vaccine. Indeed, if the government is not forthcoming with the origins of the virus, then citizens may lose faith in other statements from the government.

Relatedly, the insertion of conspiracy theories, alternate scenarios, and omission of significant facts breed confusion. Most Americans already lack basic competencies relating to politics and medical issues. A self-perception of inadequacies about a certain political topic or, simply, a feeling of ignorance can prompt individuals to adhere to the first – or one of the first – explanations they hear about the controversy. As Jean-Michel Hatton (2022) tweets, “... for some people, that means embracing disinformation and false theories because they appear to offer answers or explain things we don’t understand.” In this way, the mere existence of mis/disinformation can be disruptive; and, of course, if the *faux* knowledge is reiterated via retweets or when traditional media choose it as a way to circulate the message, then the propensity for the mis/disinformation to catch-on and become amplified becomes a very real possibility.

In addition to perpetuating mis/disinformation on Twitter, some extremists weaponize the platform to score political points. Lauren Boebert – representing Colorado’s 3rd House Congressional district – is a case in point. Although the tweet is confusing in itself because she equates President Biden to both the fascist Nazis and the communist Chinese, congresswoman Boebert crafts and articulates on Twitter her disdain for a vaccine “mandate” by highlighting how she is a savior for individual liberties: “Biden has deployed his Needle Nazis to Mesa County. The people of my district are more than smart

enough to make their own decisions about the experimental vaccine and don't need coercion by federal agents. Did I wake up in Communist China?" (Boebert, 2021). In this way, "Boebert doesn't like giving people information to make their own decisions. She likes obfuscating the truth for her own political gain at the expense of those who believe her" (Schrader, 2021, para. 10). If, indeed, the "spectacle is not a collection of images; it is a social relation between people that is mediated by images," then it "cannot be understood as a mere visual deception produced by mass-media technologies. It is a worldview that has actually been materialized" (Debord, 2002, p. 1). By equating Biden to fascism and communism, Boebert displays a spectacle that hooks the audience while pushing her own misinformation. However, the misinformation is subtle as she distracts us with the value-loaded terms of "Nazis" and "communists." As the audience is directed to consider the relations between Biden and extreme forms of governing, Boebert, as the rhetor, exemplifies and characterizes her social position as someone on the side of the people. Her overall persona – as she positions herself as a righteous public official – embraces a conservative populism that weaponizes social media in order to propagate her false depictions of rival political ideas and President Biden.

Noted public officials are, of course, not the only culprits of channeling misinformation on social media. For instance, by attacking their opposition, labeling opponents with derogatory names, and willfully spreading disinformation, some citizen political junkies use Twitter as a way to accomplish these different rhetorical tactics into a single message. On October 5, 2021, Racer1X tweeted, "Vermont – 76% of September COVID-19 deaths were Fully Vaccinated ... Explosion in breakthrough cases ... The Vaccinated are superspreaders." Similarly, on August 25, 2021, a different user tweeted, "72% of 37 millions cases of COVID-19 are vaccinated. THE VACCINATED ARE THE SUPERSPREADERS" (Rajean, 2021). And, on February 12, 2022, Three Equals Five simply posted, "The COVID-19 vaccinated are superspreaders." Finally, on October 12, 2021, Nick Barnes tweeted, "You understand that the vaccinated are just as likely to spread COVID-19 right? In fact it could be argued that the vaccinated are the real superspreaders as there are less likely to experience symptoms therefore less likely to isolate/quarantine." While essentially saying the same thing, these Twitter users mimic

and reinforce the misinformation they have digested and, in turn, perpetuate the spread of misinformation in very word efficient, yet luring, tweets.

Overall, we know that Twitter is used to spread mis/disinformation. When the topic concerns something of such gravity as COVID-19, both misinformation and disinformation are highly problematic. To make matters worse, the true believers of disinformation post social media messages in an almost cult-like fashion, attempting to champion their cause. For example, user D (2022) tweets, “The masses, us, the taxpayers, are resisting!! We are done with being lied to. We are done with being Guinea pigs for an untested vaccine. Rise up!!” We applaud people who have conviction and passion, but when the issue concerns a pandemic, such messages either infuriate the people who believe the opposite, or they risk persuading swaths of Twitter users who are on the fence. Either way, there is too much at stake.

Instagram

Instagram, like Twitter, is a global social media network. By showcasing pictures and brief videos, Instagram functions rhetorically more with visual imagery than with linguistic text (Bagadiya, 2022). Unlike Twitter, however, Instagram has many more users – close to two billion with over 500 million daily users (Bagadiya, 2022). Additionally, there are no character limits, which puts Instagram into a similar camp as Facebook, but distinctly different in form from Twitter. As such, mis/disinformation rhetoric is explicit and prevalent on Instagram. Six general themes emerge: we should distrust the government and CDC, pro-vaccine messages do not make sense, pro-vaccine advocates lack intelligence, the vaccine is generally harmful, the core issue at stake is freedom, and calls to action for people to resist the pro-vaccine culture.

According to United We Stand on January 9, 2022, we not only cannot trust the government’s pro-vaccine messages, but we also need to understand that their rhetoric is a front for tyrannical communists. They note: “The Globalist's puppets can't seem to get their stories straight. So let's highlight there false narrative, what the MSM usually calls a Conspiracy Theory, the Commie Puppets are slowly admitting that they are inflating the C19 hospitalization numbers, once again. WITH C19 NUMBERS ARE BEING LUMPED TOGETHER WITH FROM C19 NUMBERS. UNITED WE STAND UM TYRANNY WILL FALL” (United We Stand, 2022). A similar sentiment was posted by an anonymous user

on August 21, 2021. As part of a much longer message, they write, “CDC has lost all its credibility and is funded & operated by vaccine patent/stakeholders” (Anonymous, 2021a). As with most conspiracy advocates, some users note how the CDC and the government are involved with an intricate corruption racket: “The CDC is a criminal front for the medical cartel vaccine racket. Run by psychopaths with over 3 million autistics on its hands and all vaccine deaths since its inception which included all cot deaths which were running at 10,000 a year just in USA” (Whale, 2020). And, another anonymous user goes so far as to posit that pro-vaccine supporters are hired actors: “The CDC is paying actors to impersonate doctors to promote harmful COVID-19 vaccines” (Anonymous, 2021b). In a related theme and one that reinforces the distrust theme, some users argue directly that pro-vaccine arguments are non-sensical. For instance, United We Stand claims on December 27, 2021, that “Something to ponder? Does their narrative still make sense?” And a few days later, another user posts, “WAKE UP! DONT COMPLY!! It doesn't make sense whatsoever” (Voices21, 2022).

Of course, if the primary evidence to support a pro-vaccine position stems from the CDC and/or the government, then pro-vaccine advocates must be gullible or unintelligent, or both. This relationship allows anti-vaccine supporters the opportunity to utilize *ad hominem* fallacies. *Ad hominem* arguments are, of course, a type of informal logical fallacy that refers to when someone is “attacking the person who made the assertion instead of trying to disprove the truth or acceptability of what has been asserted” (van Eemeren et al., 2012, p. 347). For example, The Woke Room (2021a) writes, “Smart people are most vaccine hesitant...thoughts?! This is can be [sic] found in page 14 of the UN document entitled: ‘Guide to COVID-19 vaccine communication.’ Sheep are easily manipulated.” By acknowledging the rhetorical savviness of the CDC and the government, Alyssa Baum (2021) intimates, “Anybody know what happened to people’s brains to make them so susceptible to manipulation & brainwashing??”

It is one thing if Instagram users criticize the CDC and government; it is altogether something different if they also claim that the vaccine is dangerous. By using the *ad baculum* fallacy, anti-vaccine advocates attempt to frighten people as a form of persuasion. Several days after they posted how pro-vaccine believers must be brainwashed, The Woke Room (2021b) declared, “The [vaccine is] causing more harm than the actual virus.... from

the beginning the question was always we do not know the side effects of the [vaccine] but we were told it was SAFE & EFFECTIVE.” With a dose of sarcasm, Chewing (2021) also questions that, “Wait until the normies figure out vaccines do in fact cause autism and the CDC FDA and pharma have been covering it up for decades.” If we continue to follow the so-called logic of anti-vaccine constituents, it should probably be no surprise that opponents to the vaccine occasionally resort to foul language and hyperbole. One user – named I Trust the Science, which obviously aligns with the claim made by vaccine advocates that trusting science means we should trust and embrace the vaccine – opens with a question that is actually just an introduction to their larger impact contention: “Does the CDC exist to just exterminate us as fast as possible?! these fucking guys. Just use Citronela [sic] essential oil diluted in a spray bottle. Deet will eventually be banned just like a lot of other toxic products these guys push” (I Trust the Science, 2021). This sort of disinformation is more troubling when it comes from an infamous influencer, like Joe Rogan. In October of 2020, Rogan posted on Instagram that Bill Gates said 80% of those who took the Moderna vaccine became sick, but Gates actually said that 80% experienced some sort of side effects – this is a major difference, but Rogan’s version obviously characterizes the vaccine as much more harmful (Rogan, 2020). Claims that the vaccine will exterminate the human species sound wildly outlandish, but their extremism is heightened even more when we realize most of these social media users are avid believers of such dogma, especially if the message emanates from an influencer like Joe Rogan.

Perhaps the main reason why so many anti-vaccine believers articulate these sorts of claims is because the premise of encouraging or requiring vaccines arguably strikes at the very foundation of their core ideology – that the government should not interfere into our personal lives, especially when it concerns issues of the body and fundamental individual rights. To oversimplify the issue and explicitly articulate their position, one Instagram user simply notes, “This isn’t about being anti or pro vaccines... this is about FREEDOM!!!” (Faith Food Freedom, 2021b). When addressing President Biden’s objective to force vaccine doses, an anonymous user argued, “Earned a right??? I’m an American. I have rights... it’s called the constitution. This guy [Biden] is out of his mind!!!” (Anonymous, 2021c). A classical rhetorical trope, known as an enthymeme, labels a particular type of argument that has either a missing premise or conclusion so that the

audience can fill-in the missing element, thereby involving the audience into the message and increasing the likelihood of the message's persuasive effect (Conley, 1984). Hence, many Instagram consumers use disjointed phrases that require the audience's engagement with the argument. For instance, user Kate (2021) simply states, "MY BODY. MY CHOICE." This conjecture presumes an almost unfettered, absolute claim to privacy and control over her body. The audience must supply – in order for the argument to make sense – the claim that the vaccine controversy involves her body, that she actually has a choice, that one choice is clearly superior to another option, and that this formulaic mantra exists absent any contextual forces, such as community health and safety that might challenge preferences for individual rights. Certainly, it should not go unnoticed that most anti-vaccine believers are conservative and who might, given their conservative ideology, also oppose the "my body, my choice" argument when it comes to a women's right to "choose" an abortion, but potentially perceiving hypocrisy in this context should be examined in a future study. Finally, we should also note that anti-vaccine advocates deploy slippery slope contentions that buttress their freedom claims, as Faith Food Freedom (2021a) posits, "Vaccinated or not... we all will eventually be stripped of our freedoms." Of course, there is no explanation for how the vaccine, by itself, will somehow cause the disappearance of all our freedoms. Undoubtedly, other issues or cultural forces may interfere with our daily lives to the extent that they risk eliminating our freedom, but without contextualization, it simply is too confusing and incoherent to connect the dots with this argument.

Naturally, for some religious believers, the scientific debate about the vaccine is irrelevant since faith in God is sufficient for us to be safe while enduring the pandemic. For example, Faith Food Freedom (2021c) declares, "Fear is the virus. Stop putting your faith in man. Stop falling for the lies. Follow the one true creator whose in control." Reminiscent of the social media meme, "faith over fear," some devout religious believers choose to disregard all controversial arguments and positions and, instead, simply turn it over to God (Cockes, 2021). Hence, on one hand, some who oppose the vaccine believe that God will provide and protect his followers. Yet, on the other hand, if God chooses to not offer protection, then we need to coalesce and organize in order to protect our individual liberties. As Alberta Truther Mama (2021) declares:

It's time to wake up. There is so much of the TRUTH right in front of us. Actually! Yet some still don't see any of the bullshit. The bullshit is thick. It's literally all over everything. When you are awake to all the things, like ALL the things... you will call BULLSHIT on it all. Do you see the mockery? Do you see the bullshit everywhere? It's time so speak up. It's time to call bullshit on the people who are spreading bullshit. Karen I'm talking to YOU. Use your voice. Be the voice. Speak up. Advocate!

Another example of this is represented by AM Michaelski (2021):

These people are criminals and they don't care about us. With every day that passes that will become more and more obvious to everyone. It's time to speak out. It's time to stop bowing down and start fighting back against these vile, genocidal elites who want complete totalitarian control over our bodies and our lives. When you know the truth, you have no choice but to speak out. Regardless of what it costs you personally. Are you speaking out publicly? If not, why not? There is no excuse anymore. Andy Wakefield did a livestream on Facebook in 2016 and he told us to vote for Trump. Said he was our only hope. Don't think for a second that Mr. T supports these criminals. He does not. But he can't call them out until enough of us rise up. It's time. We need every voice. Now. Including yours.

Obviously, if a person has faith in God's providence to address the coronavirus, then they do not need to adhere to the guidelines – or mandates – from the government, especially if there are risks associated with the vaccine.

While polarizing messages, especially relating to COVID-19, may not be as frequent on Instagram as they are on Facebook and Twitter, we need to remember that Instagram use is increasing significantly, particularly with younger users (Hamilton, 2020; Savitz, 2021). In addition, the visual aspect to Instagram posts provides a uniquely persuasive component that helps facilitate the spread of disinformation (Braun & Loftus, 1998; Highfield & Leaver, 2016). Here we should mention how, “misleading visual information has been found to have greater influence than deceiving verbal information on altering information learned through individuals' direct experience. Indeed, researchers have pointed out that the visual aesthetics of social media platforms can make it difficult to establish authenticity” (Mena et al., 2020, p. 2). Furthermore, Instagram's unique user

algorithm – its “recommendation engine” – can “push a user who might follow one misleading or malicious medical page to following a couple dozen within a matter of minutes,” as it “conflates all kinds of health-related content” (Tiffany, 2019, para. 5). In this way, “Instagram has become a weaponized platform despite its reputation in popular culture as a cool space for young people to post their selfies, food, and travel pictures” (Al-Rawi, 2021, p. 276). In fact, the common perception that Instagram is a playful platform might make it more insidious and risky as people no doubt will be seduced by the entertaining value of Instagram (Albright, 2017). But, when the algorithm predicts political ideologies in addition to recipes that emphasize coriander, the platform recruits, then maintains, followers – with varying levels of commitment and enthusiasm – to the cause.

Facebook

With over 2.9 billion monthly users (Statista, 2022) and nearly two billion daily users (Bagadiya, 2022), Facebook is by far the most used social media platform. While many access Facebook for entertainment and to stay connected with friends and family, at least 43% of Americans use Facebook for their news exposure (Bagadiya, 2022). The level of Facebook activity is alarming in the COVID-19 context. According to the Center for Countering Digital Hate (CCDH) (2021a), “anti-vaccine content posted to Facebook over 689,000 times in the last two months shows that up to 73 percent of that content originates with members of the Disinformation Dozen of leading online anti-vaxxers” (p. 7). This means that nearly three-quarters of anti-vaccine exposure originated from just twelve major Facebook influencers (Bond, 2021). Statistically this means that influential content generators on Facebook risks a major impact on the number of people choosing the vaccine. In fact, according to the Vaccine Confidence Project (Loomba et al., 2021), the digital misinformation dispersing on Facebook persuades up to 6.2% of users to not become vaccinated.

Given the general widespread use of Facebook and its use as a major conduit for distributing vaccine misinformation, it should probably come as no surprise that discussions criticizing and attacking the vaccine are also prominent. As such, there are a number of rhetorical themes that emerge, which we place into the following thematic

typology: 1) anti-government positions, 2) focus on liberty, 3) the effectiveness of faith and natural immunity, and 4) fear appeals.

Criticism of the government is pervasive on Facebook. The outspoken Maryland Republican, Kimberly Klacik, posted on January 22, 2022, that Biden gave Congress an exemption to his so-called vaccine mandate. Klacik was referring to President Biden's executive order, which only applies to the Executive Branch agencies and offices. Thus, Biden's initiative had no bearing on Congress, but Klacik seizes the opportunity to (mis)characterize Biden. Similarly, famous Black conservative, David J. Harris, posted a video on Facebook where he states that Biden promoted "mandatory" COVID-19 vaccines; however, Biden was encouraging American to acquire the vaccine. Biden never mentioned that vaccinations were compulsory, and he did not use the word "mandate" (Harris, 2021). Those Facebook posts attempt to portray the Biden administration as manipulative. Other anti-vaccine and anti-government posts simply attack the inefficacious and potentially unsafe nature of the vaccine, such as "Many Americans are unaware that they are absorbing untested and unsafe chemicals in their products" (CDCWhistleblower, 2021b).

While many believe the government is inept, perhaps even dangerous, when dealing with the vaccine specifically, other Facebook users attack the government, Dr. Fauci, President Biden, and the CDC in other ways. The conservative media outlet, *The Daily Wire*, sets the tone for what they see as a nefarious government ruse to maintain power:

The Biden administration issued its dictatorial and unconstitutional vaccine mandate this morning, threatening private businesses with crippling fines if they don't force their employees to be vaccinated or tested weekly. The Daily Wire is fighting this authoritarian nonsense. We have already filed a federal lawsuit in the 6th Circuit Court of Appeals this morning. This isn't about whether vaccines are good. There is no bigger fan of vaccines than I. This is about whether Americans ought to have liberty, or whether administrative tyranny ought to rule our lives. Employees are not children. Employers are not parents. And the United States government must not be an administrative dictatorship. (*The Daily Wire*, 2021)

Because some conservatives perceive that Biden is using his position to secure a type of power, they characterize the Biden administration as "authoritarian" and "dictatorial." Later, in 2022, *The Daily Wire* continued their position when they wrote, "The moment

Biden announced his unconstitutional vaccine mandate, *The Daily Wire* responded with three words: Do Not Comply. Then we filed a lawsuit in federal court. This week, the Supreme Court agreed with us and struck down this authoritarian vax mandate” (*The Daily Wire*, 2022). Perhaps the best example of posts that characterize an inept, if not corrupt, CDC and government in their handling of the coronavirus comes from now infamous anti-vaxxer, CDCWhistleblower (2021c), who writes:

Anyone else think these CDC folks are either made up, or hiding their identity with wigs, odd makeup and other deceptive methods? The CDC needs to be exposed, shut down, dissolved, and banned. Afterwards the traitors, liars, fear mongers and criminals running it need to be publicly tried in court, live on air. And the top perps are to be sent to Gitmo for their final exit interviews. The CDC has acted in a coup fashion and committed numerous crimes against humanity, acts of war against the people and we will not forget their crimes.

By not tip-toeing around the issue, CDCWhistleblower pronounces not only the lack of faith many Americans have in their government’s approach to the pandemic, but they also accuse government elites of wantonly engaging in criminal behavior.

Similarly, Sean Hannity (2022) depicts Biden’s government as a failure concerning the coronavirus. On his Facebook page, Hannity notes that Biden mishandled the pandemic and has not been transparent. As such, Hannity writes, “He came into office with two safe and effective vaccines. Millions of people had already been vaccinated. Yet more Americans have now died from coronavirus under President Joe Biden than under the previous president” (Hannity, 2022). We find it interesting, however, that these inaccurate depictions of the Biden administration – all of which come from people who are not elected officials – are pale in comparison to some of the Facebook posts from the Congresswoman who represents Georgia’s 14th House district, Marjorie Taylor Greene. Greene, too, defines Biden’s policies as “authoritarian,” but she does not stop there:

The audacity of Biden & the Dems to be angry with people, who choose to trust their own immune systems against COVID-19 & reject authoritarian vaccine mandates, is glaring while the Biden admin limits supplies of monoclonal therapeutics to R states possibly killing people. When governments control who gets life saving treatment, they play God. This is your first real taste of Communist

controlled health care. It's purely criminal for Biden's HHS to limit any supply. All lives matter. Or do only D states & Vax lives matter. Is that equitable?" (Greene, 2021b)

While responding to vaccine "mandates" (which there were none at the federal level) and mask policies, Greene argues that these policies are "not about COVID-19. It's communism" (Greene, 2021g). Of course, Greene provides no evidence for how these initiatives are communist. Instead, she uses the value-loaded and hyperbolic ideological moniker – called an "ideograph" (McGee, 1980) – to symbolize, if not equate, Biden to the evils of communism (which, incidentally, must also be taken on faith since she fails to explain how communism is inherently evil). To be fair, in one of her Facebook posts, she does mention some reasoning, in a circular and disjointed way, when she claims "Using government power to force and punish healthy people to get a vaccine that supposedly protects them from a virus that is very unlikely to hospitalize or even kill them is communism. No Vax for me. I'll always fight for People's freedom. Save America, Stop Communism!" (Greene, 2021f). If a Facebook user can somehow stumble through Greene's disjointed and incoherent logic, then the overall argument that is levied can result in dangerous beliefs and practices.

Additional criticism of the Biden administration can be seen on the Facebook page of the Michigan Republican Party (2022). They argue that "[I]f we don't fight BASELESS vax mandates, the mandatory booster circus will go on FOREVER. Help us stand up to mandates now." It is, of course, ironic that these anti-vaccine spinsters castigate Biden's lack of proof or scientific evidence supporting the benefits of the vaccine; yet, the same anti-vaccine users also omit reasons or facts in their social media posts. This may be a consequence of how social media platforms require truncated messaging, but since users can post more than one message (i.e., they can formulate a discussion "thread"), it is difficult to not think they might be lazy – or strategic – in their parroting of other users' anti-vaccine propaganda.

In terms of political strategy, anti-vaccine rhetors structure a compelling narrative, even if it is riddled with factual inaccuracies. Once they have established the government has omitted information and set-up the belief that the government is untrustworthy, anti-vaccine advocates can then cast their criticism more widely. For example, Sean Hannity

(2022) declares, “Hannity has an important message for the elected swamp creatures, media mob, and Biden sycophants: ‘You’re all enablers of failure.’ ‘You say nothing, you do nothing as Joe Biden completely mismanages COVID-19.’” In this way, Hannity and others shift the discussion away from problems with the vaccine to specifically targeting and attacking the integrity of pro-vaccine advocates.

Although the coronavirus pandemic transcends nation-state borders, is highly contagious, and by any reasonable standard constitutes a compelling state interest, anti-vaccine proponents incessantly describe vaccine requirements and policies as violating individual liberties. To the point, they characterize the controversy as an attempt by the so-called “authoritarian” government to distract and subtly encourage citizens to embrace the vaccine despite its potential side effects and possibly, even death. For example, Marjorie Taylor Greene (2021a) posts on Facebook that, “I introduced H.R. 2317 We Will Not Comply Act to stop discrimination in the work place from vaccine mandates bc I saw this coming. We don’t take orders from Fascist in my office. Remember the Nuremberg Code.” Of course, Greene takes the issue to the extreme by equating vaccine mandates to Nazi war crimes, but her fundamental point, of course, is that citizens should not be required to take the vaccine because it violates their personal liberties. Later, she writes on Facebook, “I am OPPOSED to government mask and vaccine mandates! Should be a choice, not forced!” (Greene, 2021c). A similar opinion is expressed by Texas politician, Patrick McGuinness, who notes on his campaign page that, “Texans are free people. >> We make our own decisions. >> It’s our God-given right! Add your name to the list of Texans who want to see real action by state leaders to end the vaccine mandate!” (McGuinness, 2022). And, as we saw in other social media venues, some anti-vaccine advocates use pro-choice rhetoric, such as “My body my choice. NO TO MANDATORY VAX” (Anonymous, 2021d).

A final theme that emerges from Facebook messages is various *ad baculum* appeals. We should note that, “Literally, ‘an argument to the stick’, the *ad baculum* is an argument which turns on a threat or reference to dire consequences,” and it can be seen “as the blunder of concluding the truth of a proposition on the basis of an appeal to force, for it is the fear of force [which causes] acceptance of a conclusion” (Woods, 1998, p. 493). In the context of both facing severe threats and encountering online the discourse surrounding

such threats, we experience rhetoric as spectacle. When algorithms, in particular, make decisions for us, we find ourselves enveloped by spectacle in that “no longer something that enters into the sphere of experience in fulfilling particular needs or desires, but has itself become the constituent of the world of experience” (Chu & Sanyal, 2015, p. 399), especially as “a *totality* in which all life occurs and through which all life is experienced” (Thatcher & Dalton, 2017, p. 136-137). When we peruse our Facebook feeds and see a post like this, we cannot avoid the depressing affect of spectacle:

Vaccinated or not... we all will eventually be stripped of our freedoms.
Vaccinated but still need a mask.
Vaccinated but need proof.
New variants.
Booster shots.
More Lockdowns.
It will never be enough.
But WE'VE HAD ENOUGH.
This is NOT about science.
This is NOT about health.
The government doesn't have a clue about this virus and they certainly don't care about your health.
We've been strung along for too long.
How much longer is this going to go on????
They're trying to divide us in any which way that can.
We The People need to rise up TOGETHER.
YES, THAT MEANS EVERYONE. (CDCWhistleblower, 2021a)

In another example, conservative influencer and political pundit, Tomi Lahren, posts: “Unvaccinated, you can get COVID-19 and have over 99% chance of survival. Get vaccinated and you can STILL get COVID-19 and will still have over 99% chance of survival. Vaccinated and they still make you wear a mask on the airplane. COVID-19 hysteria is over, find a new cause” (Lahren, 2021). Finally, some who oppose the vaccine, such as Marjorie Taylor Greene, combine *ad baculum* appeals with hyperbole in an obvious attempt to depict the CDC and the President in atrocious and absurd ways. For example, Greene (2021e) warns, “It's time to pass my #FireFauci Act. Funding the creation of a bioweapon that has killed millions of people and cruel experiments that torture puppies are the things only a monster could do. What else has this psychopath done? Fauci must be fired, investigated, and arrested.” Of course, it is highly unlikely that President Biden will fire Dr. Fauci, but Marjorie Taylor Greene's statement is without

doubt purposefully worded to excite her base of followers and constituents who are, incidentally, in the same echo chamber.

Other themes appear on Facebook, such as allegations that the CDC and the Biden administration articulate their coronavirus positions so that the pharmaceutical industry can profit enormously from manufacturing vaccines (Kennedy, 2021a, 2021b). Marjorie Taylor Green (2021d) simply states, “First they sell the disease, then they sell you the cure,” but those positions are not as prominent as the major themes analyzed here.

IMPLICATIONS

In 2020, Cinelli et al. compared five social media platforms (Twitter, Instagram, YouTube, Reddit and Gab) to ascertain if COVID-19 information was seen as reliable or unreliable across platforms. While similar to our study, Cinelli et al. review the frequency of posts that were coded according to perceived reliability, whereas we examine the content of messages to understand the type of rhetorical tactics employed when users attack the vaccine in various ways. Of course, Cinelli et al. also do not investigate the same rhetorical themes that we do. Nevertheless, we argue that our study adds to this important, on-going conversation about the extensive scope of mis/disinformation dissemination combined with the hazards that accompany the adherence of such messages.

In addition to highlighting the value of textually analyzing the rhetorical content of anti-vaccine messages, we note the necessity of viewing such messages within a particular historical moment so that other cultural forces can perhaps provide additional context into how social media messages are interpreted. By adding the prisms of conjunctural analysis and the theory of spectacle, we are able to see how certain messages reinforce each other, refer to cultural forces for enhanced meaning and persuasive ability, and understand how specific rhetorical tactics can amplify the resonance and perceived legitimacy of messages for some audience groups. While the Cinelli et al. (2020) study claims that message receptivity varies depending on the specific social media platform, our analysis reveals that while separate social media apps may have more issue resonance than others, overall we agree with Greenfield (2017) who argues that social media technologies “never work as stand-alone, isolated, sovereign artifacts. Whatever effect they have on the way we live

our lives comes about precisely because they have been embedded in larger-scale social, technical and physical systems” (p. 299). This means, of course, that there are too many variables that complicate any claims for an absolute, conclusive contention. Instead, we argue that social media messaging and their persuasive potential rely on the convergence of complex forces (Lim, 2020). This does not mean that any investigation will automatically be insufficient, incorrect, or unworthy of pursuit. On the contrary, we feel strongly that by acknowledging this complexity and taking into consideration as many of the most important variables as possible, we can reach a satisfying and significant understanding of how these social media posts function in our current conjuncture.

As a result of this logic, we can see how the world of social media is built and maintained on the individual, isolated operations of singular platforms with their relationship to other digital outlets. This synergistic and multidimensional digital landscape creates what Lim (2020) calls a “communication network.” While the technical infrastructure, in some cases, reinforces individual platforms, the more important connection between them is the affective glue that is generated by using a singular platform. In other words, social media information produces affective responses in users that promote use of other platforms because a user becomes psychologically addicted to the digital world. This complex network of mutually-reinforcing influences among platforms – also known as “platformization” – obviously facilitates the rapid and robust spread of mis/disinformation (Poell et al., 2022).

Although we are unable to observe the actual code for social media algorithms, we can connect how algorithms manipulate data to fit presumed characteristics of users and then spread individualized recommendations to users. This process might be helpful if someone wants to explore other information that is similar to their current interests or preferences. However, much of the suggested material may be irrelevant, or it may entice a user to discover online data that will supplement their network experience. By highlighting the relationship between algorithms and problematic message content, we can observe how social media in general, and algorithms in particular, foster and sustain mis/disinformation. If someone is receiving their news primarily from a social media source – which most of our youth are doing – then we should be conscientious of the process that eases the spread of faulty knowledge. Perhaps even more alarming is

realizing now that some algorithms are weaponized to inflame the discursive divisions occurring in our social media tribes (Delaney, 2021).

Known as “algorithmic enclaves,” groups of users in particular social media platforms may form together, much like an echo chamber (Lim, 2020). The main difference, however, between enclaves and chambers is that algorithmic enclaves are generated by the function of the algorithms, unlike echo chambers that may attract some users as a result of algorithm-like seduction, but they can also form through users’ self-selection. Algorithmic enclaves also perpetually reinforce themselves in sort of an algorithmic feedback loop in an effort to continually motivate current users while also recruiting possible future users through a process of repetition. Since algorithmic enclaves reinforce each other – even across platforms (e.g., a post on Facebook may trigger an algorithmic response on the same user’s Instagram feed) – they offer an ideal way to disseminate problematic message content. In other words, mis/disinformation can be supercharged and then rapidly redirected through the algorithmic network (Lim, 2020).

Considering the growing popularity of social media, including how many citizens are increasingly using social media for news and important information, we need to vigilantly investigate how social media functions and how it impacts our culture (Kim et al., 2019). In particular, given the gravity of a global pandemic, it is imperative that we identify, challenge, and reduce to the best of our ability the influence of mis/disinformation. Of course, lives are at stake, but so too is the future of our society. This is not an exaggeration – unlike the rhetorical tactic often employed by social media users. Former advisor to President Obama, David Axelrod (2022), succinctly warns us that “Disinformation and conspiracy theories, turbocharged and micro-targeted by the new tools social media and big data provide, are a clear and present danger to democracies. They have become weapons with which to foment mistrust in our institutions, sow division and even political violence. But combating them is a complex challenge. We hope over these three days to not only shine a light on the problem but also potential solutions.” Hence, we, like others, believe the trust, legitimacy, and even survival of our democracy is in peril (Bergmann & Kenney, 2017). If our future is at risk, we hope that more people will critically examine their social media use.

Furthermore, we can all take some practical steps to avoid the dangers of mis/disinformation. Of course, we could begin by curtailing our social media use. This may be unrealistic since our youth are growing up in a culture that has become more and more dependent – and addicted – to social media (Andreassen & Pallesen, 2014; Hartney, 2019). With that reality, we can hope that people will modestly reduce their social media intake. In doing so, users can critically question the information they are digesting – they should ask who the original source is, is the source qualified, does the source have conflicts of interest, and do other experts agree with them. This is very similar to the approach originated by Professor Mike Caulfield (2019) known as the SIFT process model – stop, investigate the source, find trusted coverage, and trace to the original. In a related way, we should also diversify our exposure to social media. Instead of confining ourselves to specific echo chambers, we should force ourselves to consume information from sources we do not normally frequent as well as sites that we believe may conflict with our predispositions.

Simply put, all of us need to enhance our digital literacy skills. It is imperative that we take a few moments to double-check the information we use that forms the basis for our voting decisions, our financial decisions, our health care decisions. We must find a little extra time to gather diverse and appropriate information from which we can address important issues. This suggestion may seem intuitive, perhaps even too sophomoric.

But another problem with our social media world is that it shortens our attention spans and reduces our ability to concentrate on anything meaningful during a reasonable amount of time (Microsoft, 2015; Nusca, 2009; Settle, 2018). As such, we may need to force ourselves to remain focused long enough to acquire a reasonably sufficient and diverse amount of information necessary for some of these vital questions. Finally, we must discourage others from posting, re-tweeting, and “liking” the mis/disinformation we can identify on social media. And, as a corollary, we should encourage others to spend a modicum amount of time as they process crucial information. Not only will these suggestions assist people with their individual challenges for the benefit of their own self-interests, but they also implicate the broader community and culture’s interests. Obviously, regarding a global pandemic, we must be cautious how we spread information and how we digest it. Lives are at stake.

References

- Alberta, T. M. (2021, March 23). Instagram. @AlbertaTrutherMama.
- Albright, J. (2017, November 8). Instagram, meme seeding, and the truth about Facebook manipulation. *Medium*. <https://medium.com/berkman-klein-center/instagram-meme-seeding-and-the-truth-about-facebook-manipulation-pt-1-dae4d0b61db5>
- Al-Rawi, A. (2021). Political memes and fake news discourses on Instagram. *Media and Communication*, 9(1), 276-290.
- AM Michaelski (2021, July 16). Instagram. @AMMichaelski.
- Andreassen, C. S., & Pallesen, S. (2014). Social network site addiction—an overview. *Current Pharmaceutical Design*, 20, 4053–4061.
- Anonymous (2021a, June 14). Instagram.
- Anonymous (2021b, August 21). Instagram.
- Anonymous (2021c, May 17). Instagram.
- Anonymous (2021d, October 6). Instagram.
- Axelrod, D. (2022, February 28). Co-hosted with *The Atlantic*, April 6-8 event will include Barack Obama, Nobel Laureate Maria Ressa. University of Chicago News. <https://news.uchicago.edu/story/institute-politics-co-host-conference-disinformation-and-erosion-democracy>
- Bagadiya, J. (2022). 430+ social media statistics you must know in 2022. *SocialPilot*. <https://www.socialpilot.co/blog/social-media-statistics>
- Barnes, N. (2021, October 12). Twitter. @WickBarnes.
- Basch, C. H., Meleo-Erwin, Z., Fera, J., Jaime, C., & Basch, C. E. (2021). A global pandemic in the time of viral memes: COVID-19 vaccine misinformation and disinformation on TikTok. *Human Vaccines & Immunotherapeutics*, 17(8), 2373-2377.
- Batiste, D. (2020). Russia disinformation: Origins of deception. In Samuel Lavoie (Ed.). *Panopoly Journal* (pp. 13-19). https://www.researchgate.net/publication/348097794_Russia_and_Disinformation_Origins_of_Deception
- Baum, A. (2021, August 9). Instagram. @AlyssaBaum.
- Bergmann, M., & Kenney, C. (2017, June 6). War by other means: Russian active measures and the weaponization of information. *American Progress*. <https://www.americanprogress.org/article/warby-other-means/>
- Boebert, L. (2021, July 8). Twitter. @laurenboebert
- Bond, S. (2021, May 14). Just 12 people are behind most vaccine hoaxes on social media, research shows. *NPR*. <https://www.npr.org/2021/05/13/996570855/disinformation-dozen-test-facebooks-twitthers-ability-to-curb-vaccine-hoaxes>
- Bratslavsky, L., Carpenter, N., & Zompetti, J. P. (2020). Twitter, incivility, and presidential communication: A theoretical incursion into spectacle and power. *Cultural Studies*, 34(4), 593-624.
- Braun, K. A., & Loftus, E. (1998). Advertising's misinformation effect. *Applied Cognitive Psychology*, 12(6), 569–591.
- CDCWhistleblower (2021a, August 3). Facebook.
- CDCWhistleblower (2021b, September 7). Facebook.
- CDCWhistleblower (2021c, December 31). Facebook.
- Caulfield, M. (2019, June 19). SIFT (The Four Moves). *Hapgood*. Available,

- <https://hapgood.us/2019/06/19/sift-the-four-moves/>
- Center for Countering Digital Hate (2021a). *The Disinformation Dozen: Why Platforms Must Act on Twelve Leading Online Anti-Vaxxers*. Available, https://www.counterhate.com/files/ugd/f4d9b9_b7cedc0553604720b7137f8663366ee5.pdf
- Center for Countering Digital Hate (2021b). *Malgorithm: How Instagram's Algorithm Publishes Misinformation and Hate to Millions During a Pandemic*. Available, https://www.counterhate.com/files/ugd/f4d9b9_89ed644926aa4477a442b55afbeac00e.pdf
- Chewning, K. C. (2021, June 28). Instagram. @KellieChristineChewning.
- Chu, C. L., & Sanyal, R. (2015). Editorial: Spectacular cities of our time. *Geoforum*, 65, 399-402.
- Cinelli, M., Quattrocioni, W., Galeazzi, A., Valensise, C. M., Brugnoti, E., Schmidt, A. L., Zola, P., Zollo, F., & Scala, A. (2020). The COVID-19 social media infodemic. *Nature Scientific Reports*, 10. Available, <https://www.nature.com/articles/s41598-020-73510-5.pdf>
- Cinelli, M., Morales, G. D. F., Galeazzi, A., & Starnini, M. (2021, February 23). The echo chamber effect on social media. *PNAS*. PNAS. Retrieved November 24, 2022, from <https://www.pnas.org/doi/10.1073/pnas.2023301118>
- Cocchiarella, C. (2021, November 30). Manipulative algorithms and addictive design: Summing up what's wrong with social media. *Mindful Technics*. Retrieved February 13, 2022, from <https://mindfultechnics.com/manipulative-algorithms-and-addictive-design-summing-up-whats-wrong-with-socialmedia/#:~:text=By%20monitoring%20people's%20online%20behavior,through%20endless%20ads%20and%20content.>
- Cockes, T. (2021, September 6). Georgia pastor embraces 'faith over fear' after COVID-19 battle. *Kentucky Today*. Available, https://www.kentuckytoday.com/baptist-life/georgia-pastor-embraces-faith-over-fear-after-COVID-19-battle/article_80c7437a-a85d-5d27-9625-e833d066596e.html
- Conley, T. M. (1984). The enthymeme in perspective. *Quarterly Journal of Speech*, 70, 168-187.
- Culliford, E. (2021, July 13). TikTok sounds used to spread COVID-19 vaccine misinformation. *Reuters*. Available, <https://www.reuters.com/business/healthcare-pharmaceuticals/tiktok-sounds-used-spread-COVID-19-vaccine-misinformation-think-tank-2021-07-13/>
- D (2022, January 30). Twitter. @DiSellin.
- The Daily Wire* (2021, November 4). Facebook.
- The Daily Wire* (2022, January 20). Facebook.
- Debord, G. (2002). *Society of the spectacle*. Canberra: Hobgoblin Press.
- Delaney, K. (2021). *The plight of social media: An analysis of the effects social media has on political discourse*. Department of Political Science Honors Thesis, Union College. Available, <https://digitalworks.union.edu/theses/2454/>
- Denghua, Y., & Lidan, G. (2020). Para-social interaction in social media and its marketing effectiveness. *Foreign Economics & Management*, 42(7), 21-35.
- Devdariani, J., & Adzinbaia, Z. (2019). *Responding to Russian disinformation: A*

- case of Georgia*. Available, <http://ewmi-access.org/wp-content/uploads/2019/11/Responding-to-Russian-Disinformation-A-Case-of-Georgia-FINAL-English-13.11.2019.pdf>
- Dickson, E. J. (2020, May 13). On TikTok, COVID-19-19 conspiracy theories flourish amid viral dances. *Rolling Stone*. Available, <https://www.rollingstone.com/culture/culture-features/tiktok-conspiracy-theories-bill-gates-microchip-vaccine-996394/>
- Dimock, M., & Wike, R. (2021, March 29). America is exceptional in its political divide. *Pew Trust Magazine*. Available, <https://www.pewtrusts.org/en/trust/archive/winter-2021/america-is-exceptional-in-its-political-divide>
- Edwards, A. (2013). (How) do participants in online discussion forums create ‘echo chambers’?: The inclusion and exclusion of dissenting voices in an online forum about climate change. *Journal of Argumentation in Context*, 2(1), 127–150.
- Faith Food Freedom (2021a, August 3). Instagram. @faithfoodfreedom.
- Faith Food Freedom (2021b, August 17). Instagram. @faithfoodfreedom.
- Faith Food Freedom (2021c, May 18). Instagram. @faithfoodfreedom.
- Edsall, T. B. (2022, January 26). America has split, and it’s now in very dangerous territory. *The New York Times*. Available, <https://www.nytimes.com/2022/01/26/opinion/COVID-19-biden-trump-polarization.html>
- Garimella, K., De Francisci Morales, G., Gionis, A., & Mathioudakis, M. (2018). Political discourse on social media: Echo chambers, gatekeepers, and the price of bipartisanship. *Proceedings of the 2018 World Wide Web Conference*, 913-922. Available, <https://dl.acm.org/doi/abs/10.1145/3178876.3186139>
- Garrett, R. K. (2009). Echo chambers online?: Politically motivated selective exposure among internet news users. *Journal of Computer-Mediated Communication*, 14(2), 265–285.
- Golino, M. A. (2021, April 24). Algorithms in social media platforms. *Institute for Internet and the Just Society*. Retrieved November 24, 2022, from <https://www.internetjustsociety.org/algorithms-in-social-media-platforms>
- Greene, M. T. (2021a, September 9). Facebook.
- Greene, M. T. (2021b, September 18). Facebook.
- Greene, M. T. (2021c, July 25). Facebook.
- Greene, M. T. (2021d, October 4). Facebook.
- Greene, M. T. (2021e, October 24). Facebook.
- Greene, M. T. (2021f, November 20). Facebook.
- Greene, M. T. (2021g, December 10). Facebook.
- Greenfield, A. (2017). *Radical technologies: The design of everyday life*. London: Verso.
- Grierson, J., Milmo, D., & Farah, H. (2021, October 8). Revealed: Anti-vaccine TikTok videos being viewed by children as young as nine. *The Guardian*. Available, <https://www.theguardian.com/technology/2021/oct/08/revealed-anti-vaccine-tiktok-videos-viewed-children-as-young-as-nine-COVID-19>
- Grimes, D. R. (2020). Health disinformation & social media. *EMBO Reports*, 21(11), 1-4. Available, <https://www.embopress.org/doi/full/10.15252/embr.202051819>
- Grossberg, L. (2018). *Under the cover of chaos: Trump and the battle for the American right*. Pluto Press.
- Guadagno, R. E., & Guttieri, K. (2020). Fake news and information warfare: An

- examination of the political and psychological processes from the digital sphere to the real world. In Information Resources Management Association (Ed.), *Research anthology on fake news, political warfare, and combatting the spread of misinformation* (pp. 218-242). Hershey, PA: IGI Global.
- Hamilton, I. A. (2020, December 4). Social media superspreaders: Why Instagram, not Facebook, will be the real battleground for COVID-19 vaccine misinformation. *Business Insider*. Available, <https://www.businessinsider.com/instagram-vaccine-misinformation-facebook-antivaxx-COVID-19-19-2020-12>
- Harmon-Jones, E., & Mills, J. (2019). An introduction to cognitive dissonance theory and an overview of current perspectives on the theory. In E. Harmon-Jones (Ed.), *Cognitive dissonance: Reexamining a pivotal theory in psychology* (pp. 3–24). American Psychological Association.
- Hannity, S. (2022, January 5). Facebook.
- Harris, D. J. (2021, March 11). Facebook. Available, <https://www.facebook.com/DavidJHarrisJr/videos/850907412139008/>
- Hartney, E. (2019). How to know if you have an internet addiction and what to do about it. *Very Well Mind*. <https://www.verywellmind.com/internet-addiction-4157289>.
- Hassan, M. R., Rahim, S. S. S. A., & Jeffree, M. S. (2021). Pandemic fatigue: A challenge in combatting against COVID-19. *Borneo Epidemiology Journal*, 2(1). Available, <https://jurcon.ums.edu.my/ojums/index.php/bej/article/view/3232>
- Hatton, J. (2022, February 16). Twitter. @thejoliesfleurs.
- Highfield, T., & Leaver, T. (2016). Instagrammatics and digital methods: Studying visual social media, from selfies and GIFs to memes and emoji. *Communication Research and Practice*, 2(1), 47-62.
- Holmes, R. (2016, December 8). The problem isn't fake news, it's bad algorithms – here's why. *The Observer*. Available, <https://observer.com/2016/12/the-problem-isnt-fake-news-its-bad-algorithms-heres-why/>
- I Trust the Science (2021, August 9). Instagram. @ITrustTheScience.
- Jackson, J. (2020, November 24). What's behind Russia's disinformation campaign in Georgia. *DW*. Available, <https://www.dw.com/en/whats-behind-russias-disinformation-campaign-in-georgia/a-55708502>
- Kate (2021, May 15). Instagram.
- Kennedy, R. F., Jr. (2021a, May 12). Facebook.
- Kennedy, R. F., Jr. (2021b, May 25). Facebook.
- Kim, Y. M., Heinrich, R. J., Kim, S. Y., & Baragwanath, R. (2019). Campaigns go social: Are Facebook, Snapchat, and Twitter changing elections? In Travis N. Ridout (Ed.), *New directions in media and politics* (pp. 122-142). New York: Routledge.
- Klacik, K. (2022, January 22). Facebook. Available, <https://www.facebook.com/KimberlyNKlacik/posts/461517778936677>
- Kornbluh, K. (2022, February 8). Disinformation, radicalization, and algorithmic amplification: What steps can congress take? *Just Security*. Retrieved March 14, 2022, from <https://www.justsecurity.org/79995/disinformation-radicalization-and-algorithmic-amplification-what-steps-can-congress-take/>
- Lahren, T. (2021, July 18). Facebook. Available,

<https://www.facebook.com/photo.php?fbid=359439972211165&set=a.278260926995737&type=3&theater>

- Lim, M. (2020). Algorithmic enclaves: Affective politics and algorithms in the neoliberal social media landscape. In M. Boler & E. Davis (Eds.), *Affective politics of digital media: Propaganda by other means* (pp. 186-203). New York: Routledge.
- Loomba, S., de Figueirido, A., Piatek, S. J., de Graaf, K., & Larson, H. J. (2021). Measuring the impact of COVID-19 vaccine misinformation on vaccination intent in the UK and USA. *Nature Human Behaviour*, 5, 337-348. Available, <https://www.nature.com/articles/s41562-021-01056-1.pdf>
- McGee, M. C. (1980). The "Ideograph": A link between rhetoric and ideology. *The Quarterly Journal of Speech*, 66(1), 1-16.
- McGuinness, P. (2022, January 1). Facebook.
- Mena, P., Barbe, D., & Chan-Olmsted, S. (2020). Misinformation on Instagram: The impact of trusted endorsements on message credibility. *Social Media + Society*, 6(2), 1-9.
- Menczer, F. (2021, September 20). Facebook's algorithms fueled massive foreign propaganda campaigns during the 2020 election – here's how algorithms can manipulate you. *The Conversation*. Retrieved March 14, 2022, from <https://theconversation.com/facebooks-algorithms-fueled-massive-foreign-propagandacampaigns-during-the-2020-election-heres-how-algorithms-can-manipulate-you-168229>
- Metzger, M. J., & Flanagin, A. J. (2013). Credibility and trust of information online environments: The use of cognitive heuristics. *Journal of Pragmatics*, 59(B), 210-220.
- Michigan Republican Party (2022, February 4). Facebook.
- Microsoft (2015). Attention spans. <https://sherpapag.com/wpcontent/uploads/2017/12/MAS.pdf>
- Mirani, L. (2020, June 29). No more going viral: Why not apply social distancing to social media? *The Guardian*. Available, <https://www.theguardian.com/commentisfree/2020/jun/29/social-distancing-social-media-facebook-misinformation>
- Nimmo, B. (2015, May 19). Anatomy of an info-war: How Russia's propaganda machine works, and how to counter it. *StopFake*. Available, <https://www.stopfake.org/en/anatomy-of-an-info-war-how-russia-s-propaganda-machine-works-and-how-to-counter-it/>
- Nusca, A. (2009, February 23). Will Facebook 'infantilize' the human mind? ZDnet blog. <https://www.zdnet.com/article/will-facebook-infantilize-the-human-mind/>
- O'Brien, C. (2022, January 19). How do social media algorithms work? *Digital Marketing Institute*. Retrieved February 14, 2022, from <https://digitalmarketinginstitute.com/blog/how-do-social-media-algorithms-work>
- Pariser, E. (2011). *The filter bubble: How the new personalized web is changing what we read and how we think*. New York: Penguin.
- Pedro, L. (2022, February 25). Twitter. @composureLP.
- Perez, S. (2018, October 30). Twitter's doubling of character count from 140 to 280

- had little impact on length of tweets. *Tech Crunch*. Available, <https://techcrunch.com/2018/10/30/twitters-doubling-of-character-count-from-140-to-280-had-little-impact-on-length-of-tweets/>
- Petrescu, M., & Krishen, A. S. (2020). The dilemma of social media algorithms and analytics. *Journal of Marketing Analytics*, 8, 187-188.
- Poell, T., Nieborg, D., & Duffy, B. E. (Eds.) (2022). *Platforms and cultural production*. Cambridge, UK: Polity Press.
- Prior, M. (2013). Media and political polarization. *Annual Review of Political Science*, 16, 101–127.
- Provenzano, B. (2021, August 18). TikTok’s algorithm is speeding up the spread of COVID-19 vaccine lies. *Gizmodo*. Available, <https://gizmodo.com/tiktoks-algorithm-is-speeding-up-the-spread-of-COVID-19-1847512268>
- Quattrocio, W., Scala, A., & Sunstein, C. R. (2016). Echo chambers on Facebook. *The Harvard John M. Olin Discussion Paper Series*. Available, http://www.law.harvard.edu/programs/olin_center/papers/pdf/Sunstein_877.pdf
- Racer1X (2021, October 5). Twitter. @RacerX23011493.
- Rajejan (2021, August 25). Twitter. @Rajejanmachine.
- Roeder, L. (2021, July 23). Should you actually tweet 280 characters at a time? *Meet Edgar*. Available, <https://meetegar.com/blog/should-you-actually-tweet-280-characters-at-a-time/>
- Rogan, J. (2020, October 28). Instagram. Available, <https://www.instagram.com/p/CG54ZTvAdQC/?hl=en>
- Savitz, E. J. (2021, October 8). Which social-media networks do teens like the most? Not Facebook and Twitter. *Barron’s*. Available, <https://www.barrons.com/articles/teens-facebook-instagram-tiktok-snapchat-51633736150>
- Schrader, M. (2021, July 16). Schrader: Rep. Lauren Bomber’s anti-vaccine tweets are hurting an already struggling community. *The Denver Post*. Available, <https://www.denverpost.com/2021/07/16/lauren-boebert-anti-vaccine-tweets-colorado-COVID-19-19/>
- Sehl, K. (2020, May 28). Top Twitter demographics that matter to social media marketers. *Hootsuite*. Available, <https://blog.hootsuite.com/twitter-demographics/>
- Settle, J. E. (2018). *Frenemies: How social media polarizes America*. Cambridge, UK: Cambridge University Press.
- Statista (2022, March 8). Most popular social networks worldwide as of January 22, ranked by number of monthly active users. *Statista*. Available, <https://www.statista.com/statistics/272014/global-social-networks-ranked-by-number-of-users/>
- Thatcher, J., & Dalton, C. M. (2017). Data derives: Confronting digital geographic information as spectacle. In Marco Briziarelli & Emiliana Armano (Eds.), *The spectacle 2.0: Reading Debord in the context of digital capitalism* (pp. 135-150). London: University of Westminster Press.
- Three Equals Five (2022, February 12). Twitter. @ThreeEqualsFive.
- Tiffany, K. (2019, March 22). Why Instagram’s anti-vaccine problem isn’t surprising. *Vox*. Available, <https://www.vox.com/the-goods/2019/3/22/18277429/instagram-anti-vaccine-hashtag-ban-facebook-wellness>

- United We Stand (2021, December 27). Instagram. @UnitedWeStand.
- United We Stand (2022, January 9). Instagram. @UnitedWeStand.
- van Eemeren, F. H., Garssen, B., & Meuffels, B. (2012). The disguised abusive ad hominem empirically investigated: Strategic manoeuvring with direct personal attacks. *Thinking & Reasoning*, 18(3), 344-364.
- Voices21 (2022, January 1). Instagram. @Voices21.
- Walker, S., Mercea, D., & Marco, B. (2019). The disinformation landscape and the lockdown of social platforms. *Information Communication and Society*, September. <https://www.researchgate.net/publication/335487188>
- Whale (2020, October 16). Instagram. @TheWhale.
- The Woke Room (2021a, May 22). Instagram. @TheWokeRoom.
- The Woke Room (2021b, June 3). Instagram. @TheWokeRoom.
- Woods, John (1998). Argumentum ad Baculum. *Argumentation*, 12, 493-504.
- Worldometers (2022, April 17). COVID-19 Coronavirus pandemic. Available, <https://www.worldometers.info/coronavirus/>
- Zompetti, J. P. (2018). *Divisive discourse: The extreme rhetoric of contemporary American politics* (2nd ed.). San Francisco: Cognella.

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