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COVID conspiracy narratives: Dissecting the origins of misinformation in digital space

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Abstract

The COVID-19 pandemic has highlighted the role of digital spaces in the dissemination of health information. These online spaces present legitimate dangers for the future of global health, as they perpetuate COVID-19 conspiracies and promote the rejection of health authority. This thesis asks how digital social spaces allow for the spread of COVID-19 misinformation. Through a discourse analysis of conspiracy narrative news coverage, I study the development of three COVID-19 conspiratorial narratives: the Wuhan Lab theory, the *Plandemic* theory, and the 5G-Coronavirus theory. I aim to understand how these discourses took advantage of the unique character of digital social spaces to contradict reputable health authorities. The results of my analysis indicate that COVID narratives are built on reproduced conspiracy motifs, xenophobia, and medical populist rhetoric. They use traditional methods in journalistic epistemology and victimization plots to establish their knowledge claims as credible. Additionally, the circulation of misinformation in digital space is the result of conspiracy networks and AI algorithms. The conclusions drawn from this research indicate that mainstream media and knowledge producers need to change their methods of disputing conspiracy knowledge claims.

Keywords: COVID-19; misinformation; digital space

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1. Introduction

In March of 2020, Sars-Cov-2 was a burgeoning spectacle. Grocery store shelves were left barren after panicked attempts at storing supplies. The CDC dispersed new information each day, sharing sparse factoids that often left the public more unnerved than informed. Residents of digital spaces turned to crowdsourced information to try and piece together what was occurring, leading to a barrage of bad advice and snake oil cures (Stephens, 2020). Popular digital networks like Facebook, Twitter, and YouTube turned into misinformation hotspots (Bridgman et al., 2020). These hotspots were breeding grounds for complicated COVID-19 conspiracies, many of which discouraged social distancing and CDC-approved health behaviors. These conspiracy narratives grew in popularity in both conservative right-wing circles and left-leaning new age groups, garnering frustration from mainstream authorities. In the early days of the pandemic, it was easy for mainstream institutions to dismiss conspiracies as aimless, fake stories made up by "crazy people". But a storm was brewing online, one that threatened to spill over into the real world while the CDC was distracted by rising death rates.

One year later, the effects of believing in COVID-19 conspiracies have manifested physically in the United States and around the world. A pharmacist in a Milwaukee suburb was arrested for ruining 570 vials of Moderna's COVID-19 vaccine, as he believed they would change a vaccinated individual's DNA (Dewan & Nolan, 2021). In the UK and around Europe, cellular towers have been burned to the ground in fear of 5G radiation (Kelion, 2020). Known conspiracist

and QAnon believer, Marjorie Taylor Greene, is now an elected representative in the House; within her first few months in office she has promoted QAnon misinformation, refused to wear a mask around other representatives, and called for the deaths of other elected officials (Elliot, 2021). And, as pharmaceutical companies race to develop and distribute vaccines internationally, the continued presence of vaccine skepticism threatens the hope of achieving herd immunity within the next year (Sanchez & Peña, 2021). All the while, the virus continued to infect and kill. 369,453 American citizens died from COVID-19 in 2020 (CDC, 2021). How did these narratives spread so quickly across the country, and grow to the point where they had real, tangible effects on society?

This research seeks to understand how conspiracy stories are reproduced and circulated in digital social spaces, and how they assert epistemic authority over dominant health narratives. The focus on conspiracies allows me to study the replication of misinformation in social spaces, as well as analyze the prominence of medical populism in misinformation narratives. I will examine the discourse of and surrounding three COVID-19 conspiracy narratives using Foucauldian discourse analysis. The analysis follows three core research questions: *how does the infrastructure of digital space promote the spread of health misinformation, what are the recurring components of conspiracy narratives, and why does these components appeal to anti-health authority social spaces,* and *how do conspiracies establish epistemic authority over the dominant disease narratives?* Using the mainstream media's documentation of conspiracy narratives, I track the circulation of the narratives across social media and mainstream news platforms. I

argue that while the infrastructure of social media networks makes it easier for narratives to circulate, story reproduction in mainstream media spaces increases the story's epistemic credit. The narratives utilize emotional appeals, high-quality production, and other epistemological techniques to convince the public that they are "true". I conclude that preventing the spread of online misinformation requires a shift in engagement with the narratives, as the traditional forms of disproving misinformation have been adapted into "evidence" within a conspiracy.

Theoretical Frameworks

The subject of this research is complicated, as it applies geographic and media theory to conspiracy narratives, a concept that is normally treated as non-academic by mainstream authorities. In order to perform this analysis, I built my discourse analysis on
a mix of concepts from literature in geography and media studies. This framework combines concepts in digital geography, Carlson's components of circulation, and epistemology, as well as Russian formalist literary theory. In this section, I will briefly address the origins of this research's framework, which will be expanded upon in the literature review. Following this, I will outline the methods and justification for this project.

I am using James Ash's three categories of digital space to contextualize this research in the field of geography. "Digital space" is space constructed by new media, technology, and the internet (Ash et al., 2016). It exists under the umbrella of "mediated geography", or geographies that are aided by or produced

through forms of media; this includes media and communication geographies such as literary geography or the geography of cinema (Adams, 2016). In order to differentiate the "digital" from the larger field of "mediated", I'm adapting James Ash's categories of digital space. These categories of space provide guidelines to help understand what is and is not "digital geography". The spaces are defined as geography *through* the digital, geography *produced* by the digital, and geography *of* the digital. The concepts set up spatial guidelines for digital infrastructures. Setting up this conceptual space framework allows me to isolate the "where" my research is occurring and opens up room to engage with media theory; in this research, I will be exploring the notion of geography *of* the digital, or the spaces constructed in social media.

The primary media studies frameworks that I will be adopting come from the field of critical journalism studies. These frameworks will help me analyze how conspiracies become epistemic beliefs for conspiracists. The first concept comes from Matthew Carlson's research on epistemology and digital news circulation (Carlson, 2020). This article addresses how components of online news circulation establish a piece of information as "fact". It offers a conceptual framework for understanding how an idea interacts with digital infrastructures and becomes information. I am also drawing from the field of epistemology, or the study of knowledge production and justification (Ekström & Westlund, 2019). Epistemology is concerned with how neutrality, objectivity, and fact-checking interact with knowledge production. Specifically, I am drawing from journalistic epistemology to understand how media spaces traditionally produce knowledge

narratives (Godler et al., 2020). This framework links concepts of digital geography with the components of circulation, as it is shaped by digital infrastructures and studies how specific circulation practices contribute to the acceptance or rejection of news information (Miller & Record, 2017.)

Finally, my thesis draws on Russian formalist theory—particularly the writings of Victor Shklovsky and Vladimir Propp—for its discussion and comprehension of "narrative". "Narrative", as it is defined in this research, is a sequence of events that reveals a "truth of affairs" (Shklovsky, 1966/1990, p. 56). The words "narrative" and "story" will be used interchangeably. Formalist theory is interested in the elements of a narrative that contribute to its truth, such as setting or character (Louchart & Aylett, 2004). It argues that every story exists in relation to others and follows predictable events and motifs. Utilizing this concept of "narrative", I aim to identify the repeated story components that are common in conspiracies, and analyze how they interact with epistemology to create "true" conspiracy narratives.

Methods and Broader Impacts

In order to identify the common narrative components across the conspiracies, this research will focus on a discourse analysis of documents from American media spaces. While the conspiracies in this research first circulated on social media platforms, many original texts were removed after the mass implementation of misinformation policies. News articles, on the other hand, provide documentation of the narrative's history, as well as play a role within the

stories themselves. All documents were published between January and October of 2020, providing a comprehensive exploration into the proliferation of conspiracies. Because of this time frame, this research will not address the vaccine hesitancy movement that occurred later in the pandemic.

The analysis of these documents will be guided by three research questions. The first asks, *how does the infrastructure of digital space promote the spread of health misinformation?* This question draws from Carlson's circulation components as well as concepts in digital space. It helps identify the digital spaces that are vulnerable to misinformation and understand how attempts at blocking conspiracies redirect the narratives into more inaccessible spaces. The second question asks, *what are the recurring components of conspiracy narratives, and why do these components appeal to anti-health authority social spaces?* This question is also grounded in Carlson's circulation components, as well as narrative theory. This will guide the discussion and provide insight as to why conspiracies are becoming harder to combat in mainstream spaces. The final question is, *how do conspiracies establish epistemic authority over the dominant disease narratives?* It draws from the field of epistemology to identify the knowledge claims used to reject mainstream public health information. Understanding the epistemic claims will help identify potential counter-claims to incorporate into public health narratives. This combination of questions should produce an analysis and discussion that focus on the common components of conspiracy narrative construction.

The conclusions in this thesis provide important insight for combating the spread of medical populism, a political discourse that pits "the people" against public health establishments, and promotes dangerous health practices (Lasco, 2020). Medical populists diminish the risk of a health crisis, encouraging their followers to continue living a life with caution. Former U.S President Trump and Brazilian President Jair Bolsonaro both used this rhetoric to dismiss COVID-19 and delay government safety precautions, while also promoting hydroxychloroquine as a "miracle cure" (Fox, 2020). They also adopted conspiracy narratives into their rhetoric, with Trump promoting the idea that COVID was man-made, and Bolsonaro arguing that the virus was a hoax made by the media (Lasco, 2020, p. 1420). The overlap in conspiratorial and populist rhetoric is cause for concern, especially when it's being adopted by government authorities with the power to interfere with health protocols. The analysis drawn from this thesis will contribute to potential methods of combating this discourse in personal and political spaces.

The rest of the paper will be organized as follows. Following this introduction is a more informed discussion about COVID-19 and misinformation, focusing on the virus's history and some of the political decisions that were informed by conspiracy narratives. Then, I will situate my research in the larger academic literature of geography and media studies, expanding upon the ideas presented in my theoretical framework. After this is the methodology and the results, where I address my findings as responses to my initial research questions.

The discussion returns to the idea of "narrative" as it outlines how conspiracies use digital spaces and epistemology to develop their stories. Finally, my conclusion will present alternatives for addressing conspiracy discourses in populist rhetoric.

2. Background

The COVID-19 Pandemic

Coronavirus disease 2019 (COVID-19, commonly referred to as COVID or coronavirus) is a highly transmissible disease spread through inhalation of the virus through droplets in the air (Forati & Ghose, 2020). It is a respiratory virus related to Severe Acute Respiratory Syndrome (SARS) and Middle East Respiratory Syndrome (MERS), which are both coronaviruses. COVID-19 was first documented in December of 2019, when health officials identified a cluster of cases in Wuhan, China (Patel & Jernigan, 2020). The virus has a wide array of symptoms, the most common being a dry cough, a fever, and the loss of the sense of smell (CDC, 2020). Symptoms can appear anywhere between 2 and 14 days after exposure; those infected are contagious for up to 10 days after their first sign of symptoms. Reinfection with COVID-19 is uncommon within the first 90 days of developing symptoms. COVID-19 is particularly dangerous for those who have underlying health conditions, those who are immunocompromised, and the elderly. For periods of time when the COVID-19 vaccine is unavailable, health officials encouraged social distancing and isolation as the primary way to contain and combat the virus (Forati & Ghose, 2020). Members of the public were asked to wear face masks to decrease the chance of spreading COVID-19 particles.

The first case of COVID-19 in the United States was identified in Washington in late January of 2020 (Forati & Ghose, 2020). It spread rapidly across the country, striking densely populated cities the hardest. California, New York, and Florida became virus epicenters, either due to a general lack of PPE and

medical supplies, or political officials who disregarded the outbreak. Both factors are the result of the US government's mishandling of the COVID-19 pandemic, which has drawn international outrage and is credited as one of the main reasons the United States has the highest COVID-19 mortality rate in the world. Former President Donald Trump chose to focus on banning travel to infected countries instead of implementing early, nationwide lockdowns that had proven effective in other countries (Yong, 2020). The president chose to leave preventative measures to state officials, an action that resulted in some governors mandating lockdowns and others hosting massive public events (Alvarez, 2020).

COVID-19 and Misinformation

COVID-19 misinformation is an international issue. During the first few months of the pandemic, false information about COVID-19 treatment spread across the internet, resulting in fraudulent miracle cures, injuries, and in rare cases, death. An Arizona man died after consuming an aquarium cleaning product containing what he thought was the drug chloroquine, a product that was falsely declared a cure for coronavirus (Shepherd, 2020). Worldwide, anti-lockdown protests have taken place in Europe, North America, and parts of the Middle East (Haddad, 2021). The massive gatherings usually violate a number of COVID-19 safety protocols and lead to an increase in cases weeks later.

The direct link between misinformation and COVID-19 has been studied and identified by geographers using spatial analysis of geo-tagged tweets and COVID-19 rates (Forati & Ghose, 2020). Regions where COVID-19

misinformation was more common also reported higher rates of COVID-19 infections and deaths. In the US, part of this rampant misinformation spreading is attributed to the beliefs of several Republican politicians, some of whom refused to implement lockdowns in the face of the pandemic. Health officials have tried to emphasize the importance of health behaviors that would contain the virus, but were shut down by former President Trump and members of his administration. Now, as vaccine distribution stars across the country, health experts must grapple with the lasting effects of COVID-19 conspiracies on herd immunity and compliance with positive health behaviors.

3. Literature Review

The literature review joins together research in geography, media studies, and critical public health to develop the relationship between misinformation circulation, digital spaces, and public health. In order to ground this work in geography, this review begins with a detailed discussion of digital social spaces. This leads into three separate but interrelated sections about the epistemology of news, media fragmentation, and circulation practices. The final sections address misinformation circulation and narrative construction.

The texts reviewed come from the fields of geography and media studies, with selections from research in critical public health to inform the section on pandemic discourses. The review covers research published in the late 1990s through 2020, as well as select older theoretical pieces that were written by Michel Foucault and Edward Said (Foucault, 2010, originally published in 1976; Said, 2010, originally published in 1978). Some of the most notable scholars covered in this review are Paul Adams, James Ash, Rob Kitchin, Angela Leszczynski, Shawn Smallman, and Matthew Carlson (See Adams, 2016; Ash et al., 2016; Smallman, 2018; Carlson, 2020).

Digital Social Spaces

The introduction of the internet has produced a shift in how geographers understand space and place. Digital technologies changed how geographers gather, analyze, and display spatial data. The introduction of digital space as a realm of communication adds a new dimension to how humans encounter and

exist in social spaces through channels like Twitter and Facebook. These online social environments are the focus of my thesis research, particularly in terms of how information spreads through the new forms of participatory geographies.

In order to study the human processes of digital space, the concept of "space" must be examined and redefined. Space and place as they exist in the physical world are tangible, to a theoretical extent. "Space" is defined by the movement of bodies, communication, and information; it can be physical and conceptual. All spaces operate with the same social processes (Graham, 1998). So as human production evolves and adapts to the growing realm of media and digital technology, space—and place—does as well. Space has evolved with material productions for centuries. Artificial environments now allow for human-to-human interaction over digital channels of communication (Adams & Jansson, 2012). This human-to-human is mediated by machine interfaces, which we interact with on a daily basis through digital technology. These relationships should lead to the new conceptions of "space" and "place" that exist in between physical locations and communication infrastructures.

To understand these spaces, I am turning to James Ash's three types of digital geographies as a conceptual foundation of digital space. These spaces are geography *through* the digital, geography *produced by* the digital, and the geography *of* the digital (Ash et al., 2016). This typology was constructed through a review of the available digital geography literature and will help legitimize the role of digital spaces in geographic research.

Geographies *through* digital space refer to the production of knowledge and the presentation of spatial data through digital software (Ash et al., 2016, p. 3). GIS and remote sensing are two tools used by geographers that help create visual representations of spatial data. Maps are a technology used to legitimize geographic research. This type of knowledge generation also includes the technologies used to collect and interpret qualitative data; interviews must be recorded, stored on a drive, and analyzed through transcription services. All of these tools contribute to geographic knowledge production.

Geographies *produced by* the digital are grounded in the relationship between "space" and the built environment. Digital media augments the production of physical space and urban development. Cities use digital systems for planning projects and communicating with constituents (Ash et al., 2016, p. 6). Coding software helps mediate city functions. Cities known as "smart cities" use digital space to provide services like managing bike-share programs and tracking buses. Through technology, physical landscapes are changed, mapped, and reinterpreted online. This also applies to constructions of spaces and places that are viewed through a digital platform; products like OpenStreetMap allow users to contribute data and produce collaborative maps of real-world locations (Ash et al., 2016, p. 8). Users can experience a "place" without physically visiting it, producing a new understanding of that location based on the images and information available online.

Geographies *of* the digital conceptualizes mediated networks as a type of geographic space (Ash et al., 2016, p. 8). This includes spaces based on

interpersonal interaction, such as social media platforms, forums, and online video games. Geographies *of* the digital are built by shared experiences and mediated conversations. People don't have to rely on physical proximity to connect with others; through mediated spaces, you can see, hear, and engage with others all over the world. Social media platforms like Instagram and Facebook are digital spaces; users can select whose content they receive and who is able to see what the user posts (Suh, 2020). These spaces are particularly important as they are *participatory geographies*, or spaces shaped by social engagement and public information distribution (Malecki, 2016, p. 9). In social media spaces, users can build their networks based on the people and information they agree with (Elwood & Leszczynski, 2013). The key aspect of these geographies is that users are able to share knowledge with others, regardless of whether or not the information is true. Because of this, these spaces are more vulnerable to the spread of misinformation than others.

The development of participatory knowledge production in digital spaces has changed how ideas become socially accepted "information". The infrastructure of digital spaces blurs the line between personal social spaces and academic spaces; platforms like public-facing blogs allow academics to distribute their findings in easily accessible posts (Kitchin et al., 2013).This combination of sources has led to a blurring between the notions of "truth" and fiction"; digital spaces can be crafted to accept information narratives that confirm their personal beliefs and reject those that don't fit that picture. The next section will explore

this relationship as it pertains to news information and epistemic authorities.

Epistemic Authority in News Production

The changes in participatory geography and knowledge production are tied to questions of epistemology. Epistemology is the study of how we know what we know. This research is founded in journalistic epistemology, which is understood as the rules and routines that decide how the news is produced and expressed as knowledge (Carlson, 2020). In news production, there are certain practices that construct and verify knowledge. Defining these practices will be important for analyzing how conspiracy narratives become accepted as "information" in digital spaces.

Information production in journalism is built on specific practices and the institutional role of news media. In journalism, the primary method is the verifiable testimony; this is either accomplished through an interview with an eye-witness or an expert of the topic (Usher, 2020). Photos, graphs, and other data visualizations are used to provide a visual for the audience; they can either provide supporting data about the history of a subject, or provide readers with an image confirming that an event happened (Ekström & Westlund, 2019). These methods produce verifiable "evidence" to support the knowledge claim. However, part of journalistic epistemology is the historical trust of journalists as epistemic authorities. They are perceived as credible so long as they continue to be transparent in knowledge communication (Elwood & Leszczynski, 2013). Traditional news media institutions are built on ethical codes and the commitment

to unbiased truth (Ekström & Westlund, 2019). Audiences *should* trust reporters based on the institutional role the media plays in producing credible information.

While news discourses frame journalists as news authorities, there's a growing gap in trust between American journalists and their audiences. With the digital turn in news production, there has been a shift in how consumers accept the media as an epistemic authority. Part of this is due to the fragmentation of mainstream media.

News Media Fragmentation

The digital turn in media production has changed how news media is developed and circulated. This section is concerned with the evolution and eventual fragmentation of news media, which includes physical and digital newspapers, television programs, and alternative blogs and YouTube shows (Mancini, 2013). This wide variety of platforms has assisted the rapid politicization of news information, and subsequently, the spread of conflicting "news" narratives.

Digital spaces have changed the way news media produces and spreads knowledge. At its inception, the internet was a "disruptive technology"; it made reporting an instantaneous process and allowed for audiences to receive news digitally (Ahlers, 2006). Organizations shifted online to reduce the cost of producing physical copies of their papers, at the risk of reducing the revenue reporters received. In fear of losing their positions as papers shrunk their staff, reporters had to develop new skills like copy-editing and photography to stay

competitive (Kammer, 2013, p. 151). Journalists also had to start interacting with digital audiences in order to stay relevant. There was a wall between reporters and their readers, many of whom were now used to the easy access of social media (Skoler, 2010).

Social media platforms are public and private networks that allow users to connect with friends, family, and strangers around the world. They provide users with quick snippets of information from the accounts of journalists or online papers (Dubois & Blank, 2018). The rapid ability to post on an aggregated tag makes it easy to access international news and updates about social movements (Messing & Westwood, 2012). Additionally, users can select what topics they want to follow and which individuals they want to hear from (Lasora et al., 2012). Users will only see things that interest them, limiting the news information that they absorb. This is known as selective exposure theory, or the sometimes unintentional decision to limit media engagement to specific sources. The literature on selective exposure theory dates back to news consumption in the 1950s (Iyngar, 2009). It's a two-way process: consumers return to the same few media sources for information, while media companies try to cater to specific demographics. Wealthy voters in politically red neighborhoods might encounter more advertisements for Republican politicians, regardless of whether or not they are Republican themselves (Iyngar, 2009, p.3).

Selective exposure theory in American media has coincided with the rapid fragmentation and later polarization of online news sources. "Fragmentation" is what occurs when the audience of one or two sources becomes more widely

distributed across news platforms (Dubois & Blank, 2018, p. 731). It's not a

harmful process on its own. However, selecting specific outlets and ignoring

others—such as the case in selective exposure theory—can feed into news

polarization. Polarization occurs when communities divide on an issue (Dubois &

Blank, 2018). When audiences are pushed further left or right by polarization, it

can lead to individuals choosing "alternative" news outlets over mainstream

sources. These networks, operating outside of the need to verify information like

traditional journalists, have been known to publish and promote false information

and stories that later end up being false (Bergmann, 2020).

      Misinformation circulation can produce dangerous results, many of which

alternative outlets will not take credit for. In order to understand how this kind of

information spreads throughout anti-media authority networks, we must first

understand the process of digital information circulation.

Processes of News Circulation

News circulation is the process of spreading messages and ideas through people and institutions (Bødker, 2015). It includes the production, distribution, and reproduction of information across platforms. Processes of news circulation, which used to be based on physical media and word of mouth, now rely on the non-linear, globalized nature of the internet. To better understand the distribution of information online, we will turn to Carlson's three components of digital news circulation: infrastructure, circulation practices, and epistemic contests. These components the flow of information as well as how readers assess epistemic claims for legitimacy.

The infrastructure of digital spaces does not adhere to the same temporal and spatial limitations as the physical world. Digital news can spread across platforms and countries through human and non-human actors (Carlson, 2020, p. 236). Putting a piece of information on Facebook makes it shareable to your entire friends list in an instant. Users in Russia can access information about events going on in Brazil, just as quickly as Brazilians could do the same for Russia. Non-human actors are just as important in the infrastructure, if not more so; YouTube creators rely on the platform's algorithm to promote their videos, and many have experienced content suppression if they don't meet the algorithm's standards for "good content". Twitter algorithms are designed to promote popular stories, often in short, digestible pieces. These structures can help push popular stories and suppress important information.

In digital space, human actors can select what sources they engage with, while algorithms can push specific stories that fit the user's narrative. The choices of these individual actors are known as circulation practices. Carlson highlights two key aspects of online consumer practices: curation systems and mobile media (p. 238). Curation limits the sources encountered online to whatever the reader has selected; this can be by only following individuals in specific interest groups, following or censoring hashtags, or viewing content selected for them by the algorithm. Mobile media is another term for social media, which has been covered in prior sections of this review.

The final component of circulation is the role of epistemic contests in news selection. Epistemic contests are made when individuals publicly question the claims made in a piece of news (Carlson, 2020, p. 240). With the increasing political polarization of news sources, epistemic claims must compete with each other to assert legitimacy. The competition leads audiences to question sources and identify figures they trust to distribute accurate knowledge. Digital spaces complicate epistemic contests by creating direct channels of information that can go unchallenged. Former U.S President Donald Trump's Twitter feed went unchecked for years, often challenging claims made by mainstream "liberal" media. He and other "alternative news sources" are elevated to the same level of news-making as trained journalists (Godler et al., 2020). These sources make claims using tactics similar to the mainstream authorities, but do not actually provide factual information. The following section will explore how these claims are part of a larger problem in knowledge production: the spread and acceptance

of misinformation narratives.

Misinformation and Conspiratorial Narratives

The growing distrust in journalism and the fragmentation of mainstream media have led to two trends in modern news consumption. Media fragmentation and the turn towards digital knowledge production has led to the proliferation and acceptance of misinformation in digital spaces. The acceptance of conspiracies as truths can get in the way of actual news dispersion and, if there is nothing done to intervene with some drastic narratives, these claims can present a real danger to actual people.

Misinformation and disinformation can be found in media narratives throughout history. They're three distinct concepts that all play a role in the proliferation of false information in news media. Misinformation is false information that is spread unintentionally, while disinformation is incorrect information that's intentionally spread by malicious actors as a method of disrupting the flow of "truth" (Van Heekeren, 2019). Both contribute to the construction of a conspiracy, a fake information narrative that attributes a political or social event to an elite group of actors who are trying to maintain power or cause harm (Mancosu & Vegetti 2020).

Though they're characterized by news discourses as unbelievable and ridiculous, conspiracies are often built on dangerous ideas that promote disbelief in mainstream authorities. Countries with a highly polarized political divide and stark socioeconomic inequalities—like the United States—are susceptible to

populist attempts at social division (Thomson et al., 2020). One example of this populist conspiracy overlap is the Pizzagate narrative from 2016, a story that came out of the far-right misinformation group QAnon. Pizzagate argued that prominent liberal politicians were running a pedophilic sex trafficking ring out of a pizza place in Washington D.C. (Bergmann, 2020). It was first circulated online in March by the alternative news outlet *InfoWars*. The Pizzagate narrative almost caused physical harm when a North Carolina resident stormed the pizza restaurant with an assault rifle (Bergmann, 2020, p. 251). While this is not the only example of a conspiracy affecting the real-world, it is important as it represents the danger of internalizing populist conspiracies as "truths". This thesis hopes to provide a more in-depth assessment as to why populist and anti-health authority conspiracies continue to circulate as a part of pandemic discourses.

Pandemic Narratives in the Media

In order to understand COVID-19 misinformation narratives, I want to first discuss the history of prominent pandemic discourses and motifs. Pandemic narratives in the media are built on specific perceptions of health that might diminish the severity of one disease while exaggerating another. These narratives come from both traditional news and entertainment media, and can influence the audience's risk perceptions of disease (Kendal, 2019). Some of these narratives promote international discord, while others contribute to the growing distrust of health authorities. The following section will review some of the most common

pandemic narratives, before synthesizing this literature section with a discussion about health conspiracies.

One of the most pandemic motifs is the presence of xenophobic subtext in media coverage. There are two techniques used in xenophobic narratives: active blaming and passive othering, the latter of which is a theory originating in Edward Said's essay *Orientalism.* Both use xenophobia to characterize a foreign country as responsible for a pandemic. Active blaming depicts a country as a specific target, while othering presents an "us vs. them" narrative and makes negative knowledge claims about the "them" (Said, 1978/2010). An example of othering was the early coverage of the 2009 H1N1 outbreak, which labeled it "the Mexican flu" and presented the virus as an issue endemic to Mexico (Smallman, 2015). Because US media outlets depicted Mexico as violent and dirty, their audience were led to believe that the country was a natural birthplace for the virus. An example of active blaming is the coverage of tuberculosis in New Zealand, where reporters regularly isolate immigrants—particularly refugees—as the sole spreaders of the infection (Lawrence, 2008). Both narratives pinned an epidemic on a marginalized group as a method of shifting blame away from the dominant government and health authorities, whether or not they've actually failed to act.

Another common motif in pandemic narratives is the usage of war rhetoric to describe an epidemic. Viruses are framed as military opponents that only the regimes of science can defeat (Lawrence, 2008). An analysis of Belgian television coverage highlighted the use of military vocabulary to frame SARS as an aggressive conqueror (Joye, 2010). SARS was a foreign invader attacking

national soil. This language asserted SARS as a foreign threat—one linked to an exotic country—and framed the brave Belgian scientists combatting it as heroes. This kind of representation is an attempt to build trust between the public and the health authorities. Other forms of war rhetoric focus on the impacts of the disease on the general population. During the H1N1 pandemic, tensions in Egypt boiled to the surface between religious groups as Coptic Christians continued to bring pigs into the country (Smallman, 2015). One religious leader claimed H1N1 was "more dangerous than the hydrogen bomb…It is a punishment from God" (Smallman, 2015, p. 8). His statement drew on fears of international attacks as well as religious panic. Being worse than the H-bomb makes H1N1 appear like a tool of bioterrorism; this language preys on fears of bioterrorist attacks, disrupting scientific attempts at isolating a natural origin and stirring up panic in the public. In some cases, such as the case with COVID-19, fears of bioterrorism spiral into full-blown conspiracies.

An overarching theme in news media coverage, film discourse, and health information is the role of conspiratorial narratives impeding the spread of medical facts. Many pandemic movies include a conspiracy plot attributed to the government, the pharmaceutical industry, or the Centers for Disease Control (Kendal, 2019, p. 6). These narratives are representative of a larger outbreak of conspiratorial misinformation, as every new epidemic is plagued by health conspiracies. They often stem from a lack of information during the early days of the pandemic (Smallman, 2018). These narratives are still dangerous, though, as

they promote the rejection of public health recommendations, which in turn can prolong the effects of the pandemic.

A Word on Narrative

To understand how misinformation narratives are produced and accepted by conspiracists, first, we must address the construction of narratives. They are made up of events and motifs (or repeated ideas) that produce a meaning or truth (Shklovsky, 1966/1990). Every story has a distinct set of events with a cause-and-effect relationship. The context and form of a narrative are understood based on its relationship with other stories, as they all are reproductions of the same motifs in different contexts (New World Encyclopedia, 2021). To understand the meaning of a narrative, an analyst must look at the individual components that contribute to the story's sequence of events (Louchart & Aylett, 2004). These are "motifs", or repeated ideas and symbols that hold specific meaning. This includes the characters, their actions, and the setting. In his writing on Russian folktales, formalist Vladimir Propp designed a system of "symbolic identifiers" that classified the components of a story and explained why they occurred in a specific sequence. Within specific genres, every narrative will share the same structures and truths. This is important to note, as when we move into the results and discussion, we will return to the reproduced truths of conspiracy narratives, as well as examine the cause-and-effect relationships within the stories.

Synthesis

Using these established concepts in media studies and geography, I am situating the distribution of conspiracy narratives within the realm of digital geographic space, as a byproduct of the mediated fragmentation of American news media. The process of misinformation distribution starts when alternative news sources—online platforms that were founded in opposition to mainstream media—publish misinformation about a health crisis. Readers who've elected to believe that platform as an epistemic authority circulate that information in their personal social networks, including special interest Facebook groups and on Twitter. The infrastructure of these social spaces allows misinformation to be spread rapidly without immediate intervention from the site's administrators. This process is particularly harmful when it comes to health misinformation, as the acceptance of these conspiratorial ideas can lead to the increased risky health behaviors, conflict with health authorities, and in some cases, the destruction of public property.

While this literature covers the process of misinformation distribution, it does not address the role that digital spaces and the mainstream media play *within* a conspiracy narrative. How do conspiracies take advantage of digital space to avoid third-party actors? What about digital media spaces, such as mainstream news? This thesis will evaluate the roles of social media and mainstream media within the context of the narratives, as well as their impact on circulation. Though the literature might understand the distribution, it does not explore the narrative appeals that inform circulation practices. The research might indicate a link

between belief in conspiracies as truth and negative health behaviors, but it does not discuss how the narratives use epistemic techniques to assert themselves as "knowledge". Smallman's coverage of Zika conspiracy narratives addresses their spread over social media, but does not indicate what core concepts established them as "truths" for some individuals. In that regard, this thesis will assess how the origins and appeals of narratives can help establish epistemic claims, as well as provide valuable insights on how digital social spaces promote the sharing of harmful information.

4. Methodology

Critical Discourse Analysis

I utilized the critical discourse analysis methodology to understand how specific narratives are constructed, reproduced, and circulated within certain contexts. Originating with the French philosopher Michel Foucault, the critical discourse analysis method is designed to be an open process of analyzing "media" to offer insight towards how an idea becomes a dominant piece of knowledge (Waitt, 2010). Through an epistemic lens, this analysis seeks to understand how some ideas are produced and converted into socially accepted "knowledge" by way of rhetoric and imagery. Critical discourse analysis also examines how certain media structures legitimize some narratives and reject others (Millear, 2015). Critical discourse analysis differs from methods such as content analysis, which focuses on the co-occurrence of words and categorizes phrases in simpler terms. Instead of highlighting the relationship between specific words, a critical discourse analysis addresses the larger reproduction of ideologies across texts. This is a primary reason I have selected a CDA: I aim to track the circulation of ideologies across media—mainly social media and news articles—as well as how they've been reproduced in different texts.

The critical discourse analysis can be met with scrutiny, as it does not have a concrete set of rules. In Foucault's initial writing, he neglected to outline clear guidelines about what was a valid form of discourse analysis, out of the fear that his work would be too formulaic (Waitt, 2010). Much like how Foucault's writing was criticized for being too vague, on its own, the discourse analysis method

lacks structure and guidelines for analysis. To mitigate this, human geographers have proposed their own frameworks for discourse analysis (Johnson & McClean, 2020). Each discourse analysis should start with a careful selection of the type of texts, as well as a familiarization with the texts—or "absorbing oneself" into the themes (Berg, 2009). Geographer Gordon Waitt (2010) outlines additional steps for the process of analysis, starting with a coding period to identify recurring themes and ideas. During the coding, researchers should identify "regimes of truth" present in the narratives, inconsistencies in the discourse, and the "silences" present—or in other words, identify who is and isn't speaking (Berg, 2009). I will use these steps for my discourse analysis and expand upon my coding steps later in the methodology.

Media coverage of COVID-19 conspiracies presents a complex array of rhetoric and ideologies that represent a variety of power dynamics, physical and digital geographies, and epistemic infrastructures that determine what is presented as truth and how it is circulated. In his 2018 paper discussing the origins of Zika conspiracies in Brazil, Shawn Smallman uses a discourse analysis of news media, opinions articles, YouTube videos, and other materials from social media spaces to identify where a piece of misinformation originated and how the different forms of media aided in conspiracy circulation. Smallman's analysis of Zika conspiracies recognized that "People's opinion, attitudes, and beliefs are shaped by material that they receive through WhatsApp, Reddit, YouTube, and social media" (Smallman, 2018, p. 2). This comprehensive research covers more than just the social media where conspiracies circulated, resulting in a nuanced

discussion on the media's role in spreading conspiracies. Working within the realm of generalized news media coverage also allows for an analysis of how media outlets affect health risk perception. Stijn Joye's research on the discussion of SARS in Belgian news media utilizes a critical discourse analysis to assess the representations of "distant" suffering and health risk assessment (Joye, 2010). This analysis exposed the absence of sympathy for other cultures and the exaggerated risk perception for the local culture. Though Joye did not study conspiracies, his research highlighted how forms of news reproduced misinformation that resulted in an altered state of risk perception. As the primary effect of believing in a conspiracy is a change in risk perception, we must understand how those conspiracies are circulated and legitimized in media circles so that they can be prevented. Therefore, the critical discourse analysis is an appropriate approach for this research question and pandemic.

Sampling Framework and Selection

Throughout 2020, conspiracy misinformation was spread in digital circles by way of sharing articles and videos on social media. In the United States, most of this narrative circulation occurred online through Facebook and Twitter. However, the implementation of misinformation policies on Facebook, Twitter, and YouTube has reduced the number of conspiracy posts currently available online. This discourse analysis instead focuses on news media coverage, which can document the rhetoric without being removed from the internet. It focuses on articles from the mainstream media, defined here as news institutions that produce

content in two or more spaces. In some cases, this refers to online publishing as

well as radio programming, while in others it refers to media production across

different digital spaces (such as producing written content as well as YouTube

videos). Mainstream news media itself plays a role in the development of

narratives, as it can either validate the conspiracy or reject the narrative, which

indirectly legitimizes the misinformation's ideology. This, combined with the ease

of searching and filtering news articles, is what led me to focus my data selection

on mainstream media.

    This methodology draws from several similar critical discourse analyses

that focus on the reproduction of health information and ideologies. Regarding the

discourse analysis's structure, I adopted steps outlined in Lawrence D. Berg's

2009 article on discourse analyses, discussed above in the CDA section. Similar

steps were utilized in Eric Carter's examination of the Blue Zone Project's online

promotional campaign (Carter, 2015). The decision to analyze news media comes

from Shawn Smallman's research about Zika and H1N1 conspiracies, which used

a mix of traditional and alternative media to track and explain how

misinformation beliefs become accepted as knowledge (Smallman, 2018;

Smallman, 2015). Stijn Joye's discourse analysis on SARS coverage was also an

influence, as it follows deconstruction of risk perception in mainstream news

media.

    To provide a range of data that reflects the dominant mainstream

authorities in US news circles, documents for this study were collected from

eleven news sources. The variety in selection includes both "objective" reporting

and "subjective" reporting, reflecting the shift towards opinion articles and think-pieces as part of the digital turn of journalism. The documents include a range of political beliefs, including left and right-leaning media, as well as politically neutral outlets. The array of sources compensated for the deleted social media content, providing a detailed history of the narratives and their reproduction. The data comes from news-focused media, "digitally turned" media (or the outlets that have shifted to opinion-driven content), and post-digital media. The documents themselves are a combination of news articles and video transcripts, and include screenshots of deleted Facebook posts and Tweets. They were published between January and October of 2020; the narratives first circulated in January, and were finishing circulation by October.

I selected three conspiracy narratives that circulated throughout the COVID-19 pandemic. Each narrative was selected for the real-world consequences attributed to them. The three narratives are the Wuhan Lab narrative, the 5G-COVID narrative, and the Plandemic narrative. The Wuhan Lab narrative was first popularized in mainstream US social circles by Senator Tom Cotton and picked up attention from conservative politicians and news outlets. The promotion of and belief in this narrative has led to an increase in anti-Asian hate crimes, as the Wuhan narrative paints Asians and Asian-Americans as those responsible for the pandemic (Kaur, 2021). The 5G-COVID narrative builds onto years of anti-technology anxieties, arguing that the installation of 5G cellular towers was the inception of the pandemic. Conspiracists who believe that 5G causes COVID-19 have started to destroy cell towers in the United Kingdom and

across Europe, leading the US Department of Homeland Security to start preparing for physical attacks here as well (Kellion, 2020). The final narrative is the Plandemic narrative, named after the viral *Plandemic* docu-series that aired in the summer of 2020. This narrative combines several common pandemic conspiracies and blames Bill Gates, Dr. Anthony Fauci, and other international health authorities for COVID-19's creation. Believers in the Plandemic narrative have an increased chance of rejecting social distancing and quarantine norms, and some of them have cited the scientist at the heart of *Plandemic* as why they refuse to wear a mask. Most drastically, the Plandemic narrative pushes the idea that vaccines are dangerous, prompting a new wave of anti-vaccination sentiments across the country.

Borrowing from Shawn Smallman's Zika research, I employed a selective sampling method to identify and filter through sample documents. First, a general search was performed for news relating to certain keywords. Each narrative had two keywords or phrases that I used during this search period. Once a source was identified as having two or more documents surrounding the narratives, I used the news source's search engine to identify older documents using those same keywords. The keywords for the Wuhan lab narrative were "Wuhan" and "China coronavirus". The phrases for the 5G narrative were "5G causes COVID" and "5G coronavirus". Finally, the phrases for the Plandemic narrative were "Plandemic" and "Judy Mikovits". Documents in the sample were produced between January and September. This time frame was determined as mainstream recognition of COVID conspiracies began in January and slowed down in

September. Conspiracies were recognized after this, but the focus of many of these documents was QAnon, which was not a primary focus of this research. A total of 57 documents were collected, with 19 documents per narrative.

Coding

The coding strategy employed in this research was taken from Berg (2009) and Carter (2015) and is meant to alleviate the subjectivity issue inherent in CDA methods. The process started an initial coding phase based on four coding groups, a secondary coding for smaller sub-themes, the identification of common "truths" and inconsistencies within the narratives, and an examination of the producer/consumer/subject relationship.

All samples were coded using Atlas.ti. Before coding, I identified four broad code groups based on the main themes presented in this paper's literature review. For the first coding period, I used these groups to sort quotations and noted sub-themes that would be useful for my final analysis. These codes were applied during the second period, highlighting the main rhetorical trends and narrative patterns. This period was also dedicated to identifying who was absent from the sampling. Quotes were highlighted with larger codes were assigned sub-theme codes as appropriate.

The four coding groups I developed were Digital Space, Epistemic Authority, Conspiratorial Narratives, and Pandemic Narrative Trends. There was also a miscellaneous code, used for noting interesting phrases that didn't fit into the four code groups but were still worth discussion. The Digital Space code

group contains codes related to mediated geographies and social spaces that are

built through digital environments; example codes include "social media" and

"anti-authority networks". The Conspiratorial Narratives group encompassed

codes that focused on conspiracy rhetoric, generalized misinformation, and

specific conspiracies. This section included codes such as "cover-up", "removal

of information", and "QAnon". This group had some overlap with the Epistemic

Authority group, which focused on methods of asserting "truth" in the media.

This section included the codes "MSM"—shorthand for Mainstream Media—and

"political recognition". The final group was Pandemic Narrative Trends, shifting

the focus to how conspiracies and mainstream media sources built upon past

outbreak narratives. This includes "anti-vaccination" and "xenophobia", two

themes that have been identified in the literature surrounding older pandemics.

Table 1. Example of Code Groups, Codes, and Quotations

Code Family	Code	Quote
Digital Space	Anti-Authority networks	"Featuring Judy Mikovits, who was fired from her job and whose findings about chronic fatigue syndrome were retracted, it falsely says that masks can make wearers sick, that sand can cure the coronavirus, and that autism can be tied to vaccines." (BFN, 6). *(Other codes: anti-vaccination movement, victimization, "virologist".)*
Epistemic Authority	Epistemic contests	"Specifically, Dr Yan never conducted any research on human-to-human transmission of the novel coronavirus at

		[the University of Hong Kong] during December 2019 and January 2020, her central assertion of the said interview." (FXN, 4) *(Other codes: "Virologist", misinformation)*
Conspiratorial Narratives	Conspiracy at large	"Other prominent theories include the claim that the virus was accidentally released by the Wuhan Institute of Virology, or that it was deliberately made as a biowarfare weapon, either by the Chinese or the Americans. One increasingly popular idea is that the pandemic is part of a plan by global elites like Bill Gates or George Soros – in league with Big Pharma – to institute mandatory worldwide vaccinations that would include tracking chips, which would then be activated by 5G radio waves." (CON, 1). *(Other codes: conspiracy overlap, pandemic discourse, Wuhan).*
Pandemic Narrative Trends	Pandemic origins	"Third, Martin alleged that the National Institutes of Health believed there were legal and moral issues with its research on coronaviruses, which motivated scientists to transfer the research to China. He based that assertion on a protocol change that placed a moratorium on funding for gain-of-function research on a number of viruses in the United States, including coronaviruses." (UST, 3). *(Other codes: conflict with authority, misinformation, overlap, pandemic discourse)*

5. Results and Analysis

The results of this thesis explore the relationship between the digital spaces, media, and motifs (or themes) of conspiracies. The analysis indicates that the narratives have the unique ability to adapt events and interactions with other infrastructures. These infrastructures are spaces built by both technological processes and interpersonal interactions—in this case, I am referring to social media and mainstream media. The results also explore the components that make up the narratives, which either contribute to the emotional appeal of a story (the pathos) or the epistemological claims (the logos).

These findings were constructed after coding my sample data. I used Waitt's CDA guidelines to assess the 'regimes of truth' present in the documents, or the epistemic ideas and core events of the narratives. In this research, the regimes of truth will also be referred to as narrative motifs. I also analyzed the inconsistencies presented in the core narratives and the way the media discourses address the stories. The final results are organized into three thematic groups. The first covers the relationship between digital media infrastructures and conspiracies. Includes an exploration into different infrastructures and how they interact with the narratives. Social media and news media are both discussed in this section. The second thematic group addresses the common events that occur in the three conspiracy narratives. This includes narrative themes, such as the common "cover-up" narrative, as well as the event inconsistencies within the narratives. The final thematic section covers issues of epistemology and authority inside the narratives and outside in media discourses. This addresses the

epistemological conflict between conspiracy narratives and health authorities, in addition to how conspiracy narratives act as knowledge authorities.

The circulation of narratives through digital infrastructures

COVID-19 conspiracy narratives circulate through social media networks, YouTube videos, and mainstream media reports. The infrastructures aid narratives in circulation, as well as play distinct roles within the stories. Social media infrastructures promote direct sharing between actors or in private groups and present misinformation as "alternate explanations" for the consequences of the COVID pandemic. Mainstream media can either present misinformation as a potential truth or reject the narrative, while indirectly redistributing the story into new spaces. Even attempts at removing the stories play a role in the narrative's development, as it can lead to the construction of new conspiracy spaces.

According to the analysis, the conspiracy narratives were common in infrastructures that relied on a mix of social interactions and technology. These spaces—most commonly known as social media—are built with code and have unique "sharing" features embedded in the site's data. The code allows for interpersonal interactions between users, who can select what they share, where they share it from, and who it's shared with. They operate as the "setting" of a narrative. Facebook, Twitter, and YouTube are the most common spaces for conspiracy circulation, based on specific infrastructural elements. On Facebook, these narratives are found in private Facebook groups that have the power to select who is and isn't allowed inside. Many of these groups were dedicated to

far-right politicians, "alternative health" practitioners, and members of QAnon.

The narratives were dispersed into these groups via the 'sharing' feature (NYT, 3;

NYT, 4). This feature allows for sharing from group to group, leading to a

cross-circulation between different social spaces. The *Plandemic* documentary,

for example, was first shared in a private QAnon Facebook group, and from there

it appeared on a page for a prominent member in the anti-vaccination movement

and a page for the Alabama chapter of the Reopen America group (NYT, 4). The

sharing feature is similar on Twitter, which allows users to "retweet" an idea they

agree with or want to comment on. Unlike private Facebook groups, Twitter

infrastructure allows users to create as many accounts as they want and share

information with anyone on the platform. One new Twitter user named

@5gcoronavirus19 was able to send out over 300 tweets in a matter of a week; all

of these tweets promoted the 5G-COVID narrative and many of them tagged

prominent Republican politicians, some of whom hadn't mentioned the

conspiracy at all (CON, 1). The lack of a fact-checking algorithm allowed

celebrities to share misinformation to millions of people without checking their

sources, like the tweets from performer M.I.A that encouraged her followers to

question if the virus was real or if the symptoms were actually the consequences

of 5G radiation (VOX, 3).

Much like Twitter, YouTube lacked a fact-checking algorithm or an

anti-misinformation policy. The video-sharing network allows users to chop up

and post clips of information from larger videos across the internet. The algorithm

had a limited understanding of "misinformation" and promoted videos of a Fox

News interview with Senator Tom Cotton, a vocal contributor to the Wuhan narrative (YTB, 2). YouTube was also rife with conspiracy videos claiming that 5G was a health hazard. Some of the most popular videos were created last year after cellular companies first rolled out 5G in select cities (BFN, 1). These videos were pushed by QAnon YouTubers and eventually turned into a weak connection between 5G and COVID-19 (UST, 4; BFN, 3).

In addition to social media infrastructures, conspiracy narratives also surfaced in mainstream media "spaces" online. These spaces were constituted as news websites, affiliated social media accounts, and media-produced videos. The COVID-19 narratives circulated in these spaces as "news", and while in most cases they were being presented as fictitious misinformation stories, some outlets treated the stories as credible knowledge. The Wuhan Lab narrative was treated as the most credible story, as some of the actors who contributed to its development were journalistic or political authorities. It was mostly reproduced through factual news articles, save for a few opinion pieces. The first major news article about the Wuhan narrative was published by the Daily Mail on January 23rd (TWP, 7). The narrative picked up speed when Josh Rogin, a political columnist at *The Washington Post*, published two-year-old cables from US science diplomats; these cables fueled the conspiracy by indicating that there were "safety concerns" about the Wuhan Institute (BFN, 3). Citing both this article and the statements made by Tom Cotton, Fox News published several reports on COVID-19's origins (FXN, 1). Other articles introduced witnesses to the narrative, referencing the claims of a former MI6 agent and an interview with the alleged Wuhan whistleblower (FXN,

9; FXN, 4). Fox News's wealth of Wuhan coverage stood out in the data as one of the only instances of a mainstream news source that gave a conspiracy narrative epistemic credit, while also condemning other conspiracies at the same time.

Fox News was not the only news outlet to promote a conspiracy narrative. The 5G-COVID narrative was introduced into mainstream spaces in January, first breaking into news media on the 22nd in a Belgian newspaper (FXN, 8). Coverage increased in late March and early April when Infowars host Alex Jones connected the 5G narrative to another popular QAnon conspiracy that claimed the world would experience a universal power outage on April 1st (BFN, 1). In June, a high-quality video from the digital news network Vice included interviews with academic figures as well as proponents of the 5G narrative; though the intention of the video was to push back against the conspiracy, the video indirectly gave a platform to 5G conspiracists (YTB, 1). The Plandemic narrative received the least "media credibility", though its main character, Dr. Mikovits, was at the center of a broadcasting controversy in July. The American media distributor Sinclair Broadcast Group came under fire for an interview with Mikovits (VOX, 1). Sinclair has an expansive network of local-access news stations and provides rural areas with reliable news information. despite the network's alleged attempt at providing multiple perspectives during the interview. The interview was filmed but pulled from release due to criticism from mainstream media authorities. This is representative of a larger obstacle for conspiracy circulation: misinformation policy and censorship.

The introduction of misinformation policies in digital social spaces occurred in later April of 2020, at the peak of the 5G and Wuhan narratives. Twitter installed an algorithm meant to detect and alert users to COVID-19 misinformation (CNN, 5). After the release of *Plandemic*, Facebook began "fact-checking" posts to avoid the spread of misinformation (BFN, 6). YouTube's crackdown included removing videos that violated its misinformation policy, warning users about potential misinformation, and reducing the number of misinformation videos in the "Recommended Video" section (CON, 2; TWP, 2). The Plandemic narrative saw the quickest infrastructural reaction, as it was removed from Twitter, Facebook, and YouTube only three days after its release (NYT, 4). These policies have received criticism for their "silencing of alternative opinions" (FXN, 5). As Fox News host Tucker Carlson remarked in one document, those being censored were targeted because they "reached different conclusions than the people currently in charge" (FXN, 7). These claims coincided with claims made by *Plandemic* subject Judy Mikovits, who believed her "silencing" was because she'd asked too many questions (YTB, 3).

With the introduction of misinformation policies, narratives were forced to relocate. The conspiracy networks moved communication to less regulated communication apps like WhatsApp and Telegram. Clips from *Plandemic* began to circulate on the video-sharing app TikTok (BFN, 7). Even the crowdfunding website GoFundMe was turned into a platform for the conspiracies, after a QAnon supporter created a campaign designed to promote Judy Mikovits's misinformation narratives (NYT, 1). The fundraiser was later removed for

violating GoFundMe's terms of service. In terms of new social spaces, a group known as Stop 5G UK built its own social network for believers in the 5G-COVID narrative (BFN, 2). *Plandemic II: Indoctrination* received its worldwide release on a third-party platform, while the original film was moved onto other third-party websites to avoid mass-removal (BFN, 6). Censorship and misinformation policies proved to only be effective at pushing the narratives into more secure settings.

Regimes of truth in conspiracy narratives

As narratives, COVID-19 conspiracies have several key regimes of truth that help classify them as misinformation stories. These motifs include the distrust of certain authority figures and science, the fear of the unknown, and an alleged "deep state" that wants to take over the world. The "truth" of these narratives is focused on identifying the culprit. This leads to several narrative inconsistencies and indicates that identifying a scapegoat or rejecting the dominant health behaviors is more important to conspiracy audiences than the "truth".

COVID-19 narratives encourage their audiences to reject dominant health authorities, who are depicted as corrupt and manipulative. "Health authority" includes experts from the CDC, NIH, and the WHO, as well as anyone associated with vaccination programs and the pharmaceutical industry. According to COVID conspiracy narratives, health experts are overreacting in an attempt to scare civilians into complying with the government (FXN, 7). The virus is either a weapon created in order to sell vaccines or is a hoax meant to cover up the crimes

of big tech companies and 5G (CON, 3; FXN, 7). The specifics vary depending

on the narrative. In the Wuhan narrative, experts at the CDC and the WHO are

liars who want to cover up the virus's true origins. Because they have not verified

the narrative—that is, because the WHO has not explicitly stated that COVID-19

came from a Wuhan lab—the narrative argues that the WHO is sacrificing the

world for "political correctness" (FXN, 1). The Plandemic narrative depicts Bill

Gates and Dr. Anthony Fauci as villains responsible for the virus. *Plandemic II:*

Indoctrination takes specific aim at Gates using a 2013 study that found the Gates

Foundation had a "weak regulatory environment around pharmaceuticals" (UST,

2). The Gates Foundation is also invested in companies that "cause the social ills"

they claim to be fighting. Gates himself will profit off of the sale of COVID-19

vaccines, whether or not they actually work. *Plandemic II* also argues that

because the CDC "patented" Sars-CoV, it must be man-made, as it is illegal to put

a patent on a naturally occurring phenomenon (UST, 3). *Plandemic* points to a

fund transfer from the NIH to the EcoHealth Alliance and then to the Wuhan

Institute of Virology, claiming it's evidence that the NIH funded the production of

COVID-19 (UST, 3). The narrative reproduces rhetoric from its "main character"

Dr. Mikovits, whose distrust of health authorities stems from the perceived lack of

accountability of pharmaceutical companies:

> "You can't sue the doctor, you can't sue the manufacturer. There's a
>
> federal court that oversees vaccine injury and it's more corrupt than
>
> anything you could ever imagine. And so they do everything they can to

keep the public from knowing that every single shot damages you." (YTB,

3)

Dominant health authorities are too powerful and exert their power to continue

controlling the population with harmful vaccines. Any information that supports

their arguments is fake, and therefore anyone who supports the health authority is

in on the lie (CON, 2).

The 5G narrative blends the distrust of health authorities with age-old

fears about new technology to create a conspiracy that vilifies established doctors

and scientific research on cell phones (UST, 4; TIM, 2). Every new wave of

telecommunication technology has garnered the attention of conspiracists.

COVID-19 is a convenient scapegoat for the 5G narrative, providing supporters

with real "symptoms" of 5G (UST, 1; YTB, 1). COVID-19 is most likely just

radiation-induced pneumonia, caused by the increase in 5G towers. Experts who

say otherwise are on the payrolls of the telecommunications industry and are

complicit in radiation poisoning. By positioning health and science authorities as

the big, powerful enemy, COVID-19 conspiracy narratives turn the masses against

the people who are trying to help them.

COVID-19 conspiracies also exploit fears of the unknown and the need

for an explanation in the face of a new threat. All three pandemic narratives

featured in this analysis are explicit about identifying the "true" causes of

COVID-19. In some cases, such as the 5G narrative, the conspiracy is about a

worldwide cover-up. The first few cases of COVID-19 in Wuhan happened to

overlap with the installation of 5G cell towers in the same area; yes, people were

dying, but that was because the government was testing out the strengths of 5G

(VOX, 3; YTB, 1). According to 5G conspiracists, the lack of proof indicating

that 5G doesn't emit radiation is a sign of the cover-up (CON, 1). The great 5G

cover-up scheme also means that the death tolls might be exaggerated—a

common theme across COVID-19 narratives. The Plandemic story states that

death tolls were being exaggerated to "pave the way for a large-scale vaccination

program" (CON, 3). It argues that Big Pharma and the CDC are working in

tandem to sell "harmful" vaccines for profit. In order to do this, health authorities

at the CDC are giving Americans incorrect information; wearing a mask, for

example, is actually a way to activate the COVID-19 virus as opposed to being a

protective measure (BFN, 5). The Wuhan narrative pins the blame on China, a

longtime enemy of democracy in the US. Using reports that the Chinese

government tried to suppress COVID-19 news, the narrative suggests that China

is the real villain—unlike the Republican party, which has fought valiantly to get

the truth out (FXN, 1). This racially charged "Chinavirus" narrative redirects

COVID-19 frustrations away from the Trump administration's botched

COVID-19 management (NYT, 5). The narrative distracts its audience from

mistakes made by "heroes" and weaponizes frustration into physical attacks on

the "enemy".

     Throughout the analysis, it became clear that all three narratives had been

influenced and recontextualized by the QAnon conspiracy. QAnon is a far-right

conspiracy that believes in a "deep state" run by Satan-worshipping cannibal

liberals. It has existed in far-right digital social circles since 2016 when it first broke through as part of the #Pizzagate conspiracy (CON, 1). The role of QAnon in the circulation and construction of these narratives suggests that the narratives are more common in far-right spaces. For example, one of the first places that *Plandemic* broke was in a private QAnon group, posted with the caption, "Exclusive Content, Must Watch" (NYT, 4). From here, users shared it to pages for conservative politicians and their personal social circles. Both narratives include the "deep state" motif. *Plandemic*'s suggestion that COVID-19 was invented by health "elites" as a method of selling harmful vaccines is repurposed to fit QAnon's world domination narrative (CON, 3). Unrelated to the *Plandemic* documentary, QAnon YouTuber Jordan Sather produced conspiracy videos claiming COVID-19 was "planned" by virologists (BFN, 3). He based his claims on a 2015 coronavirus vaccine patent, much like *Plandemic II* would later in the year. Q supporters also influenced the 5G narrative, sharing threads on Twitter about the health effects of electromagnetic radiation and how they're "suspiciously similar to exposure to 5G" (VOX, 3). According to QAnon, the media is censoring the truth as a method of controlling the public. The older a COVID-19 narrative got, the more it was woven into the larger QAnon story. The narrative's sprawling online presence helps share and shape the COVID-19 stories into more aggressively anti-mainstream health and media authorities.

Though the COVID-19 narratives have many motifs in common, they all included a number of inconsistencies in event sequences and causality. Each narrative has a clear statement of truth or cause. Things fall apart when the

narratives try to explain *how* the cause creates the effect (COVID-19). Early

claims about Wuhan indicated that COVID-19 was a bioweapon, created

intentionally as an attack on the US (BFN, 3). Later, rhetoric from Republican

politicians was adopted into the narrative to argue that COVID was covered up by

the Chinese government (TWP, 3). Some believed that COVID-19 wasn't as

deadly as the WHO was making it seem, while others recognized its severity and

just wanted the "truth" about its origins to come out (FXN, 1). The Wuhan

narrative made guest appearances in the *Plandemic* conspiracy, as some versions

of the narrative argued that COVID-19 was a tool designed by Big Pharma and

constructed in Wuhan (CON, 2). Plandemic is riddled with inconsistencies. The

Judy Mikovits version of the story claims that everyone already has COVID-19

and that wearing a mask activates the virus. *Plandemic II: Indoctrination* goes on

to argue that either COVID-19 was a naturally occurring phenomenon that the

CDC put an illegal patent on, or it was a man-made virus being covered up by Big

Pharma and health officials (UST, 3). The diverging pathways indicate that the

Plandemic conspiracy has broken up into sub-narratives with different sequences

of events. Even the creator of the *Plandemic* documentary, which informs most of

the narrative's components, stated that he did not understand what chain of events

led to COVID:

> When *Plandemic* filmmaker Mikki Willis was asked if he really believed
>
> COVID-19 was intentionally started for profit, his response was 'I don't

know, to be clear, if it's an intentional or naturally occurring situation. I
have no idea.' (CON, 2)

Other *Plandemic* sub-narratives borrow ideas from QAnon and claim that
COVID-19 came from a "tainted batch of children's blood that the world's
celebrities drink to stay young" (BFN, 1). Still others argue that the virus was
made to sell vaccines equipped with tracking chips that will be activated by 5G
radiation (CON, 1). This is just one of the many things that the 5G narrative
claims it can do. Radiation pneumonia is one side-effect, which could explain
symptoms of COVID-19 in the respiratory system (YTB, 1). 5G is also capable of
weakening the body's immune system, as well as transmitting COVID-19 directly
(CON, 1). And at the same time, COVID-19 is a hoax created to keep the public
at home during the installation of 5G towers worldwide. The main 5G narrative
argues that a lack of research on 5G means that any of these claims could be the
truth; that same lack of research, however, is what prevents the narratives from
proving their cause/effect relationship.

Establishing and contesting epistemic authority

COVID-19 conspiracy narratives use a mix of methods to establish
epistemic authority and challenge the information being provided by mainstream
media sources. To be considered knowledge, the information requires trustworthy
evidence; because conspiracies often lack solid evidence to support their
narratives, the stories rely on motifs that establish reliability and professionalism.

The conspiracies often lack peer-reviewed evidence to support their claims of cause and effect. In order to combat this "misinformed" narrative, conspiracies utilize a mix of "professional" media content and reliable expert opinions to establish their claims. They can also garner support and authority status by exploiting mainstream media attacks on their figureheads. This combination allows them to gain sympathy from the public, while also appearing as reliable as mainstream forms of knowledge production.

The lack of "evidence" is the primary epistemic flaw found in most conspiracy narratives. Characters in the narrative cite "enormous evidence" that supports their arguments, but often cannot present said evidence out of fear of retaliation from a higher power (CNN, 3). Eye-witness testimonies are few and far between, and often just speculation. In the Vox interview with 5G conspiracists, one anonymous woman based her knowledge on pure coincidence:

> "When I was in Florence, I began to feel very ill. There are five new 5g towers–they dug up the streets and laid the fiber optics while everyone was, you know, at home muted. I was surprised they didn't put blindfolds on." (YTB, 1).

Reports that rely on speculative evidence are challenged by mainstream health and science authorities. For example, when pushed by conservative politicians to investigate Wuhan, US intelligence officials challenged their lack of evidence with the testimonies of external scientists who stated "the chances of a lab

accident are very small" (NPR, 1). Though the Wuhan whistleblower achieved a platform through Fox News, her claims were contradicted by an unrelated report from a different Wuhan virologist:

> We also have the word of one of the top virologists at the Wuhan lab, documented in news articles, that she too wondered if the virus could have originated in her lab and then took steps to verify it didn't match any of the viruses they had in culture. (VOX, 2).

In this case, the virologist acknowledged the narrative and took steps to ensure it wasn't true. Other scientists point to an established body of research to challenge the narratives; documents covering the 5G narrative cite epidemiologists who've found no record of a virus traveling over radio waves (TWP, 6). However, conspiracies have adapted to integrate the contradictory literature as cover-up propaganda. This literature and the lack of evidence only convince non-conspiracists that the narratives are untrue. The narratives present the proof as secret, secure information that they can't disclose to the higher powers. Paradoxically, the "truth" of the narrative must be shared with the public, somehow revealing this secret evidence to the world (YTB, 3). In order to convince others of their "truth", COVID-19 conspiracies have adapted motifs from mainstream knowledge production.

Conspiracy narratives are packaged in high-quality media to appear professional and reliable. This includes physical publications, videos, and

websites, as well as the occasional appearance on a local news network. The

Plandemic narrative demonstrates how high-quality editing and cinematography

create a façade of mainstream-level credibility (UST, 5). It and its sequel both

feature dramatic shots of key "experts" and narration detailing the expert's

accomplishments (UST, 3). The color grading dulls the shots, leaving the footage

bland and gray. Audiences are likewise exposed to the dark truth of the

COVID-19 pandemic. In *Plandemic II: Indoctrination*, a clip of Dr. Fauci is

overlaid with a rapid montage of people mindlessly scrolling through their phones

and laptops; the narrator explains that the media they're consuming is designed to

plant "evidence" that promotes the CDC's false pandemic narrative. The audience

is cued to recognize the connection between public health guidance and the

"official" media narrative pushed by mainstream outlets. But *Plandemic'*s media

content isn't just limited to the film and its sequel. Judy Mikovits's 2014 book is

peddled as a "tell-all" about the evils of the NIH (BFN, 5). The pulled Sinclair

interview with Mikovits featured an on-screen graphic reading, "Did Dr. Fauci

create COVID-19?" (VOX, 1). The local news feature could've elevated Mikovits

to being a household name had it been aired, giving her a platform in at least 36

states and Washington D.C. This banned interview joins another banned broadcast

from California, where a doctor made similar claims about the government

exaggerating the virus's severity (FXN, 6). Conspiracy coverage on Fox News has

also operated as a method of verifying the reliability of a narrative; all reports on

the Wuhan narrative are treated as credible news, even without proper evidence to

support their statements (FXN, 4; FXN, 9). Elevating the claims to a mainstream

level gives Wuhan conspiracists a level of epistemic authority that other narratives don't have. However, this contradicts the notion that all mainstream media is out to challenge conspiracies. Either an exception is made when the outlet agrees with the narrative, or Fox News, which has platformed both the Wuhan narrative and some parts of the *Plandemic* narrative, is one of the only exceptions.

Conspiracy narratives gain epistemic credibility when they're promoted by influential figures in society. As characters within the narrative, they normalize the discussion of misinformation in mainstream spaces. Depending on their occupation and role in the public, they can have varying impacts on the story's credibility. Celebrities like John Cusack and Woody Harrelson, who are known for their acting careers and not careers in public health, were regarded with scrutiny from many fans when they promoted the 5G narrative on Instagram and Twitter (BFN, 2; FXN, 8). Though most audiences doubted these claims, media coverage indicated that searches for '5G and COVID' increased after celebrities tweeted about it. Celebrity doctors received more credit from the public; figures like Dr. Christiane Northrup, who'd made guest appearances on *Oprah*, and Dr. Nicole Saphier, a Fox News medical contributor, promoted "several theories" about COVID-19's origins (NYT, 4; VOX, 1). Dr. Northup endorsed *Plandemic* to her Facebook following, giving it credibility from a 'recognizable' health expert. Dr. Saphier has a history of promoting accurate health information, making her claims that COVID-19 could potentially be "man-made in a laboratory" appear credible (VOX, 1).

Because they're already working in an institution centered around knowledge production, members of the mainstream media have the same effect as medical experts. For example, Tucker Carlson's excessive claims that COVID-19 is not as severe as the government makes it seem were the topic of many Fox News articles and videos. Carlson, who also provided the platform for the Wuhan "whistleblower", has argued that misinformation policies are "censorship" and that "the virus just isn't nearly as deadly as we thought" (FXN, 7; FXN, 5). Fox News's multi-platform format allows Carlson to spread misinformation on television, in online articles, and on social media. His comments were almost as widespread as those made by prominent US politicians, who are awarded the most epistemic credit by the public as they are "national leaders". Donald Trump used Twitter to promote the Wuhan lab narrative and push back against the CDC and health authorities (NPR, 1). Likewise, former C.I.A chief Mike Pompeo went onto the ABC program *This Week* to discuss the "enormous evidence" he'd seen about COVID-19 coming from a Wuhan lab (NYT, 6). The guise of dealing with foreign policy gives politicians the credibility to assert conspiracy narratives are true. The data indicates that politicians have more influence than health officials and journalists, pointing to a shift in how social epistemology recognizes authorities. Verified evidence, it seems, no longer matters as much as charisma and personality.

Perhaps the most dangerous technique used by conspiracies to assert epistemic authority is the ability to exploit negative media coverage and turn it into a victimization narrative. Mainstream media coverage often targets the

intelligence and credibility of conspiracists. Conspiracists "have no idea what they're talking about" (BFN, 3). Their narratives are referred to as "fringe theories" and "unfounded" (TWP, 3; CNN, 2). When arguing that the narrative lacks evidence or reason, the educational background of a conspiracist is taken into consideration:

> I included the educational background of these vocal conspiratorialists because no legitimate physician, researcher, engineer or scientist has found any evidence whatsoever that 5G causes, helps spread, or that exposure to 5G signals mimics COVID-19 symptoms. (FXN, 8).

These comments, though meant to reduce the validity of the conspiracies, are twisted into victimization narratives. The negative depiction of narrative "experts" makes them look like the victims of the evil, mainstream-media deep state (CON, 2). *Plandemic* supporters champion Judy Mikovits because she's been a victim of the CDC's censorship attempts; according to Mikovits herself, her "only crime" was asking too many questions (YTB, 3). When her research was removed from a peer-reviewed journal, conspiracists interpreted it as "silencing the truth" (UST, 5). Similarly, social media misinformation policies are attempts at censoring the truth and force conspiracists to find their own safe spaces where they won't be persecuted (TWP, 4). These policies are attacks on free speech and should "concern all journalists" who want to be able to speak their minds (FXN, 5). Finally, the persecution is used as an excuse for why conspiracists aren't able to

provide concrete evidence of their claims. Because publishing life-changing

information could lead to a threat on their life, experts have to lay low and

therefore can't give away too much to the general public (FXN, 4). When their

experts are being persecuted for their knowledge, conspiracists are more

sympathetic to the cause and wary of the dangerous deep state hunting them. This

pathos appeal is one of the strongest tactics used to obtain knowledge production

credibility. If conspiracy information wasn't so earth-shattering, why would

mainstream media do everything it could to discredit it?

6. Understanding COVID-19 Conspiracies in Digital Space

COVID-19 narratives exist in an epistemological limbo; for some, they are fictional stories built with repeated motifs and ideas, while for others, they are true facts, established by both old and new knowledge generation techniques. Either way, conspiracies are still what Russian formalists considered "narratives". When broken down, the COVID-19 conspiracies contain the same motifs and ideas (Louchart & Aylett, 2004). They can only be considered "truth" if they are established with knowledge acquisition techniques. Historically, conspiracies like the German Corpse Factory have utilized journalistic epistemology techniques to establish themselves as "truths" (Van Heekeren, 2019). The COVID-19 conspiracies do this as well, while also utilizing newer techniques that rely on emotional appeal to convince audiences of their arguments. This shift poses a threat to traditional establishments of knowledge production. No longer do epistemic authorities need to actually show evidence, prove their claims, or have prior experience in knowledge production. Institutions of knowledge productions cannot rely on their traditional techniques of "debunking" narratives, either, as the conspiracies have started to adopt mainstream rejection into their stories as a "threat to the truth".

The reproduction and circulation of these conspiracy narratives have played out almost exclusively in digital media spaces. What makes them notable is their ability to adapt to circulation obstacles and turning those challenges into a part of the narrative. COVID-19 misinformation stories have a distinct distribution arc that exists in three stages: the pre-policy phase, the circulation

phase, and the post-policy phase. Understanding this dynamic process can provide insight for combatting conspiracies without pushing them into more selective and harder-to-reach spaces.

Roots of Conspiracies

Each conspiracy is a repackaged assortment of motifs and "truths" from past misinformation stories. The "causes" are taken from older narratives and altered to fit the "effect", the COVID-19 pandemic. The 5G-COVID narrative is an off-shoot of the 5G conspiracy, which itself is a deviation from a larger, technophobic discourse. The first anti-technology knowledge narrative was published in 1978 by investigative journalist Paul Brodeur, who cited ambiguous evidence that radiation frequencies were harmful. His article resurfaced in 2000 when physicist Bill Curry claimed in a presentation for Broward County Schools in Florida that wireless technology was a serious health hazard. Anti-technology conspiracists cited Curry's claims during the SARS and H1N1 pandemics, blaming SARS on 3G technology and H1N1 on 4G networks. In 2019, the technophobic discourse resurfaced after the announcement of 5G technology. By pure coincidence, 5G cellular towers were constructed in Wuhan just a few months before the pandemic began. Connecting 5G to COVID-19 was an easy conclusion for the scared technophobes who wanted to explain the then-unknown virus. These anti-technology narratives take advantage of the public's general lack of scientific knowledge to connect "radiation", a scary term for the ill-informed, to actual, real-life physical harms.

They mostly circulate in anti-technology social groups, such as New Age "health" practitioners and far-right conspiracists. The 5G-COVID connection allows New Age practitioners to make a profit, as the sub-narratives present various COVID-19 cures that are designed to "prevent 5G radiation". The solutions—which don't actually work—prey on the uninformed who are afraid of radiation and don't have experience in the telecommunications industry.

The Wuhan Lab conspiracy relies heavily on xenophobia and nationalistic rhetoric, a core element of past pandemic discourses. It's a direct reproduction of how the SARS outbreak was attributed to Chinese immigrants, a discourse that resulted in an increase in anti-Asian hate crimes (Person et al., 2004). A more recent example of xenophobic misinformation is the linkage between Ebola and West African cultures; this outbreak narrative reinforced the idea that Africa is dirty and impoverished using harmful "othering" language (Millear, 2015). The Wuhan Lab story pins COVID on the Chinese government with racially targeted phrases like "Chinavirus" and "China disease". This viscerally racist discourse has physical and psychological effects on the real world, including an increase in trauma and stress for Asian individuals, violent anti-Asian hate crimes, and the promotion of China as a dirty, backward country (Misra et al., 2020). This narrative uses discourses from medical populism, foraging a division between the United States and China (Lasco, 2020). Pinning the virus on another culture redirects the frustrations Americans might have about their own government. Additionally, the story replicates the "bioweapon" narrative, as it suggested that the virus was either intentionally created as a weapon, or that it was an accident

but used as an attack on the rest of the world. This motif comes from past

pandemic narratives and fictional outbreak media. Shawn Smallman's research on

Zika, for example, highlighted the belief that the virus was intentionally released

in Brazil as either a genetically modified bioweapon, or a New World Order

attack on marginalized women (Smallman, 2018). Some famous pandemic

movies, such as the inaccurate *Outbreak*, present the "bioterrorism" angle as the

cause for a disease. This motif is so common that, during the first few months of

the pandemic, virologists performed extensive research to ensure that COVID-19

was not intentionally created in a lab.

The Plandemic narrative has a complicated history and weaves

anti-vaccination discourses with ancient conspiracy themes. Though it's

technically the newest of the three—*Plandemic* was released in May of 2020—the

story mixes plot points from anti-vaccination narratives with the deep state

concept. "Plandemic" itself is an umbrella title referring to the *Plandemic*

documentary and the larger, anti-CDC narrative that argues COVID-19 is a hoax.

The documentary surrounds Dr. Judy Mikovits's research and role within the

anti-vax community. Anti-vaccination arguments themselves can be traced back

to the polio vaccine, when an unlucky batch led to a mass-infection of children.

Anti-polio vaccine groups capitalized on this instance and began to argue against

vaccines well before Andrew Wakefield published his paper on MMR and autism.

Wakefield's story parallels Dr. Mikovits'; his MMR research was deemed

"invalid" and Wakefield was gracefully ejected from the scientific community.

This victimization turned him into an anti-vaccination martyr who was silenced

before he could get the truth out. Like Wakefield, it was Dr. Mikovits's banishment from the scientific community that made her popular amongst anti-vaxxers. She cites her personal experiences with Dr. Fauci and the CDC as evidence that she's telling the truth—though, according to one of the documents in my analysis, these encounters didn't actually happen. The second Plandemic storyline builds on Mikovits's claims about the CDC and other past conspiracies about "Big Pharma". This narrative was expanded upon in *Plandemic II: Indoctrination*. It argues that the deep state is profiting off of vaccine production. This story surfaces at least once every pandemic. Both Zika and H1N1 were at one point blamed on Bill Gates, due to his involvement in public health promotion (Smallman, 2015; Smallman, 2018). The media-CDC-Big Pharma deep state has discursive roots in anti-Semitic ideology, which links Plandemic back to QAnon, creating an imbalance of left-wing and right-wing audiences. The QAnon motif appeals to the far right, while concerns about vaccine hesitancy attracts pockets of left-wing New Age groups.

The components of COVID-19 conspiracies are mere recreations of past healthcare misinformation stories. They use complex scientific concepts to scare vulnerable populations and weaponize "othering" tactics to provide a villain responsible for the virus. The cause/effect relationship of each narrative changes slightly to fit the current pandemic. Finally, the narratives borrow discourses from medical populism to make polarizing claims about the healthcare crisis. In summary, the conspiracy narratives alone are not remarkable. What distinguishes them from past pandemic discourses is how the narratives interact with external

characters—such as the media and digital spaces—to expand upon and justify their epistemic claims.

Narrative reproduction in the media

The interaction between mainstream media and conspiracies has two key effects on narrative circulation and credibility. Understanding how these themes arose and affect the narratives can help guide future recommendations for misinformation prevention. The first effect addresses mainstream justification of conspiracies, which provides the narratives with epistemic approval from established knowledge authorities. The second is the increased circulation, which is particularly harmful in areas with limited access to accurate news information.

Affirming mainstream coverage of conspiracy presents two issues for public health: it provides credibility to an otherwise not credible story, and it circulates the misinformation through spaces that might not have encountered it otherwise. Journalists are established information authorities, whose jobs are to provide accurate and credible information (Ekström & Westlund, 2017). They are trained in discerning truth from fiction. Though the fragmentation of mainstream media has led to higher levels of scrutiny, journalists are generally recognized as truth-tellers by the American public. Audiences might reject news institutions that don't present information that aligns with their perceived political stance, but they will still rely on the outlets that regularly confirm their beliefs (Mancini, 2013, p. 49). Therefore, news spaces that present conspiracies as truths are granting the misinformation the same credibility as knowledge that is factually correct. If I am

a regular Sean Hannity viewer, and he says that the virus is being blown out of proportion, I might believe him over a CNN report that says otherwise (Bursztyn et al., 2020). The best example of this process is the Wuhan conspiracy, which was heavily promoted by Fox News. Fox produces a wide range of content that includes both digital articles and television media. The data for this thesis includes transcripts and articles from Fox that assert with 100% confidence that COVID-19 was created in the Wuhan Institute of Virology. Viewers who trust Fox as a news source are led to believe that this is the factual origin of the virus.

Airing conspiracies as accurate information leads to increased narrative circulation, the second problem with mainstream coverage. Even if an outlet isn't giving the conspiracy total validation, covering it can still expose unaware audiences to conspiratorial thought. Fox News's coverage of Wuhan and the Sinclair Broadcasting controversy are evidence of this problem. Sinclair owns local access stations across the country. Had the interview with Dr. Mikovits been aired, the company would be responsible for exposing millions of people to *Plandemic* without providing any actual counterarguments. Viewers who take the journalists at their word will share the interview with friends, continuing the circulation cycle. In the case of Fox News, past reports have already indicated that Fox viewers are less likely to adhere to protective guidelines and will encourage others to break quarantine protocol on account of the virus being a hoax (Bursztyn et al., 2020, p. 28). Increased misinformation circulation on local access networks creates a knowledge disparity, providing those who rely on television news with conspiracy-based information. The larger effects of this could include the growing

stereotype that rural and conservative populations are uneducated, as well as real-world ramifications for those who do not adhere to healthcare policies because their news sources told them not to.

Mainstream coverage of conspiracies does more harm than good, as it serves as an epistemic justification for misinformation, as well as increases circulation in areas with little news access. However, not all media coverage is entirely positive; the effects of negative conspiracy coverage will be covered in the next section, as they're associated with the victim motif utilized by narratives to garner emotional support.

Establishing epistemic authority

While conspiracy narratives use a mix of methods to assert epistemic authority, the two most important strategies are either derived from mainstream journalism or a result of media coverage. Eye-witness and expert testimonies are a primary method of asserting knowledge authority and can make up for the lack of physical evidence (Godler et al., 2020). The testimonies sometimes fall into the victimization strategy, which implores audiences to believe a narrative because it's being silenced by the powerful elite.

In news media spaces, the eye-witness testimony is a primary method of establishing that an event occurred and should be believed. Conspiracies, as a sort of information narrative, use testimonies from "witnesses" and experts to assert their knowledge claims. These testimonies are vital in digital space because they provide human confirmation that a narrative is true, even in environments where

images and videos can be doctored (Thomson et al., 2020). The Plandemic and Wuhan narratives utilized expert testimonies as evidence of their claims, while the 5G narrative included eye-witness statements based on coincidence or speculation. *Plandemic* relied on disgraced medical experts to relay its message, while the Wuhan narrative relied on claims from security officials who were "looking into the possibility" of the virus's lab origins. The 5G-COVID testimonies came from civilians—normal people—who'd noticed that 5G cell towers were constructed right before the pandemic hit their area. They also appeared online as celebrity endorsements from actors and musicians, who encouraged their audiences to look into 5G's harmful side-effects. These testimonies don't need evidence to be convincing; as news consumers, audiences are trained to understand firsthand accounts as accurate statements because the witnesses were "there when it happened" (Usher, 2020). Expert reports work the same way, as they're testimonies from someone with extensive experience in the scientific field. By utilizing this established tactic in journalism, conspiracies can trick audiences into believing they're true—even if it's only for a short period of time.

A secondary and related technique is the employment of a victim motif. Within conspiracies, many experts or witnesses are granted that level of credibility because they were being "silenced" by a higher power. Media coverage of conspiracies is a large part of this motif, as some coverage makes a mockery of the misinformation. Mainstream outlets use language such as "baseless", "factually incorrect", and "filled with nonsense" to describe conspiracies. In turn,

the conspiracies point to this discourse as an example of harassment. Anyone who believes in a narrative is being attacked by the "media deep state" for their beliefs, and therefore should not trust what the mainstream is telling them. Not only does this turn average news consumers against actual knowledge institutions, but it also discredits public health authorities who want to prevent negative health behaviors. Victimization also indicates that the "authority" in question was correct about their assumption and is being hunted for trying to expose the truth. Dr. Mikovits, for example, is considered a healthcare authority because her "controversial" paper was pulled for getting too close to the truth about vaccines. Her history as a virologist suggests that she has the training to understand how vaccines work. A Wuhan virologist interviewed by Tucker Carlson was being suppressed by the Chinese government, and feared that she'd be killed if she exposed the truth of COVID's origins to the world. Though the victim motif may not work for everyone, it presents a particular appeal to anyone who's felt attacked by a mainstream authority for having "unpopular" beliefs. The truth *is* out there. The deep state controlling the country just doesn't want you to figure it out.

These two methods of establishing epistemic credibility are products of the relationship between misinformation and information. The meaning of a narrative is understood as a product of its relationship with other stories and ideas; this means that conspiracies can either take on the appearance of a knowledge narrative by using traditional methods of credibility, or use negative coverage as a plot obstacle. The latter strategy indicates that mainstream attempts at debunking

conspiracies must change their methodology or risk continuing the victim complex makes misinformation narratives attractive.

Digital infrastructures

The final component of COVID-19 narrative production and circulation comes from its relationship with digital spaces and infrastructures, particularly social media platforms. Each narrative spread through a distinct, three-stage process. The first stage, titled "pre-policy" in this research, is where the narrative adjusts to present infrastructures in digital space. The "circulation" phase follows the narrative as it flows from private social media spaces to mainstream media outlets. Finally, the "post-policy" phase occurs when the narrative adapts to obstacles in circulation—namely misinformation policies—to create new selective spaces.

The "pre-policy" phase took place early in the pandemic, before social networks established misinformation policies to try and combat conspiracy sharing. During this phase, the conspiracies were still developing their plots and events, and utilized flaws in social media algorithms to reach new audiences. Prior literature identifies Twitter and Facebook as prime spaces for misinformation sharing. Facebook's private groups allowed users to select who and what they wanted to engage with, building digital echo chambers for conspiracy groups (Seymour, 2015). Twitter's rapid, publicly accessible posting format lacked a fact-checking process, allowing for widespread misinformation sharing (Forati & Ghose, 2020; Bridgman et al., 2020). Both of these

platforms—as well as the video-sharing site YouTube—had algorithms that suggested "news" based on previous searches and clicks. The AI is operating on the same basis as selective exposure theory: it learns to circulate misinformation content to users who fit conspiracy demographics, or individuals who clicked on a misinformation article anyway would then get suggested similar content (Iyngar, 2009). In the media, selective exposure means that some outlets target their content towards established demographics. Fox News anchors promoting the Wuhan narrative to Republicans is a relevant example, as most politicians who supported Wuhan were conservative. The results of this research indicate that selective exposure theory applies to digital algorithms as well, and plays a main role in early misinformation circulation.

The narrative circulation phase occurred in three steps. First, the narrative would need alternative media content, like YouTube videos or blog posts, explaining how the story worked. These pieces would be shared by individual users, as well as AI trained to circulate content to users it predicts are part of the conspiracy network. This process also included bot accounts that were programmed to rapidly produce and circulate misinformation ideas online. Conspiracy media had titles such as "Exclusive content" and "Watch this NOW", which signaled to the audience that the information enclosed was important and time-sensitive. This led to the second step, where consumers who believed the media shared it across groups and platforms. Thanks to the ease of screenshotting and sharing technologies, one person could disperse a narrative across multiple spaces. Eventually, there would be a "turn" towards the mainstream. This turn

could be a celebrity endorsement or an event that cites the narrative as inspiration. All three narratives circulated in this fashion, with the distribution of the first *Plandemic* documentary being the best example. The day it was released, it was shared to a QAnon Facebook group, and from there shared to several far-right pages. It trickled down from more extreme conspiracy groups to neutral conservative circles that were already frustrated with COVID-19 lockdowns and protocols. The "turn" came three days after its release, when multiple social media spaces made headlines for removing it from their platforms. Individuals who hadn't heard of *Plandemic* could go look it up—by that point, it was moved to an external website—and expose themselves to the story. It needs to be noted that mass-removal did not stop the circulation of *Plandemic*. Its shift to selective spaces online is representative of the third narrative stage, defined here as "post-policy".

The post-policy stage occurs after the narrative's initial circulation, when most platforms have implemented new rules or policies in an attempt to remove the story. COVID-19 conspiracies are the first modern misinformation narratives to induce such a widespread policy reform. Website employees acted as authorities on what was and wasn't accurate information; their algorithms were then coded to detect and suppress conspiracy narratives based on their conceptions of misinformation. The new misinformation policies inhibit conspiracies from circulating in specific spaces, forcing the narratives to move to new platforms. This has led to new selective spaces online. Though *Plandemic* was removed from major streaming sites, conspiracists built their own websites to

host the documentary and its sequel. The Stop 5G UK website provides resources and networking options for 5G conspiracists. Like a Facebook group, the webpage's administrative actors have the ability to display whatever content they want. But unlike the social media sites, Stop 5G UK is not bound by an external actor that can monitor information for "truth". This result of the post-policy phase indicates that conspiracy narratives can lead to the construction of new selective digital spaces. Conspiracy consumers will migrate away from mainstream sites to discuss the stories in selective spaces, further polarizing the relationship between "alternative" news and mainstream journalism.

COVID-19 conspiracies thrive in digital spaces, even those that try to limit the spread of misinformation through algorithms and policies. Attempts at stopping the narratives from circulating were met with a quick shift to new platforms, allowing conspiracists to participate in misinformation echo chambers. This should be a reason for concern. If the stories are able to adapt to and move around obstacles, how can they be effectively silenced? Is "silencing" a narrative the best way to go about removing it from pandemic discourses? The results of this research indicate that the traditional methods of discrediting conspiracies are no longer usable. However, conspiracies and misinformation still present a danger to public health and should not be left to circulate online. Media authorities and digital infrastructures alike need to shift their strategies or let the narratives continue to cause havoc, online and in the real world.

7. Conclusion

As the COVID-19 pandemic enters its second year, conspiracy narratives continue to run rampant. The increased acceptance of misinformation presents a troubling obstacle for vaccine distribution and herd immunity, as well as a physical threat to marginalized groups that are incorrectly identified as the cause of the virus. Visible effects of believing these narratives have already started to unfold; 2020 had the most recorded anti-Asian hate crimes in the last twenty years and increased the psychological stress for Asian families across the country. Every new vaccine is met with doubts about its safety and concerns about being "rushed" to meet a quota. Even the 5G narrative, which some media outlets painted as comedically stupid, has resulted in arson and property damage around the world. What is most concerning is the co-circulation of conspiracy narratives and medical populist language. Othering rhetoric, simplification of complex problems, and presentation of non-medical authorities as pandemic experts are all motifs pushed by Trump and Bolsonaro during their catastrophic attempts at COVID-19 management. Accepting and reproducing conspiracies as truth means accepting the medical populist ideas that have led to low social distancing compliance and high mortality rates.

When I return to the question initially posed in my introduction, I am torn. At first glance, it is easy to blame all of this on QAnon or conservative mouthpieces like Tucker Carlson for the spread of misinformation. However, a deeper look into the big "how's"—how we got here, how people buy into

conspiracies, and how to move on—requires an inward look at the larger spaces and media structures in place.

COVID-19 conspiracies are versatile and enduring narratives that turn obstacles to circulation into events within their story. They form out of fear and confusion as simple answers to complex—and, quite frankly, horrifying—questions. Conspiracies take advantage of everyday people who don't understand complex radiation science, who already have limited news resources, and provide them with a simple yet dangerous threat to direct their fear towards. In digital space, it is much easier for some to share an Alex Jones video or *Plandemic* than an epidemiological study. When the structures in place penalize sharing misinformation, those who believe in a narrative will simply move to a space where they feel like they have free speech. This amplifies the effects of media fragmentation, as conspiracists will start seeking out niche outlets that exclusively publish conspiratorial rhetoric. The treatment of conspiracies in most mainstream media only aids this isolation, as outlets address misinformation stories as ridiculous, uneducated jokes. Conspiracists pushed farther into the fringe of the internet, and closer to committing dangerous acts.

This is not to say we need to feel bad for people who dump vaccines out of fear of "5G trackers", or those who physically harm others out of discrimination and rage. Rather, these conclusions indicate that we need to re-evaluate our methods of dispelling misinformation. Conspiracy narratives are taking on a life of their own; they're smarter—or smart enough to get around traditional

obstacles. Digital spaces, both social media and news media, need to become smarter too.

Moving forward, it's also necessary for geographers to continue investigating the digital as a geographic space. Digital spaces are environments that mediate communication and information sharing. They change social interactions by providing denizens of the digital with rapid, international spaces. This research, however, indicates that the digital is not just a geographic environment. Actors like AI and GIS software, which are part of the digital, directly impact knowledge communication and production. The digital is a conduit of communication, as well as a producer. Based on the role digital spaces played in spreading COVID-19 misinformation, as well as the international reach the digital has, it is necessary to recognize the digital as both a space and a geographic actor in future geographic literature.

The focus on epistemic appeals and narrative motifs provides answers to my primary research questions but does not provide concrete guidance for conspiracy prevention. The scope of this thesis was limited by the emphasis on the three unique theories and not COVID-19 misinformation at large. Due to the specific focus, a larger pool of sources was used for a clearer understanding of conspiracy discourses. The number of sources took precedent over quality, leading to some documents providing more reliable information than others. Limiting the sources and increasing the documents from each source would streamline the discursive themes present, making them more consistent and reliable. Additionally, though this thesis alludes to some demographics being

more vulnerable to conspiracies than others, it cannot come to any distinct conclusions about the social makeup of conspiracy networks. Most documents included a left-leaning bias and portrayed any left-wing conspiracist as amicable, while vilifying right-wing conspiracy believers. To account for this issue, future research could identify more neutral sources, or involve qualitative interviews with conspiracists themselves.

This and other studies on conspiracies within social media focus on Facebook and Twitter as common sites for misinformation circulation, where the majority of the "pre-policy" narrative construction took place. To provide a more comprehensive understanding of how conspiracies changed after the introduction of misinformation policies, future research could study the role of selective spaces, third-party hosting sites, and less-regulated social media platforms in misinformation circulation. Additionally, future research on prevention strategies should take a qualitative approach, working with former conspiracists to understand what or how changed their understanding of conspiracy narratives. Just as identifying motifs within conspiracy narratives helps us understand why people believe misinformation, isolating the events that ended a narrative can provide solutions for permanently dispelling harmful conspiracies.

8. References

Adams, P.C. (2016). Geographies of media and communication I: Metaphysics of

encounter. *Progress in Human Geography, 41*(3), 1-10. DOI:

10.1177/0309132516628254

Adams, P.C., & Jansson, A. (2012). Communication Geography: A bridge

between disciplines. *Communication Theory, 22,* 299-318.

doi:10.1111/j.1468-2885.2012.01406.x

Ahlers, D. (2006). News consumption and the new electronic media.

Press/Politics, 11(1), 29-52. DOI: 10.1177/1081180X05284317

Alvarez, L. (2020, December 20). Opinion: Even by Florida standards, Gov. Ron

DeSantis is a covid-19 catastrophe. *The Washington Post.*

https://www.washingtonpost.com/opinions/2020/12/21/ron-desantis-florid

a-covid-19/

Ash, J., Kitchin, R., & Leszynski, A. (2016). Digital turn, digital geographies?

Progress in Human Geography, 42(1), 25-43. DOI:

10.1177/0309132516664800

Baum, M.A., & Groeling, T. (2008). New media and the polarization of American

political discourse. *Political Communication, 25*(4), 345-265. DOI:

10.1080/10584600802426965

Berg, L. (2009). Discourse Analysis. In R. Kitchin and N. Thrift (Eds.), *The

International Encyclopedia of Human Geography* (pp. 215-221). Elsevier

Publishing.

Bergmann, E. (2020). Populism and the politics of misinformation. *Safundi,*

    21(3), 251-265. DOI: 10.1080/17533171.2020.1783086

Bødker, H. (2014). Journalism as cultures of circulation. *Digital Journalism, 3*(1),

    101-115. DOI: 10.1080/21670811.2014.928106

Bridgman, A., Merkley, E., Loewen, P.J., Owen, T., Ruths, D., Teichman, L., &

    Zhilin, O. (2020). The causes and consequences of COVID-19

    misperceptions: Understanding the role of news and social media. *The*

    Harvard Kennedy School Misinformation Review, 1, 1-18.

    https://doi.org/10.37016/mr-2020-028

Bursztyn, L., Rao, A., Roth, C., & Yanagizawa-Drott, D. (2020). Misinformation

    during a pandemic. *University of Chicago.*

Carlson, M. (2020). Journalistic epistemology and digital news circulation:

Infrastructure,

    circulation practices, epistemic contests. *New Media & Society, 22*(2),

    230-246. doi: 10.1177/1461444819856921

Carter, E. (2015). Making the Blue Zones: Neoliberalism and nudges in public

    health promotion. *Social Science & Medicine, 133*, 374-382.

CDC (2020a, October 19). *Duration of isolation & precautions for adults.* Centers

    for Disease Control.

    https://www.cdc.gov/coronavirus/2019-ncov/hcp/duration-isolation.html

CDC (2020b, December 20). *Symptoms of Coronavirus.* Centers for Disease

    Control.

https://www.cdc.gov/coronavirus/2019-ncov/symptoms-testing/symptoms.html

CDC (2021, January 29). *Daily updates of totals by week and state*. Centers for Disease Control. https://www.cdc.gov/nchs/nvss/vsrr/covid19/index.htm

Chew, C. & Eysenbach, G. (2010). Pandemics in the age of Twitter: Content Analysis of Tweets during the 2009 H1N1 Outbreak. *PloS ONE, 5*(11), 1-13.

Dean, J. (1998*). Aliens in America: Conspiracy cultures from outerspace to cyberspace.* Cornell University Press.

Dewan, S., & Nolan, K. (2021, January 4). Pharmacist accused of tampering with vaccine was conspiracy theorist, police say. *The New York Times.* https://www.nytimes.com/2021/01/04/us/pharmacist-accused-of-tampering -with-vaccine-was-conspiracy-theorist-police-say.html

Dubois, E., & Blank, G. (2018). The echo chamber is overstated: the moderating effect of political interest and diverse media. *Information, Communication, & Society, 21*(5), 729-745. DOI: 10.1080/1369118X.2018.1428656

Ekström, M., Lewis, S.C., & Westlund, O. (2020). Epistemologies of digital journalism and the study of misinformation. *New Media & Society, 22*(2), 205-212. DOI: 10.1177/1461444819856914

Elwood, S. & Leszczynski, A. (2013). New spatial media, new knowledge politics. *Transactions of the Institute of British Geographers, 38,* 544-559. DOI: 10.1111/j.1475-5661.2012.00543.x

Elliot, P. (2021, January 28). Why Republicans can't win on QAnon-supporting

    Marjorie Taylor Greene. *Time Magazine.*

    https://time.com/5934133/republicans-qanon-marjorie-taylor-greene/

Fox, M. (2020, July 2). Why is Brazil's Bolsonaro promoting hydroxychloroquine

    despite the science? *The World.*

    https://www.pri.org/stories/2020-07-22/why-brazils-bolsonaro-peddling-h

    ydroxychloroquine-despite-science

Forati, A.M., & Ghose, R. (2020). Spatial analysis of disinformation in

    COVID-19 related tweets. *Preprints.* doi:

    10.20944/preprints202009.0213.v1

Foucault, M. (2010). The History of Sexuality. In V. Leitch (Ed.), *The Norton*

    Anthology of Theory and Criticism (pp. 1502-1521). Norton & Company.

    (Original work published 1976).

Godler, Y., Reich, Z., & Miller, B. (2020). Social epistemology as a new paradigm

    for journalism and media studies. *New Media & Society, 22*(2), 213-229.

    DOI: 10.1177/1461444819856922

Graham, S. (1998). The end of geography or the explosion of place?

    Conceptualizing space, place and information technology. *Progress in*

    Human Geography, 22(2), 165-185.

    https://doi.org/10.1191/030913298671334137

Haddad, M. (2021, February 2). Mapping coronavirus anti-lockdown protests

    around the world. *Aljazeera.*

https://www.aljazeera.com/news/2021/2/2/mapping-coronavirus-anti-lock down-protests-around-the-world

Hayes, A., Singer, J., and Ceppos, J. (2007). Shifting roles, endearing values: The credible journalist in a digital age. *Journal of Mass Media Ethics, 22*(4), 262-279. DOI: 10.1080/0890052701583545

Iyengar, S., & Hahn, K.S. (2009). Red media, blue media: Evidence of ideological selectivity in media use. *Journal of Communication, 59*(1), 19-39. DOI: 10.111/j.1460-2466.2008.01402.x

Jang, K., & Baek, Y. (2018). When information from public health officials is untrustworthy: The use of online news, interpersonal networks, and social media during the MERS outbreak in South Korea. *Health Communication, 34*(9), 991-998. DOI: 10.1080/10410236.2018.1449552

Jansson, A. (2013). Mediatization and social space: Reconstructing mediatization for the transmedia age. *Communication Theory, 23*(3)*,* 279-296. DOI: 10.111/comt.12015

Johnson, M., & McLean, E. (2020). Discourse Analysis. In A. Kobayashi (Ed.), *International Encyclopedia of Human Geography* (pp. 377-383). Elsevier Ltd. https://doi.org/10.1016/B978-0-08-102295-5.10814-5

Joye, S. (2010). News discourse on distant suffering: A critical discourse analysis of the 2003 SARS outbreak. *Discourse & Society, 21*(5), 586-601. DOI: 10.1177/0957926510373988

Kammer, A. (2013). The mediazation of journalism. *MedieKultur, 54,* 141-158. DOI: 10.7146/mediekultur.v29i54.17385

Kaur, H. (2021, February 13). As attacks against Asian Americans spike,

   advocates call for action to protect communities. *CNN*.

   https://www.cnn.com/2021/02/13/us/sian-american-attacks-covid-19-hate-

   trnd/index.html

Kelion, L. (2020, April 14). Coronavirus: 20 suspected phone mast attacks over

   Easter. *BBC News*. https://www.bbc.com/news/technology-52281315

Kellerman, A. (2016). Image spaces and the geography of Internet screen-space.

   GeoJournal, 81(4), 503-517. https://www.jstor.org/stable/44076421

Kendal, E. (2019). Public health crises in popular media: how viral outbreak films

   affect the public's health literacy. *Medical Humanities*. DOI:

   10.1136/medhum-2018-011446

Kitchin, R., Linehan, D., O'Callaghan, C., & Lawton, P. (2013). Public

   geographies through social media. *Dialogues in Human Geography, 3*(1),

   56-72. DOI: 10.1177/2043820613486432

Lasco, G. (2020). Medical populism and the COVID-19 pandemic. *Global Public

   Health, 15*(10), 1417-1429.

   https://doi.org/10.1080/17441692.2020.1807581

Lasora, D.L., Lewis, S.C., & Holton, A. (2012). Normalizing Twitter: Journalism

   practice in an emerging communication space. *Journalism Studies, 13*(1),

   19-36. DOI: 10.1080/1461670X.2011.571825

Lawrence, J., Kearns, R., Park, J., Bryder, L., & Worth, H. (2008). Discourses of

disease:

Representations of tuberculosis within New Zealand newspapers

2002-2004. *Social Science & Medicine, 66,* 727-739.

doi:10.1016/j.socscimed.2007.10.015

Louchart, S., & Aylett, R. (2004). Narrative theory and emergent interactive

narrative. *International Journal Continuing Engineering Education and

Lifelong Learning, 14*(6), 506-518.

Mancini, P. (2013). Media fragmentation, party system, and democracy. *The

International Journal of Press/Politics, 18*(1), 43-60. DOI:

10.1177/1940161212458200

Malecki, E.J. (2016). Real people, virtual places, and the spaces in between.

Socio-Economic Planning Services, 58, 3-12. DOI:

10.106/j.seps.2016.10.008

Mancosu, M., & Vegetti, F. (2020). "Is it the message or the messenger?":

Conspiracy endorsement and media sources. *Social Science Computer

Review.*

DOI: 10.1177/0894439320965107

Messing, S., & Westwood, S.J. (2012). Selective exposure in the age of social

media: Endorsements trump partisan source affiliation when selecting

news online. *Communication Research, 41*(8), 1042-1063. DOI:

10.1177/0093650212466406

Millear, A. (2015). Retelling Ebola's Outbreak narrative through media coverage

of the 2014 West African epidemic. *Geography Honors Projects*. Paper

46. https://digitalcommons.macalester.edu/geography_honors/46/

Miller, B., & Record, I. (2017). Responsible epistemic technologies: A social-epistemological analysis of autocompleted web search. *New Media and Society, 19*(12), 1945-1963. DOI: 10.1177/1461444816644805

Misra, S., Lee, P.T.D., Goldman, E., & Yang, L. (2020). Psychological impact of anti-Asian stigma due to the COVID-19 pandemic: A call for research, practice, and policy responses. *Psychological Trauma: Theory, Research, Practice, and Policy, 12*(5), 461-464. http://dx.doi.org/10.1037/tra0000821

New World Encyclopedia (2021). *Russian Formalism*. New World Encyclopedia. https://www.newworldencyclopedia.org/entry/Russian_Formalism

Patel, A. & Jernigan, D.B. (2020). Initial public health response and interim clinical guidance for the 2019 novel coronavirus outbreak – United States, December 31, 2019—February 4, 2020. *MMWR Morb Mortal Weekly Rep, 69*(5), 140-146. http://dx.doi.org/10.15585/mmwr.mm6905el.

Pennycook, G., McPhetres, J., Zhang, Y., & Rand, D.G. (2020). Fighting COVID-19 misinformation on social media: Experimental evidence for a scalable accuracy nudge intervention. *Association for Psychological Science,* 1-11. https://doi.org/10.1177/0956797620939054

Person, B., Sy, F., Holton, K., Govert, B., Liang, A., & the NCID, SARS Community Outreach team. (2004). Fear and stigma: The epidemic within the SARS Outbreak. *Emerging Infectious Diseases, 10*(2), 358-363. doi: 10.3201/eid1002.030750

Robinson, S. (2007). "Someone's gotta be in control here". *Journalism Practice, 1*(3), 305-321. DOI: 10.1080/17512780701504856

Romer, D., & Jamieson, K.H. (2020). Conspiracy theories as barriers to controlling the spread of COVID-19 in the U.S. *Social Science & Medicine, 263,* 1-8. https://doi.org/10.1016/j.socscimed.2020.113356

Rose, G. (2016). Rethinking the geographies of cultural 'objects' through digital technologies: interface, network and friction. *Progress in Human Geography, 40*(3), 334-351. http://dx.doi.org/doi:10.1177/0309132515580493

Said, E.W. (2010). Orientalism. In V. Leitch (Ed.), *The Norton Anthology of Theory and Criticism* (pp. 1866-1888). Norton & Company. (Original work published 1978).

Sanchez, G.R., & Peña, J.M. (2021, January 25). Skepticism and mistrust challenge COVID vaccine uptake for Latinos. *Brookings Institute.* https://www.brookings.edu/blog/how-we-rise/2021/01/25/skepticism-and-mistrust-challenge-covid-vaccine-uptake-for-latinos/

Schwarzenegger, C. (2020). Personal epistemologies of the media: Selective criticality, pragmatic trust, and competence-confidence in navigating media repertoires in the digital age. *New Media & Society, 22*(2), 361-377. https://doi.org/10.1177/1461444819856919

Seymour, B., Getmna, R., Saraf, A., Zhang, L.H., & Kalenderian, E. (2015). When advocacy obscures accuracy online: Digital pandemics of public health misinformation through an antifluoride case study. *American Journal of Public Health, 105*(3), 517-523. https://doi.org/10.2105/AJPH.2014.302437

Shepherd, K. (2020, March 24). A man thought aquarium cleaner with the same

name as the anti-viral drug chloroquine would prevent coronavirus. It

killed him. *The Washington Post.*

https://www.washingtonpost.com/nation/2020/03/24/coronavirus-chloroqu

ine-poisoning-death/

Shklovsky, V. (1990). *Theory of Prose.* (B. Sher, Trans.). Dalkey Archive Press.

(Original work published 1966).

Skoler, M. (2009, September 16). *Why the news media became irrelevant—And*

how social media can help. Neiman Report.

https://niemanreports.org/articles/why-the-news-media-became-irrelevant-

and-how-social-media-can-help/

Smallman. S. (2015). Whom do you trust? Doubt and conspiracy in the 2009

influenza

pandemic. *Journal of International and Global Studies, 6*(2), 1-24.

https://www.lindenwood.edu/files/resources/1-24.pdf

Smallman, S. (2018). Conspiracy theories and the Zika epidemic. *Journal of*

International and Global Studies, 9(2), 1-13.

https://www.lindenwood.edu/files/resources/01-13-conspiracy-theories-an

d-the-zika-epidemic.pdf

Sparke, M., & Anguelov, D. (2020). Contextualising coronavirus geographically.

Transactions of the Institute of British Geographers, 45(3), 497-704. DOI:

10.1111/tran.12389

Stephens, M. (2020). A geospatial infodemic: Mapping Twitter conspiracy

theories of COVID-19. *Dialogues in Human Geography, 10*(2), 276-281.

DOI: 10.1177/2043820620935683

Suh, S. (2020). Non-boundaries of style represented in fashion Instagram: a social

media platform as a digital space-time. *Fashion and Textiles, 7*(33). DOI:

10.1186/s40691-020-00222-9

Thomson, T., Angus, D., Dootson, P., Hurcombe, E., & Smith, A. (2020). Visual

mis/disinformation in journalism and public communications: current

verification practice, challenges, and future opportunities. *Journalism

Practice.* DOI: 10.1080/17512786.2020.1832139

Usher, N. (2020). News cartography and epistemic authority in the era of big data:

Journalists as map-makers, map-users, and map-subjects. *New Media &

Society, 22*(2), 247-263. DOI: 10.1177/1461444819856909

Usher, N., & Ng, Y.M. (2020). Sharing knowledge and "microbubbles":

Epistemic communities and insularity in US political journalism. *Social

Media + Society, 6*(2), 1-13. DOI: 10.1177/205630512096639

Van Heekeren, M. (2019). The curative effect of social media on fake news: A

historical re-evaluation. *Journalism Studies, 21*(3), 306-318. DOI:

10.1080/1461670X.2019.1642136

Vraga, E.K. & Jacobsen, K.H. (2020). Strategies for effective health

communication during the coronavirus pandemic and future emerging

infectious disease events. *World Medical & Health Policy, 12*(3), 233-241.

DOI: 10.1002/wmh3.359

Waitt, G. (2010). Doing Foucauldian Discourse Analysis – Revealing Social

    Realities. In I. Hay (Ed.), Qualitative Research Methods in Human

    Geography (3rd ed., pp. 217-240). Oxford; New York: Oxford University

    Press.

Yong, E. (2020, August 6). *How the Pandemic Defeated America*. The Atlantic.

    https://www.theatlantic.com/magazine/archive/2020/09/coronavirus-ameri

    can-failure/614191/.

Appendix 1: Glossary of Key Terms

Conspiracies: False information narratives that explain a political, social, or economic event as the work of a secret or elite organization.

Digital Space: Space that is either made by, through, or of the digital. Specifically refers to digital technology or media.

Disinformation: False information that was intentionally circulated to disrupt the flow of accurate news.

Epistemology: The study of information and knowledge construction.

Mainstream Media: News sources that produce content in multiple media spaces. Often regarded as epistemic authorities.

Mediated Space: Space that is either made by, through, or of the media.

Medical Populism: A branch of political thought that turns the public against the dominant health establishment.

Misinformation: False information that is spread unintentionally or without the actor knowing it's untrue.

Motifs: Repeated regimes of truth, or ideologies and themes, that occur in narratives.

Narrative: A cause-and-effect set of events that use repeated characters and motifs to communicate an emotional truth.

Appendix 2: Sample Data Citations

Code	Article
BFN, 1	Broderick, R. (2020, April 3). A conspiracy theory that 5G is causing the coronavirus is spreading alongside the pandemic. *Buzzfeed News*. https://www.buzzfeednews.com/article/ryanhatesthis/conspiracy-theory-5g-coronavirus-qanon
BFN, 2	Broderick, R. (2020, April 7). 5G conspiracy theorists are using fears about the coronavirus to make money. *Buzzfeed News*. https://www.buzzfeednews.com/article/ryanhatesthis/coronavirus-5g-conspiracy-profit
BFN, 3	Broderick, R. (2020, April 22). Scientists haven't found proof the coronavirus escaped from a lab in Wuhan. Trump supporters are spreading the rumor anyway. *Buzzfeed News*. https://www.buzzfeednews.com/article/ryanhatesthis/coronavirus-rumors-escape-lab-china-fox-news-trump
BFN, 4	D'Urso, J., & Wickham, A. (2020, March 19). YouTube is letting millions of people watch videos promoting misinformation about the coronavirus. *Buzzfeed News*. https://www.buzzfeed.com/joeydurso/youtube-coronavirus-misinformation
BFN, 5	Lytvynenko, J. (2020, May 7). The "Plandemic" video has exploded online – and it is filled with falsehoods. *Buzzfeed News*.

	https://www.buzzfeednews.com/article/janelytvynenko/coronavirus-plande mic-viral-harmful-fauci-mikovits
BFN, 6	Lytvynenko, J. (2020, August 18). The "Plandemic" sequel is here. We give it zero stars. *Buzzfeed News*. https://www.buzzfeednews.com/article/janelytvynenko/plandemic-sequel-re view
BFN, 7	Strapagiel, L. (2020, May 27). COVID-19 conspiracy theorists have found a new home on TikTok. *Buzzfeed News*. https://www.buzzfeednews.com/article/laurenstrapagiel/pandemic-conspirac y-theorists-disinformation-tiktok
CNN, 1	Campbell, J., Atwood, K., & Perez, E. (2020, April 16). US explores possibility that coronavirus spread started in a Chinese lab, not a market. *CNN Politics*. https://www.cnn.com/2020/04/15/politics/us-intelligence-virus-started-chine se-lab/index.html
CNN, 2	Duffy, C. (2020, June 14). Why conspiracy theorists think 5G is bad for your health and why experts say not to worry. *CNN Business*. https://www.cnn.com/2020/06/14/tech/5g-health-conspiracy-debunked/inde x.html
CNN, 3	Gan, N. (2020, May 4). China pushes back against US claims that coronavirus originated from Wuhan lab. *CNN World*. https://www.cnn.com/2020/05/04/asia/china-us-coronavirus-spat-intl-hnk/in dex.html

CNN, 4	Gan, N. (2020, May 6). The Wuhan lab at the center of the US-China blame game: What we know and what we don't. *CNN World*. https://www.cnn.com/2020/05/06/asia/coronavirus-china-wuhan-lab-origins -explainer-intl-hnk/index.html
CNN, 5	Kaur, H. (2020, April 9). The conspiracy linking 5G to coronavirus just will not die. *CNN Business*. https://www.cnn.com/2020/04/08/tech/5g-coronavirus-conspiracy-theory-tr nd/index.html
CON, 1	Ahmed, W., Downing, J., Tuters, M., & Knight, P. (2020, June 11). Four experts investigate how the 5G coronavirus conspiracy theory began. *The Conversation.* https://theconversation.com/four-experts-investigate-how-the-5g-coronaviru s-conspiracy-theory-began-139137
CON, 2	Cook, j., van der Linden, S., Lewandowsky, S., & Ecker, U. (2020, May 15). Coronavirus, 'Plandemic' and the seven traits of conspiratorial thinking. *The Conversation*. https://theconversation.com/coronavirus-plandemic-and-the-seven-traits-of-conspiratorial-thinking-138483
CON, 3	Crawford, B. (2020, September 15). Coronavirus and conspiracies: how the far right is exploiting the pandemic. *The Conversation*. https://theconversation.com/coronavirus-and-conspiracies-how-the-far-right -is-exploiting-the-pandemic-145968

CON, 4	Destiny, T. (2020, June 2). Conspiracy theories about 5G networks have skyrocketed since COVID-19. *The Conversation*. https://theconversation.com/conspiracy-theories-about-5g-networks-have-skyrocketed-since-covid-19-139374
FXN, 1	Baier, B. & Re, G. (2020, April 15). Sources believe coronavirus outbreak originated as part of China's efforts to compete with US. *Fox News*. https://www.foxnews.com/politics/coronavirus-wuhan-lab-china-compete-us-sources
FXN, 2	Betz, B. (2020, April 9). Coronavirus 5G conspiracy theory debunked: Experts say there's no connection. *Fox News*. https://www.foxnews.com/tech/coronavirus-5g-conspiracy-theory-debunked
FXN, 3	Casiano, L. (2020, April 30). Trump says he's seen evidence suggesting coronavirus emerged from Wuhan Lab, compares WHO to PR agency. *Fox News*. https://www.foxnews.com/politics/trump-coronavirus-wuhan-china-evidence-who-public-relations
FXN, 4	Dorman, S. (2020, September 15). Chinese virologist: China's government 'intentionally' released COVID-19. *Fox News*. https://www.foxnews.com/media/chinese-virologist-government-intentionally-coronavirus
FXN, 5	Flood, B. (2020, April 29). Free speech advocates call YouTube's removal of coronavirus related video 'egregious censorship effort'. *Fox News*.

	https://www.foxnews.com/media/youtube-video-removed-coronavirus-free-speech
FXN, 6	Garcia, V. (2020, April 27). Tucker questions effect of coronavirus lockdown: 'The virus just isn't nearly as deadly as we thought'. *Fox News*. https://www.foxnews.com/media/tucker-carlson-lockdowns-coronavirus-not-as-deadly
FXN, 7	Halon, Y. (2020, April 28). Tucker rips YouTube for pulling 'problematic' coronavirus video: 'Censorship never is about science'. *Fox News*. https://www.foxnews.com/media/tucker-carlson-youtube-coronavirus-censorship-science
FXN, 8	Komando, K. (2020, April 18). The great 5G coronavirus conspiracy. *Fox News*. https://www.foxnews.com/tech/the-great-5g-coronavirus-conspiracy
FXN, 9	Miles, F. (2020, June 4). Ex-MI6 boss says coronavirus likely engineered in Wuhan lab. *Fox News*. https://www.foxnews.com/world/ex-mi6-boss-says-coronavirus-likely-engineered-in-wuhan-lab
NPR, 1	Brumfiel, G. (2020, May 6). As Trump pushes theory of virus origins, some see parallels in lead-up to Iraq War. *National Public Radio*. https://www.npr.org/2020/05/06/851043242/as-trump-pushes-theory-of-virus-origins-some-see-parallels-to-iraq
NPR, 2	Brumfield, G. & Kwong, E. (2020, April 23). Virus researchers cast doubt on theory of coronavirus lab accident. *National Public Radio*.

	https://www.npr.org/sections/goatsandsoda/2020/04/23/841729646/virus-researchers-cast-doubt-on-theory-of-coronavirus-lab-accident
NPR, 3	Langfitt, F. (2020, April 19). 5G conspiracy theories trigger attacks on cellphone towers. *National Public Radio.* https://www.npr.org/2020/04/19/838195056/5g-conspiracy-theories-trigger-attacks-on-cellphone-towers
NPR, 4	Neuman, S. (2020, May 8). Seen 'Plandemic'? We take a close look at the viral conspiracy video's claims. *National Public Radio.* https://www.npr.org/2020/05/08/852451652/seen-plandemic-we-take-a-close-look-at-the-viral-conspiracy-video-s-claims
NYT, 1	Alba, D. (2020, May 9). Virus conspiracists elevate a new champion. *The New York Times*. https://www.nytimes.com/2020/05/09/technology/plandemic-judy-mikovitz-coronavirus-disinformation.html
NYT, 2	Broad, W.J. (2020, July 16). The 5G health hazard that isn't. *The New York Times*. https://www.nytimes.com/2019/07/16/science/5g-cellphones-wireless-cancer.html
NYT, 3	Frenkel, S., Alba, D., & Zhong, R. (2020, March 8). Surge of virus misinformation stumps Facebook and Twitter. *The New York Times.* https://www.nytimes.com/2020/03/08/technology/coronavirus-misinformation-social-media.html

NYT, 4	Frenkel, S., Decker, B., Alba, D. (2020, May 21). How the 'Plandemic' Movie and its Falsehoods spread widely online. *The New York Times*. https://www.nytimes.com/2020/05/20/technology/plandemic-movie-youtube-facebook-coronavirus.html
NYT, 5	Mazzetti, M., Barnes, J.E., Wong, E., & Goldman, A. (2020, April 30). Trump officials are said to press spies to link virus and Wuhan labs. *The New York Times*. https://www.nytimes.com/2020/04/30/us/politics/trump-administration-intelligence-coronavirus-china.html
NYT, 6	Sanger, D.E. (2020, May 3). Pompeo ties coronavirus to China lab, despite spy agencies' uncertainty. *The New York Times*. https://www.nytimes.com/2020/05/03/us/politics/coronavirus-pompeo-wuhan-china-lab.html
NYT, 7	Satariano, A., & Alba, D. (2020, April 10). Burning cell towers, out of baseless fear they spread the virus. *The New York Times*. https://www.nytimes.com/2020/04/10/technology/coronavirus-5g-uk.html
TIM, 1	Bloomberg. (2020, April 20). Top official at Wuhan disease lab denies any link to coronavirus outbreak. *Time*. https://time.com/5824061/wuhan-lab-denies-link-coronavirus-outbreak/
TIM, 2	Perrigo, B. (2020, April 9). How coronavirus fears have amplified a baseless but dangerous 5G conspiracy theory. *Time.* https://time.com/5818574/5g-coronavirus-conspiracy-theory-inaccurate/

TWP, 1	Andrews, T.M. (2020, May 1). Why dangerous conspiracy theories the virus spread so fast—and how they can be stopped. *The Washington Post*. www.washingtonpost.com/technology/2020/05/01/5g-conspiracy-theory-coronavirus-misinformation/
TWP, 2	Andrews, T.M. (2020, May 7). Facebook and other companies are removing viral 'Plandemic' conspiracy video. *The Washington Post*. https://www.washingtonpost.com/technology/2020/05/07/plandemic-youtube-facebook-vimeo-remove/
TWP, 3	Firozi, P. (2020, February 17). Tom Cotton keeps repeating a coronavirus conspiracy theory that was already debunked. *The Washington Post. https://www.washingtonpost.com/politics/2020/02/16/tom-cotton-coronavirus-conspiracy/*
TWP, 4	Jamison, P. (2020, August 31). Infected by doubt: a 26-year-old film editor's descent into coronavirus vaccine conspiracy theories. *The Washington Post*. https://www.washingtonpost.com/dc-md-va/2020/08/31/covid-19-vaccine-conspiracy-theories-public-support/?arc404=true
TWP, 5	Kelly, M., & Cahlan, S. (2020, May 1). Was the new coronavirus accidentally released from a Wuhan lab? It's doubtful. *The Washington Post*. https://www.washingtonpost.com/politics/2020/05/01/was-new-coronavirus-accidentally-released-wuhan-lab-its-doubtful/

TWP, 6	Nakashima, E. (2020, May 13). DHS to advise telecom firms on preventing 5G cell tower attacks linked to coronavirus conspiracy theories. *The Washington Post*. https://www.washingtonpost.com/national-security/dhs-to-advise-telecom-firms-on-preventing-5g-cell-tower-attacks-linked-to-coronavirus-conspiracy-theories/2020/05/13/6aa9eaa6-951f-11ea-82b4-c8db161ff6e5_story.html
TWP, 7	Taylor, A. (2020, January 29). Experts debunk fringe theory linking China's coronavirus to weapons research. *The Washington Post*. https://www.washingtonpost.com/world/2020/01/29/experts-debunk-fringe-theory-linking-chinas-coronavirus-weapons-research/
UST, 1	Brown, M. (2020, April 23). Fact check: 5G technology is not linked to coronavirus. *USA Today*. https://www.usatoday.com/story/news/factcheck/2020/04/23/fact-check-5-g-technology-not-linked-coronavirus/3006152001/
UST, 2	Brown, M. (2020, August 25). Fact check: 'Plandemic' sequel makes false claims about Bill Gates. *USA Today*. https://www.usatoday.com/story/news/factcheck/2020/08/25/fact-check-plandemic-sequel-makes-false-claims-bill-gates/5627223002/
UST, 3	Caldera, C., & Fauzia, M. (2020, August 23). Fact check: 'Plandemic II' alleges false conspiracy theory involving CDC, NIH; pandemic not planned. *USA Today*. https://www.usatoday.com/story/news/factcheck/2020/08/23/fact-check-plandemic-ii-alleges-false-cdc-nih-conspiracy-theory/3408658001/

UST, 4	O'Donnell, B. (2020, March 21). Here's why 5G and coronavirus are not connected. *USA Today*. https://www.usatoday.com/story/tech/columnist/2020/03/21/did-5-g-cause-coronavirus-covid-19-pandemic/2873731001/
UST, 5	Yancey-Bragg, N., & Shannon, J. (2020, May 8). Claim in viral 'Plandemic' video 'could lead to imminent harm', Facebook says. *USA Today*. https://www.usatoday.com/story/tech/2020/05/08/facebook-plandemic-judy-mikovits-shares-false-coronavirus-info/3095471001/
VOX, 1	Aleem, Z. (2020, July 26). Covid-19 conspiracy theories are being fed by institutions meant to inform the public. *Vox*. https://www.vox.com/2020/7/26/21338174/covid-19-conspiracy-theories-fauci-sinclair-plandemic
VOX, 2	Barclay, E. (2020, April 29). Why these scientists still doubt the coronavirus leaked from a Chinese lab. *Vox*. https://www.vox.com/2020/4/23/21226484/wuhan-lab-coronavirus-china
VOX, 3	Heilweil, R. (2020, April 24). How the 5G coronavirus conspiracy theory went from fringe to mainstream. *Vox*. https://www.vox.com/recode/2020/4/24/21231085/coronavirus-5g-conspiracy-theory-covid-facebook-youtube
VOX, 4	Heilweil, R. (2020, May 11). Twitter now labels misleading coronavirus tweets with a misleading label. *Vox*. https://www.vox.com/recode/2020/5/11/21254889/twitter-coronavirus-covid-misinformation-warnings-labels

YTB, 1	Adams, L. [Vice]. (2020, June 24). *Down the 5G & COVID-19 Conspiracy Rabbithole* [Video]. YouTube. https://www.youtube.com/watch?v=zzBLWA-khVg
YTB, 2	Cotton, T. [Senator Tom Cotton]. (2020, February 16). *February 16, 2020: Senator Cotton Joins Sunday Morning Futures with Maria Bartiromo* [Video]. YouTube. https://www.youtube.com/watch?v=ytGIkcCh7T8&feature=emb_title
YTB, 3	n.a. [Success Archive]. (2020, May 10). *"People are Brainwashed by The Big Pharma" – Judy Mikovits Leave You Speechless* [Video]. YouTube. https://www.youtube.com/watch?v=_YgEd-Kq24U