TCSJ
TECHNICAL COMMUNICATION
& SOCIAL JUSTICE

Title: "What Do I Need to Say to Make You Trust Me?": Influences of Competing Permission Structures on COVID-19 Vaccination Decision-Making

Elena Kalodner-Martin, The Ohio State University, kalodner-martin.1@osu.edu

Technical Communication & Social Justice, Vol 3, No. 2 (2025), pp. 123-148

Abstract: The COVID-19 pandemic has transformed digital health communication, particularly on social media, where individuals increasingly engage in public negotiation over vaccination decisions. Drawing from a multi-year study of social media and interview data, this manuscript identifies how four dominant permission structures—vaccination as social responsibility, economic imperative, personal freedom, and method of institutional control—have both facilitated and constrained vaccination decision-making and communication practices. Based on these findings, this manuscript provides actionable strategies for tailoring public health messages to align with audience values, such as community care, economic recovery, or personal autonomy, while avoiding framings that may inadvertently exclude, alienate, or disenfranchise marginalized groups in matters of personal and public health.

Keywords: Permission structures, health communication, social justice, COVID-19, vaccines

Author Bio: Elena Kalodner-Martin is an Assistant Professor of English in the Writing, Rhetoric, and Literacy program at The Ohio State University. Her work investigates how patient-generated medical evidence and expertise influences healthcare outcomes for both individuals and communities. Her work has been published in *Technical Communication*, *Programmatic Perspectives*, *Kairos*, and elsewhere.

Introduction

The rise of digital health communication during the COVID-19 pandemic—especially on social media platforms—has transformed how the public accesses, shares, and engages with information about health, illness, and wellness in our daily lives. With content ranging from do-it-yourself sewing patterns for face masks to debates over the necessity of lockdowns, social media sites have become a critical space for patients, caregivers, providers, and policymakers to share personal experiences, discuss treatment options, interpret evolving public health guidelines, and determine what risk mitigation efforts feel warranted and appropriate. At the same time, much work across technical and professional communication (TPC) has examined how these online responses have amplified concerns about medical racism (Joyner et al., 2023; Mckoy et al., 2020), xenophobia (Batova, 2021), sexism (Kalodner-Martin, 2025), ableism (Breneman & Ghiaciuc, 2021), and other forms of health inequity that disproportionately affect marginalized patient populations (Baniya & Chen, 2021; Edenfield, 2021). This scholarship has been instrumental in demonstrating how digital health communication practices provide a rich space for knowledge-sharing, community-building, and facilitating action against systems of injustice and harm.

And yet, there remains a pressing need to examine the rhetorical strategies that shape public attitudes and behaviors about health and wellness, particularly through the lens of permission structures, or the social, cultural, and political cues that draw on people's existing values to reinforce which beliefs and behaviors are deemed acceptable, encouraged, or necessary (Lambert et al., 2024). Permission structures offer a lens through which we can explore how information and advice circulated both by the general public and medical institutions guide practices like social distancing, masking, isolation periods, and vaccination, often in ways that reflect cultural values, reinforce social norms, and shape perceptions of risk and responsibility. This article focuses specifically on discourses surrounding vaccination, a particularly politicized aspect of the COVID-19 response, and examines how four central permission structures — vaccination as a social responsibility, as an economic imperative, as a tool for institutional control, and as a personal freedom—have both facilitated and constrained vaccination decision-making and communication practices between 2020 and 2025. In what follows, I examine how untangling the explicit and implicit logics of permission structures in a contentious and evolving area of public health reveals the rhetorical strategies that shape health behaviors, exposes the underlying values and biases influencing these strategies, and informs the development of more equitable and effective health communication practices. I conclude with suggestions for how technical and health communicators can not only recognize and respond to permission structures that reinforce inequity, but also actively redesign communication strategies to advance more just, inclusive, and community-centered approaches to public health.

Literature Review

Digital Health Communication

Many disciplines have examined how social media platforms and other spaces for user-generated content shape, enhance, and constrain the ways that individuals engage with medical

information, connect with others, and navigate complex and multilayered healthcare systems. Research in this area has been done extensively in the fields of public health (Chen & Wang, 2021; Moorhead et al., 2013), narrative medicine (Chiang, 2016), medical humanities (George & Dellasega, 2011), the rhetoric of health and medicine (Melonçon & Scott, 2018) and more to examine how these spaces and discourses can improve health education (Cheston et al., 2013), health literacies and information access (Berkman et al., 2011), and facilitate behavior modifications (Yang, 2017) and community-building efforts (Bakke, 2018; Hensley Owens, 2009).

The onset of the COVID-19 pandemic revealed an additional layer of complexity for studying digital health communication. Research has shown that social media platforms like Facebook, Twitter/X, and Instagram rapidly became essential channels for medical institutions to produce and disseminate critical public health information, including guidelines on masking, social distancing, and vaccination to local and global audiences (Basch et al., 2022). These digital arenas also became places for the general public to compile and share information about outbreak detection (Shi et al., 2020), symptom management and recovery (Bukar et al., 2020), and resource availability (Aggarwal et al., 2020) in the United States and worldwide. Online communities and enclaves also formed as spaces for community building and social support, contributing to improved mental and physical health outcomes in a time marked by social isolation and uncertainty (Abbas et al., 2021). And, as Frith (2021) notes in his introduction to the "Communicating in Times of Crisis" special issue, much early research at the intersections of TPC and COVID-19 examined how these interventions and practices are especially needed to address the needs of those already most vulnerable to institutional silencing, dismissal, and harm, and who have thus been hit hardest — medically, socially, economically, and politically — by this public health crisis.

With that, the COVID-19 pandemic has also exposed significant challenges associated with digital health communication, particularly the spread of misinformation (Doan, 2020; Koerber, 2020). False claims about COVID-19 origins, vaccine safety, and unproven treatments proliferated on social media, fueled by algorithmic amplification (Cinelli et al., 2020), xenophobia (Batova, 2021), and racism (He et al., 2021). Additionally, early data visualizations — meant to quickly convey key findings on transmission, infection rates, risk mitigation strategies, and patient demographic data — were often misleading or missing altogether, decreasing public uptake of critical health information (Hartzog, 2025) and compounding existing patterns of patient marginalization and silencing (Atherton, 2020). At the same time, the heavy reliance on social media to disseminate real-time updates and data further deepened health disparities among vulnerable populations, particularly those in rural areas and with limited access to digital technologies (Brock Carlson & Gouge, 2020). The integration of social media and biometric technologies for contact tracing amplified concerns about data privacy and surveillance, while also contributing to the racialization of COVID-19's origins (French & Monahan, 2020). And now, more than five years since the onset of the COVID-19 pandemic, the rollback of fact-checking policies on platforms like X, Facebook, and Instagram introduces new vulnerabilities for digital health communication, posing a significant threat to ongoing disease prevention efforts amid a still-unfolding public health crisis. Understanding how weakened platform accountability and policy changes shape the spread of misinformation and discriminatory speech is crucial to unpacking how public trust in health communication is

eroded, how health inequities are exacerbated, and how disease prevention efforts are undermined.

Vaccination Hesitancy

As this article is an analysis of the influence of permission structures on vaccination decision-making, it is important to note the existing body of interdisciplinary scholarship on vaccine hesitancy. This term is defined by the World Health Organization (WHO) as a "delay in acceptance or refusal of vaccines despite availability of vaccination services," and represents an ongoing barrier to achieving high vaccination coverage globally (WHO, 2015). Vaccine hesitancy is influenced by a complex interplay of factors, including trust in healthcare systems, sociocultural norms, and individual perceptions of risk. Drawing from the SAGE Working Group on Vaccine Hesitancy's model for vaccine hesitancy, Betsch et al. (2018) proposed the 5C model, identifying confidence (trust in vaccine safety and efficacy), complacency (perceived need for vaccination), convenience (accessibility of vaccines), calculation (desire and ability to conduct research on vaccination information and risk), and collective response (tendency to see vaccination as a social issue or related to social norms) as central determinants of vaccination behavior. This model posits that vaccine hesitancy often arises because one or more of these central areas is missing.

Misinformation circulating online has significantly influenced how the five determinants of vaccination behavior are perceived, challenged, or dismissed by the public. Although vaccine hesitancy is not a new phenomenon, social media platforms have amplified related discourses, magnifying fears and spreading false narratives about vaccine safety (Brunson & Sobo, 2017; Kata, 2012) and effectiveness (Burki, 2019). Furthermore, even when research and public discourse presented a nuanced understanding of vaccines and their benefits and risks, the volume and complexity of information still posed challenges. Islam et al. (2020) describe how the COVID-19 "infodemic" created an overwhelming flood of both accurate and inaccurate information, which hindered public health efforts by sowing confusion, leading to cognitive overload, and diminishing interest in conducting further research on risk mitigation, even among populations and regions with historically high vaccination rates.

However, the rise of anti-vaccination and vaccine-hesitant discourse has prompted greater attention to the cultural, socioeconomic, and political factors behind vaccine hesitancy. For example, minority populations in the United States, particularly Black and Indigenous Americans, have demonstrated higher rates of hesitancy likely due to systemic injustices in medical research and ongoing healthcare disparities (Quinn et al., 2019). Additionally, research on parents' vaccination beliefs revealed that cisgender women are often the primary decision-makers surrounding children's vaccination status, making them frequent targets of anti-vaccine campaigns and vaccination-resistant messaging (Attwell et al., 2018). Finally, studies demonstrate that alignment with right-wing ideologies and voting patterns within the United States correspond to increased vaccine hesitancy and resistance, likely due to the prevalence of anti-vaccination political rhetoric by members affiliated with the Trump Administrations (Walter et al., 2023).

As a result, scholarly attention to anti-vaccination and vaccine-hesitant discourse has shifted focus toward the cultural, socioeconomic, and political factors that shape vaccine decision-making. Recent research in this area has explored how vaccination campaigns should avoid focusing solely on discourses of expediency (Vail, 2023) or framings that explicitly or implicitly position vaccine skeptics or dissenters as uninformed or selfish (Campeau, 2023). Charles (2022) also posited a different framing for those who delay or opt out of vaccination, sharing that, within Afro-Barbadian cultures in Barbados, popular connotations of vaccine hesitancy are oversimplified, reductive, and "fail to capture the multiple affects and experiences involved in vaccination decision-making" (p. 7). Taken together, these reveal how discourses surrounding vaccination hesitancy often seek to punish and shame rather than support, contributing to stigma and exploitation while also failing to increase vaccination rates.

What this research also demonstrates is that strategies that emphasize transparency, empathy, and accessibility have been shown to improve vaccine acceptance, particularly amongst demographics who have been subjected to institutional silencing, dismissal, and harm in other areas of public health interventions (MacDonald, 2015). As I explore in this article, permission structures provide a lens for extending our understanding of the layered beliefs shaping vaccination decisions and for developing more inclusive, culturally-responsive messaging for public health interventions. Through this, I also seek to distinguish vaccine *hesitancy,* where someone may be unsure of about vaccinating themselves or others, from *resistance,* which better captures the reluctance to get vaccinated unless specific circumstances are met. Furthermore, I offer an analysis of vaccination *rejection*, which is a decision to active oppose or refuse COVID-19 vaccination altogether.

Methods

This project began, as many do, informally: In December 2020, I was scrolling through my TikTok's For You Page (FYP) and came across a video of Sandra Lindsay, a registered nurse and the Vice President of Public Health Advocacy at Northwell Health in New York City, receiving the first Pfizer COVID vaccine in the United States. I clicked on the comments, where thousands of people expressed enthusiasm for the prospect of mass vaccination in the U.S., while thousands of others shared how Lindsay's decision—as a Black woman, healthcare professional, and administrator—to publicly receive the vaccine as part of an institutional effort to destigmatize COVID-19 vaccination actually heightened their skepticism. From the polarizing nature of the comments, the replies, and the following months' social and political discourse about vaccination across the many social media sites I use in my daily life, I formulated the following questions:

- How do rhetorical strategies on social media influence public attitudes and decision-making about COVID-19 vaccination?
- What roles do permission structures play in shaping public health messaging, and how do they mediate individuals' interpretations and actions regarding vaccination against COVID-19?
- How can permission structures be leveraged to promote equitable and inclusive health outcomes while avoiding the perpetuation of damaging or exclusionary narratives?

Study Design and Rationale

This project used a multi-method qualitative design to examine how permission structures shaped public discourses about COVID-19 vaccination across digital platforms. Four social media platforms—Twitter/X,[1] TikTok, Instagram, and Reddit—were selected for textual corpus collection because they represent the most popular user-generated social media platforms. These platforms also offer a range of interface norms, population demographics, and communication styles, enabling a more diverse and representative sample of digital health communication practices than one platform alone. However, the aim of this study was not to create an exhaustive corpus but to capture a broad, diverse range of public narratives about COVID-19 vaccination decision-making. Therefore, the study employed a purposive sampling approach (Palinkas et al., 2015) combined with strategic random sampling of posts on specific days, allowing for the collection of highly engaged and topically relevant content while managing the volume and feasibility of analysis.

Data Collection

Textual corpus collection occurred between April 2020 and November 2024, spanning the beginning of the COVID-19 pandemic, the critical early vaccination rollout phases, and later booster campaigns. Posts were collected on 26 randomly selected days per calendar year, with at least two sampling days selected per month to ensure temporal distribution across the year. Posts were gathered using keyword searches (such as "COVID vaccine," "vaccination," "vaccinated," "COVID-19," and "coronavirus") across the four platforms. On each selected day, the top ten public posts matching the search terms were collected across all platforms, yielding a total of 260 posts per year (approximately 61-68 posts per platform per year). Interview participants were also invited to share relevant posts during their interviews, which added data to the corpus. Taken together, this process resulted in a total corpus of 1,355 posts, including posts collected through systematic sampling and participant-provided examples.

To be included in the corpus, posts needed to focus explicitly on COVID-19 vaccination decision-making, whether endorsing, questioning, or refusing vaccination. Given the public nature of social media content, the textual corpus data collection was granted IRB exemption. However, in accordance with best practices for ethical digital research (CCCC, 2015), posts explicitly cited in this manuscript were shared with users for approval prior to publication.
To supplement the breadth of the social media posts, I then conducted IRB-approved interviews with users who had publicly posted about their vaccination experiences. Interview recruitment and data collection began in April 2022 and concluded in March 2024. Participants were intentionally recruited based on four criteria: the topical relevance of their posts, the representation of platforms, to reflect a broad range of perspectives on COVID-19 vaccination, and their diverse positionalities across race, disability, class, gender, age, and linguistic background. Of the 25 individuals contacted via standardized direct messaging, 17 agreed to participate. Interviews were conducted via Zoom, lasted approximately 45 minutes, and were transcribed by hand. To support transcript accuracy and ethical engagement, transcripts were shared back with participants for optional edits or additions. All participants were over 18 years

[1] The platform changed its official name from Twitter to X in July 2022.

old, resided in the United States, and were compensated $20 for their time. To protect user identity, participants were given the option of selecting a pseudonym.

Data Analysis

Data were analyzed using an iterative, multi-phase coding process grounded in constructivist grounded theory approaches (Charmaz et al., 2017). The first phase involved open inductive coding of the social media corpus and interview transcripts to identify emerging patterns and rhetorical strategies. In the second phase, deductive coding was applied to explore additional patterns, ensuring that less obvious but meaningful themes were captured. A third phase of abductive coding (Vila-Henninger et al., 2022) was used to link the emergent codes to the concept of permission structures, focusing on how participants made vaccination acceptable, encouraged, or resisted within their communities. As described below, this allowed me to identify the four major thematic categories — vaccination as social responsibility, economic imperative, personal freedom, and method of institutional control — guiding the analysis and to group data within each category into relevant subcodes. In what follows, I explore how participants in this project used these priorities and values to structure their own and others' permission to vaccinate, or in other cases, decline or resist vaccination, for COVID-19.

Vaccination As Social Responsibility

The most dominant category emerging from the data was vaccination as a social responsibility. Rather than relying on clinical safety data or scientific authority alone, permission to get vaccinated for COVID-19 was structured through appeals to shared civic values, such as community care, justice, and mutual obligation. Furthermore, the decision to vaccinate was not described as just a matter of access or individual benefit: it was embedded through the narratives, expectations, and cues that shaped how individuals came to see vaccination as the *moral* course of action. This structure redefines implicitly what counts as legitimate or expected health behavior in public discourse, and in this case, vaccination becomes "permissible" when it aligns with ethical values and principles, emotional and social constructs, and outcomes and impacts (Table 1).

Codes	Subcodes
Abstract Values and Principles	Accessibility Civic duty Collective good Community well-being Health equity Morality Religious obligation Social justice
Emotional and	Compassion

Social Constructs	Empathy Fear reduction Mutual responsibility Social cohesion Solidarity Trust in public health systems
Outcomes and Impacts	Bolstering trust in science Countering misinformation Facilitating informed consent Herd immunity Improving health literacy Preventing outbreaks Protection of vulnerable populations Reducing health disparities Slowing transmission

Table 1. Codes related to COVID-19 vaccination as a social responsibility, drawn from the total corpus (social media posts, n=501; interviews, n=8). Subcodes are alphabetized and are not mutually exclusive.

The range of these codes suggests that, for many social media users, the public health benefits of widespread vaccination—such as preventing outbreaks, slowing transmission, and achieving herd immunity—are closely tied to broader ethical imperatives. Interestingly, these outcomes are framed as especially urgent and necessary because they protect vulnerable or marginalized populations, not just the public at large. This emphasis also highlights how rhetorical framings of vaccination as a social responsibility often serve as an implicit critique of healthcare systems that prioritize the well-being of the privileged while neglecting those most at risk. And yet, this may inadvertently isolate those who are vaccine-hesitant by suggesting that their hesitation stems from moral failing or lack of community care. This "balancing act" is something that Carey, a nurse practitioner and member of the r/COVID-19 subreddit, shared during her interview,

When I talk to people about vaccines, I explain the science, and I emphasize the benefits that I think are most critical and that are well-supported in the research, like lower infection rates and less severe infections. I *hope* what people draw from that is that the science behind vaccines helps us take better care of people, especially those at highest risk… I don't want people to walk away from me thinking that they're a bad person if they don't get vaccinated, but I do want people to feel that they are doing something good for everyone if they do.

Carey's approach illustrates how healthcare professionals can construct a permission structure that encourages vaccination by framing it as an informed, ethical decision rooted in scientific reasoning rather than a moral obligation driven by guilt or coercion. Importantly, her strategy avoids alienating vaccine-hesitant individuals by not equating non-vaccination with moral failure. As she explained, "I welcome [vaccine-hesitant patients] in asking questions and seeing the research… it's not like an affront to my credentials or anything. But I really try to determine what information is going to be most compelling. It's kind of like, what do I need to say to make

you trust me?" By inviting questions, fostering dialogue, and emphasizing the positive social outcomes of vaccination, particularly for high-risk populations, Carey facilitates trust and engagement between provider and patient. Her approach, offering different justifications based on "what seems to be most important to them," emphasizes the rhetorical nature of structuring permission for vaccine-hesitant individuals while still expressing a preference for a particular course of action.

And yet, while some individuals may fully buy in to beliefs of vaccination as a social responsibility, their competing values may complicate their decision-making process. Take, for example, Cait, a community organizer who used her social media platforms to advocate for mass COVID vaccination "as soon as they became available to the public" (Figure 1).

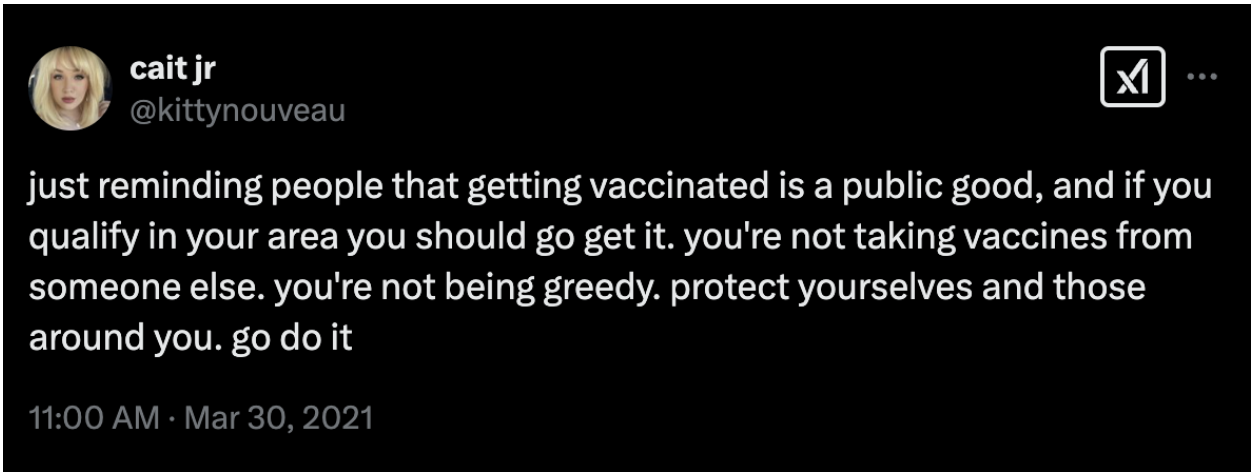

Figure 1. Cait used Twitter/X to advocate for her followers to get vaccinated.

In her interview, Cait shared:

> I do a lot of community organizing work, and community organizing lends itself really naturally to being pro-vaccination. I see it kind of like this: communities organize around injustice and disease is an injustice, so it follows that community organizers and people who care deeply about protecting their communities want folks to get vaccinated. Which is funny, because then I started to see all these posts in early 2021 that was like, "I'm hesitant to get vaccinated right now because there's only so much to go around" or like "I really want a vaccine but I don't want to put myself over others." … It was like being ethical and sensitive to the community needs to the point of being counterintuitive. So this post [Figure 1] was speaking back to that, so when I say, "you're not taking it from someone" or "you're not being greedy," it's giving people this validation, in the language I see a lot of and that really speaks to what I know people care about, that it's okay—that it's really good for you and your community, actually—to go get your shot.

Cait's reflection highlights a key tension within vaccination decision-making: even among those who fully accept the scientific and public health rationale for vaccination, concerns about fairness and equitable distribution can create unexpected forms of hesitancy. Rather than rejecting the vaccine due to skepticism or distrust in medical institutions, some individuals

hesitated because they perceived early vaccine access as a zero-sum game, where getting vaccinated too soon might have meant taking a dose away from someone more vulnerable. This complicates traditional understandings of vaccine hesitancy by demonstrating that, in some cases, reluctance is not rooted in a rejection of scientific evidence but in an ethical dilemma shaped by resource scarcity and an attunement to privilege and risk.

Cait's response to this dilemma offers a different perspective than Carey, where she reframes early vaccination as an act of communal responsibility rather than personal gain by countering misinformation about vaccine *availability,* rather than just clinical safety. By addressing concerns about fairness directly and emphasizing that getting vaccinated is not an act of greed but a contribution to the broader community, Cait validates her audience's ethical concerns while offering a new framework in which individual action aligns with collective well-being. This rhetorical strategy not only reassures hesitant individuals but also positions vaccination as a means of upholding the very values of justice and care that initially gave rise to their hesitation. In doing so, Cait demonstrates that permission structures must be rhetorically adaptive, remaining responsive to changing public discourse, logistical constraints, and the ethical frameworks and information needs that shape how people interpret and act on public health guidance.

Vaccination as Economic Imperative

A secondary category that emerged involved the structuring of permission to vaccinate through appeals to economic imperatives. Although individual beliefs about the vaccine's efficacy in preventing severe illness and slowing transmission remained important, the primary emphasis centered on economic considerations such as cost-effectiveness, workforce protection, and sustained productivity. In this framing, permission was structured not solely through appeals to clinical research but by aligning people as individually responsible for maintaining economic systems of profit and productively. As displayed in Table 2, I organized subcodes into three overarching categories: economic values, actions, and outcomes

Codes	Subcodes
Values and Principles	Cost-effectiveness Economic equity Economic stability Fiscal responsibility Investment in public health Productivity preservation Sustainable healthcare
Actions and Practices	Efficient resource allocation Mitigating economic disruptions Preventing productivity losses Public-private partnerships Reducing healthcare costs Vaccine distribution logistics Workforce protection
Outcomes and Impacts	Economic growth Economic recovery Increased manufacturer value Lower healthcare expenditures Maintaining global supply chains Preventing healthcare system strain Reduced absenteeism Stabilizing labor markets Supporting essential services

Table 2. Codes related to COVID-19 vaccination as an economic imperative, drawn from the total corpus (social media posts, n=396; interviews, n=2). Subcodes are alphabetized and are not mutually exclusive.

The emphasis on these themes shifts the focus toward the economic implications of vaccination for individuals and institutions. Some individuals emphasized vaccines' role in maintaining workplace productivity and organizational stability (offering a microeconomic lens), while others framed it as essential to labor markets, supply chains, and national economic recovery (supplying a macroeconomic perspective). For many participants, this line of reasoning reduced hesitancy or resistance that may have been introduced in other pro-vaccination discourses, particularly those that conflated vaccine decision-making with morality or ethical obligations. For example, Nick, an active member on the r/Economics and r/Coronavirus subreddits, noted:

> I held off [until 2022] because I just didn't trust how quickly it was developed, like I guess I was worried that it was sort of rushed and I wanted to just wait it out a bit to see if it was really safe… I got interested in the impact of vaccine mandates on workplace productivity and worker performance, and it kind of goes without saying that improved health leads to business productivity, which is good for workers, which then stimulates the economy. Also vaccination rates will decrease the risk of another partial shutdown,

> which is horrible for businesses and workers… That kind of outweighed the concerns I still had and motivated me to get [vaccinated].

Nick's shift in perspective highlights how economic arguments function as persuasive rhetorical strategies in public health discourse, positioning vaccination as an economic imperative rather than just a personal health choice. Importantly, this also demonstrates how themes may overlap in conflicting ways: while Nick's reasoning aligns with broader rhetorical appeals linking vaccination to economic stability, workforce efficiency, and macroeconomic resilience, it still positions vaccination as a social responsibility. In contrast to the previous theme, however, social responsibility is not rooted in a sense of systemic injustice, ethics, or morality, but in arguments that getting the COVID-19 vaccine is a small action that individuals can take to facilitate broader economic growth and recovery during a turbulent time for individuals and economic systems.

This perspective employs three key rhetorical strategies. First, it relies on cause-and-effect logic, linking higher vaccination rates with reduced workplace disruptions, stabilized labor markets, and increased efficiency. This mirrors the political rhetoric of many policymakers and business leaders during the pandemic, who relied on economic claims that widespread vaccination is essential to preventing costly shutdowns and sustaining productivity (Bloom, 2011). Second, it is structured around a risk-benefit analysis, where the potential economic risks of widespread illness—such as lost wages, business closures, and supply chain disruptions—may outweigh the perceived risks of vaccination (Rawlings et al., 2022). Finally, it relies on the logic that promoting business stability will, in turn, benefit individuals, positioning vaccination as the most effective means for ensuring both personal *and* systemic economic security (Weller, 2021).

To further ground his assessment of vaccination as an economic imperative, Nick offered examples from his discussions on r/Coronavirus about the vaccines historical potential for reducing healthcare costs for individuals and institutions (Padula et al., 2021), protecting vulnerable industries like tourism (Dube, 2022) and food service (Lee et al., 2023), increasing returns on investment (ROI) in public health expenditures worldwide (DOVE, 2024), and strengthening global supply chains to improve foreign relations between the United States and other countries. As he put it, an economic framework helped him see vaccination as "not just about politics, public health, or some nebulous sense of right and wrong, but about real data about economic growth and sustainability… when you put it that way, it helps convince other people that you're not just pushing them into something just because it's your personal belief."

Nick's experience further underscores the rhetorical and technical nature of structuring permission based on existing research and value systems. Initial arguments emphasizing only public health benefits left room for skepticism about vaccine safety, while abstract arguments about morality similarly decreased his initial vaccine acceptance. However, economic justifications offered a framework that resonated with his priorities, ultimately motivating his vaccination decision and shaping his advocacy. This suggests that economic arguments can serve as an entry point for vaccine-hesitant individuals who may be unmoved by abstract appeals to social responsibility or personal health but are attuned to financial and systemic economic concerns that may *also* exacerbate health inequities. However, as I discuss in the "Beyond Permission: Suggestions for Technical Communicators" section, vaccination justifications can be tailored to align with individuals' pre-existing values without inadvertently reinforcing systems

that prioritize profit over safety, restrict economic stability to the already privileged, or conflate individual worth with economic output.

Vaccination as Personal Freedom

The third category to emerge involved the structuring of permission to vaccinate through appeals to personal freedom. While public health messaging often emphasized collective responsibility, many social media users granted themselves and others permission to vaccinate—or forgo vaccination—by framing it as an exercise of individual autonomy, choice, and self-determination. Within this theme, subcodes were again organized into three overarching categories that capture the range of concerns and values expressed in both social media posts and interviews (Table 3).

Codes	Subcodes
Autonomy and Bodily Integrity	Bodily autonomy Informed consent Medical choice Right to refuse
Civic and Political Rights	Economic freedom Freedom of movement Participation in public life Protection of civil liberties Resistance to government overreach
Personal Values and Goals	Avoiding restrictions Protecting community health Protecting personal health Returning to normalcy Travel access Workplace security

Table 3. Codes related to COVID-19 vaccination as an expression of personal choice, drawn from the total corpus (social media posts, n=501; interviews, n=4). Subcodes are alphabetized and are not mutually exclusive.

For many social media users, the decision to get vaccinated was not only about public health but also about reclaiming personal freedoms restricted by the pandemic. Vaccination was framed as a means to restore normalcy, regain mobility, and avoid exclusions from workplaces and other aspects of public life. These narratives structured permission to vaccinate not through collective obligation, but through individual empowerment and self-determination. For example, Lee, a software developer and frequent poster in the r/COVID19_support subreddit, shared:

I got vaccinated as soon as I could—not because someone told me to, but because I wanted my life back. I wanted to travel, see my friends and family, go to concerts, go back to the gym … Lots of places had requirements, and I just cared more about getting back to the things I wanted to do. I don't see it as "giving in" (in air quotes, original emphasis) to mandates or politics or whatever. I see it as taking control of my own life.

Lee's perspective illustrates how vaccination was framed as a means of restoring personal agency rather than submitting to external pressures. His rhetoric aligns with broader discourses of self-determination, positioning the vaccine as a tool of individual choice rather than compliance. At the same time, his observation reflects a widespread perception of COVID-19 as a temporary disruption that vaccination alone could resolve—an assumption that may have fostered unrealistic public expectations and contributed to declining vaccination rates as the pandemic persisted.

At the same time, the social media posts included in this category revealed additional tensions between personal autonomy and public health expectations. Some individuals who saw vaccination as an expression of personal freedom also rejected mandates that they perceived as infringing on their personal rights. For instance, Megan, a fitness consultant and stay-at-home mother (SAHM) who used Instagram and TikTok to discuss her responses to COVID-19 vaccination policies, said:

> I believe in most vaccines; I got vaccinated for flu and chicken pox and had my kids get them. But I also believe in choice, and with the COVID vaccine, it felt like the government was forcing people out of the choice with mandates and I've just never seen that before. That's where I draw the line. People need to be able to make their own decisions about their bodies without fear of losing their jobs or being shut out of society. Seems like people are really convenient about when they care about personal choices for their own bodies, you know?

Take, for example, Megan's TikTok video, where she described being disqualified for a job due to her refusal to get the COVID-19 vaccine. In the video (Figure 2), she refers to rhetorics of bodily autonomy, often employed in discussions of reproductive healthcare, stating, "Not getting the COVID-19, that's my choice, my body." This stance highlights a key paradox in the discourse of vaccination as personal freedom: while some people, like Lee, viewed vaccination as a way to regain lost liberties, others saw vaccine mandates as a violation of those very freedoms. This divergence underscores how personal freedom was mobilized in different, and sometimes conflicting, ways: both to support and to resist public health interventions.

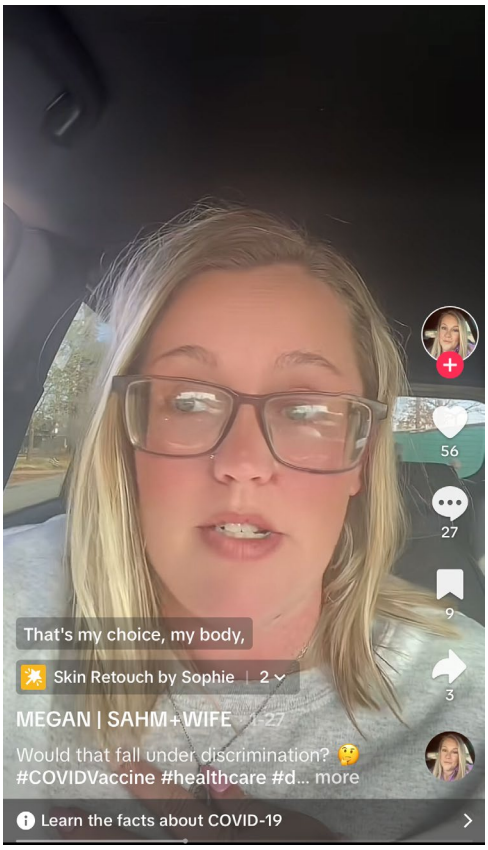

Figure 2. Megan uses TikTok to discuss being disqualified from a job due to her COVID-19 vaccine refusal, asking if it is legal discrimination.

Unlike hesitancy surrounding flu or chickenpox vaccines, Megan's post illustrates how COVID-19 vaccine hesitation or resistance has shifted in focus from "concerns about health impacts or safety… to a philosophical focus on liberty evidenced in arguments about health and medical freedom" (Carpiano et al., 2023). Several factors contributed to this shift, including the rapid pace of vaccine development, the rise of user-driven online health discourse and debate, and the heightened visibility of political discourse surrounding the pandemic and public health interventions. The widespread dissemination of misinformation and distrust in pharmaceutical companies and public health institutions further fueled skepticism, reinforcing the perception that vaccination was not merely a personal medical decision but a statement about complying with institutional values and priorities.

At the same time, the cultural and political battles over bodily autonomy — including efforts to both expand and restrict reproductive healthcare options such as emergency contraception and abortion — shaped how individuals engaged with COVID-19 vaccination discourse. The slogan "my body, my choice," long associated with reproductive rights, has been appropriated by vaccine-rejecting individuals like Megan as a rhetorical strategy to oppose mandates and advocate for medical freedom. And yet, the conflation of vaccination requirements and reproductive healthcare risks undermining the stakes of both: it dilutes the structural injustices that guide reproductive justice movements while legitimizing anti-vaccine sentiment as a form of personal liberty. The opportunistic rhetorical inversion of invoking "my body, my choice" to

reject COVID-19 vaccination while supporting restrictions on abortion access[2] further reveals a selective and contradictory application of bodily autonomy by asserting individual choice in one context while denying it in another, and in doing so, weaponizes the language of reproductive justice to justify a different medical decision. Such rhetorical entanglements underscore the need for technical communicators to craft public health messaging that grapples with concerns about bodily autonomy without reinforcing permission structures that selectively apply rights-based discourse and obscure structural injustice.

As described here, the friction between autonomy and authority was especially evident in how participants navigated personal vaccination decisions amid broader institutional pressures and political movements. These perspectives reveal that COVID-19 vaccination was not merely a public health measure, but a site of negotiation over individual agency, medical decision-making, and, as I discuss in the following section, the boundaries of institutional power. This points to a particularly fraught tension within permission structures: for many, mandates did not offer permission but instead presented an ultimatum, requiring individuals to navigate potentially competing values between personal rights and collective well-being. Such dynamics not only influenced vaccination decision-making but also served as an exigence for broader debates about public health in democratic societies, where rhetorical negotiations between autonomy and communal responsibility remain a persistent source of conflict.

Vaccination as Tool of Institutional Control

The last category that emerged explored the relationships between vaccination and the legitimacy or overreach of institutional control. While participants featured here also grappled with the economic impact of COVID-19 vaccination and its implications for bodily autonomy, they did so by explicitly linking these concerns to government overreach, technocratic rule, and, for some, legacies of medical racism and injustice. In this context, permission was not structured as an invitation to participate in public health, but as a directive shaped by broader systems of governance, profit, and institutional mistrust. Subcodes within this theme (Table 4) reflect a range of abstract concerns—including medical authoritarianism, technocratic rule, and corporate profiteering—as well as deeply political constructs like biopolitics, disenfranchisement, and fear of precedent-setting policies. Importantly, these narratives also reveal how perceptions of institutional control are shaped by historical and ongoing injustices, particularly for marginalized communities who view vaccination not simply as a health decision but as a space to disrupt patterns of surveillance and harm.

Codes	Subcodes
Abstract Concerns	Corporate profiteering Government overreach Loss of bodily autonomy Medical authoritarianism Mistrust in public health institutions Technocratic rule

[2] In her interview, Megan confirmed that does not "personally or politically" support access to emergency contraception or abortions.

Social and Political Constructs	Biopolitics Coercion vs. consent Democracy Disenfranchisement Fear of precedent-setting policies Mass surveillance
Outcomes and Impacts	Alternative health movements Economic growth and recovery Erosion of informed consent Improved public health outcomes Increased public skepticism Widening distrust in medical institutions

Table 4. Codes related to COVID-19 vaccination as a social responsibility, drawn from the total corpus (social media posts, n=147; interviews, n=3). Subcodes are alphabetized and are not mutually exclusive.

As described in the previous section, some participants viewed vaccine mandates and pro-vaccination messaging from public health and government sources as reinforcing power structures rather than solely promoting disease prevention. This perspective emerged particularly among those who were already skeptical of institutional interventions in healthcare, where the push for vaccination, either through implicit messaging or through explicit requirements, created an imposed directive that risked setting a dangerous precedent for future state control over bodily autonomy. However, for other participants, mandates and vaccination requirements served as a tool for ensuring public health and safety, reflecting an appropriate use of governmental and institutional authority. For example, Chance, a public defender and participant on r/legaladvice, said:

> I think people [in the United States] kind of misinterpret what it means to have control. Sometimes, control is a good thing, to avoid the risk of negative outcomes or improve the chance of positive ones. If your government tells you that you have to do something for the good of the country and world, and if that's backed by science, it's not this legal or ethical overreach that people think it is. That's literally what the government is there for. Vaccine mandates are a way to attempt to improve health and return to order and are totally necessary *and* appropriate in a country that has historically had low vaccination rates and proclivities for ignoring scientific fact.

In contrast with many of the other perspectives within this theme, Chance's opinion, grounded in his own professional background and "personal pro-vaccination stance," reframes vaccination as a tool of institutional control in a positive light, arguing that government mandates serve as necessary interventions to mitigate harm and promote public well-being. Rather than viewing control as inherently oppressive, Chance suggests that it can function as a stabilizing force, ensuring adherence to scientifically backed health measures in a society prone to widespread vaccine hesitancy and misinformation. This argument positions state intervention not as an infringement on personal freedom but as a corrective mechanism that aligns individual behavior

with collective health imperatives. Furthermore, by emphasizing the role of science in legitimizing mandates, Chance counters the narrative of governmental overreach, instead portraying institutional control as a pragmatic and justified response to a public health crisis.

However, connections between vaccination and control also highlighted the impact of other institutionally reinforced mandates, such as workplace requirements. For example, Alex, an active participant in r/LockdownSkepticism, expressed similar frustrations as Megan over employer COVID-19 vaccine mandates, explaining,

> At first, I wasn't anti-vaccine. I just wanted to take my time and make the decision for myself. But then [my job] said, "Get vaccinated or lose your job," and we had to submit our vaccine card and everything. And that's where I started to get resistant, because that feels like a company overstepping because of their own values that they think everyone needs to have, which actually decreased my trust in them… yeah, so I left that job, and found one that wasn't going to tell people what to do in terms of their health.

Alex's perspective highlights how institutional policies may transform personal hesitancy into broader resistance, not necessarily against vaccination itself but against the mechanisms enforcing it. His concerns echo longstanding fears of medical paternalism and coercion, where decisions about health and safety are made not by individuals but by governing bodies that may not always act in the public's (or their employees') interests.

This skepticism was deepened with the rapid expansion of vaccine passports, which some users saw as an extension of mass surveillance and biopolitical control. Discussions on subreddits like r/NoNewNormal,[3] r/LockdownSkepticism, and other social media platforms often framed vaccine requirements as a slippery slope, arguing that although vaccination is often positioned as a necessary public health intervention, the enforcement through mandates, tracking, and other forms of documentation gave government and corporate interests excessive oversight of individual healthcare decisions. This, in turn, fueled anxieties about the boundaries of medical authority and the risk of institutional penalties, particularly among marginalized communities. Take, for example, Janise, who ran an Instagram account titled NoVaxMamaJ between 2020 and 2023. During her interview, she shared,

People are so quick to comment and call me stupid or uneducated. But there's a long and real history here… Black people being used as experiments, in labs, with no consent. The government and these big pharma companies have been dictating Black people's health for too long, causing pain and suffering. It's exploitation. There are other ways for me to care about my and my kids' and community's health.

What Janise emphasizes is that vaccine discourse cannot be disentangled from long-standing concerns about institutional control, particularly within marginalized communities. She situates her hesitancy within a legacy of medical exploitation, referring to well-documented cases like the Tuskegee Syphilis Study and the use of Henrietta Lacks' cells through coercion and without consent. By portraying government and pharmaceutical actors as complicit in these harms, Janise

[3] This subreddit was banned by Reddit administrators in 2021 due to the prevalence of COVID misinformation content (worstnerd, 2021).

positions her skepticism not as anti-science, but as a refusal to participate in systems that have repeatedly violated bodily autonomy and community trust. Her perspective reflects not only doubts about the COVID-19 vaccine itself, but deeper mistrust in institutions that have historically harmed Black populations (Slatton et al., 2025).

What Janise's insights also reveal is that public health initiatives and vaccination requirements, even when framed as protective measures, can be perceived as extensions of systemic injustice. In this way, vaccination is not just a decision rooted in ensuring individual healthcare outcomes, but also an opportunity for resistance against legacies of oppression and harm. This framing makes hesitancy or refusal permissible in the name of self-protection and community care, perspectives often overlooked, dismissed, or belittled in dominant pro-vaccination discourse.

And yet, a common shortcoming in participants' responses within this theme was the framing of COVID-19 vaccination mandates as unprecedented, even though requirements for other vaccines, such as meningitis, MMR, polio, hepatitis B, and DTaP, have been enforced in public childcare centers, schools, camps, and other social settings across nearly every U.S. state since the 1960s.[4] This means that what is often framed as an unprecedented form of government control is, in many ways, a continuation of longstanding public health practices. However, the politicization of the COVID-19 vaccine, combined with real institutional failures, has muddied public understanding of these precedents. Untangling this tension is critical for technical and public health communicators, who must navigate not only enduring legacies of oppression and harm but also the ways misinformation and selective memory obscure the historical continuity of vaccination requirements across many arenas of public life.

Beyond Permission: Suggestions for Technical Communicators

The COVID-19 pandemic is still ongoing, and other threats to public health pose significant risks to the general public. Recent attacks on medical research and federal health communication creates a particularly pressing exigence for technical communicators, who are well-positioned to bridge gaps between scientific expertise and public knowledge, advocate for inclusive and accessible health information, counter misinformation through audience-centered communication strategies, and confront injustice in our own classrooms, communities, and clinics. Grounded in key takeaways from this study, I offer five key recommendations for technical communicators seeking actionable strategies to promote more effective, ethical, and socially just health communication. While these suggestions focus on vaccination, they can also be adapted for other health communication contexts.

1. Employ "Yes And" Rhetorical Strategies

One of the most critical insights from this research is that individuals interpret vaccination through different frameworks, such as social responsibility, economic imperatives, personal

[4] Vaccination requirements in U.S. schools have been in place for over 100 years. In 1855, Massachusetts became the first state to require smallpox vaccines to attend public school (Mayo Clinic, n.d.), and in 1922, the Supreme Court's *Zucht v. King* ruling stated that states have the right to require kids to be vaccinated to attend school in order to protect public health. There is also longstanding legal precedent for vaccination requirements in workplaces (Fraser & Neuss, 2022).

freedoms, and institutional control, but that these framings are not necessarily in conflict with each other. Rather than presenting these perspectives as opposing forces, technical communicators can employ a "yes and" rhetorical approach, which acknowledges and integrates multiple viewpoints to create more inclusive and persuasive messaging. Some suggestions include:

- Combine social responsibility with economic benefits by emphasizing how protecting vulnerable populations also reduces healthcare costs and economic disruptions. Campaigns may highlight real stories of individuals and workplaces that experienced fewer disruptions and financial losses due to high vaccination rates.
- Bridge personal freedom and public health by framing vaccination as a way to regain autonomy while ensuring community safety. Messages can validate individual choice while demonstrating how vaccination expands opportunities for individuals and communities, such as safer travel, event access, and workplace security.
- Address institutional mistrust by recognizing the historical and ongoing impact of medical racism and demonstrating a commitment to transparent, patient-centered policies. Technical communicators should craft messaging that acknowledges the legitimacy of skepticism while providing concrete evidence of accountability measures, such as independent safety reviews and endorsements from diverse medical experts.
- Make space for patients and community members to contribute to policies, public health initiatives, and communication strategies, ensuring that their lived experiences, concerns, and values shape decision-making processes in meaningful and equitable ways.

2. Foster Transparency and Acknowledge Uncertainty

Individuals may resist vaccination not because of outright rejection of science but due to concerns about rushed development timelines, changing public health guidelines, or historical medical injustices. To build trust, technical communicators can:

- Be transparent about what is known and unknown about vaccines, acknowledging that scientific understanding evolves over time.
- Avoid oversimplifications or fear-based messaging that could be perceived as manipulative or dismissive of legitimate skepticism.
- Engage in two-way communication, allowing for questions and concerns to be addressed in a respectful manner rather than relying solely on top-down public health directives.

3. Counteract Misinformation Without Reinforcing It

Misinformation about vaccination is pervasive on social media, often shaped by algorithmic amplification and existing ideological biases. To combat misinformation effectively, technical communicators can:

- Focus on preemptive education by providing accurate, accessible, and engaging content before misinformation spreads.
- Use narrative-based approaches that feature real-world stories from diverse communities rather than relying solely on decontextualized statistical evidence.

- Employ strategies such as "truth sandwiches," where accurate information is presented before and after addressing misinformation, preventing the false claim from being the dominant takeaway.
- Leverage trusted messengers—such as local community organizers, healthcare workers, faith leaders, patient advocates, and more—to deliver information in culturally-relevant ways.

4. Intervene When Permission Structures Reinforce Inequity

Vaccine hesitancy is often dismissed in public discourse as a result of ignorance or extremism. However, hesitancy may stem from ethical concerns, financial hardship, and longstanding distrust in healthcare institutions. At the same time, some forms of resistance to vaccination invoke the language of personal freedom in ways that entrench disparities, particularly when they undermine public health efforts or co-opt the rhetoric of justice movements to oppose equity-focused policies. Technical communicators can disrupt narratives that reinforce medical inequity by rejecting discourses that weaponize "individual choice" at the expense of collective well-being. To do this effectively, technical communicators may:

- Develop messaging that builds trust through transparency and affirms commitments to ethical, equitable healthcare systems, while also naming and challenging rhetorical strategies that undermine those commitments.
- Frame vaccination as a practice that reflects care for both oneself and one's community by highlighting how health decisions are shaped by social context and grounded in mutual responsibility.
- Provide clear, accessible information that encourages open dialogue and responds meaningfully to concerns without amplifying harmful or misleading frames.

5. Adapt Messaging Strategies to Evolving Public Attitudes

Public perceptions of COVID-19 vaccination have shifted over time, shaped by new scientific developments, changing policies, and lived experiences. Technical communicators should remain adaptable by engaging in the following practices:

- Regularly reassess public sentiment through surveys, social media analysis, and community feedback.
- Avoid zero-sum rhetoric that excludes those who have been vaccine-hesitant or skeptical in the past and acknowledge that individuals may contribute to public health outcomes in different ways.
- Remain flexible in communication strategies, recognizing that different communities may benefit from different messaging approaches depending on their unique concerns and experiences.
- Engage with community stakeholders to ensure that messaging remains relevant and responsive to evolving public discourse.

Conclusion

This article has offered a critical examination of how competing permission structures shape COVID-19 vaccination decision-making and digital health communication. By analyzing vaccination as a social responsibility, economic imperative, expression of personal freedom, and tool of institutional control, this study's analysis reveals how these structures make vaccination permissible, desirable, and actionable under different circumstances and in different contexts. The key value of this research lies in illustrating that effective vaccination messaging and uptake depend on permission structures that are not one-size-fits-all; rather, they must be adaptive, culturally-responsive, and attuned to the specific values and concerns of different patient communities. This also underscores the need for communication strategies that foster informed consent, transparency, and trust, especially among marginalized populations historically subjected to medical harm, exploitation, and neglect.

Future research should investigate how these permission structures evolve in response to emerging public health crises and shifting sociopolitical landscapes. While this study focuses on COVID-19 vaccination, ongoing and future health initiatives—such as vaccine rollouts for novel diseases, public health campaigns against misinformation, and global health equity efforts—would benefit from a deeper understanding of how different communities interpret, negotiate, and respond to various permission structures. Additionally, more interdisciplinary work is needed to assess the effectiveness of specific rhetorical strategies in real-world communication contexts, including their reception across digital and in-person health advocacy spaces. By continuing to refine ethical and effective public health communication practices, technical communicators can play a critical role in supporting equitable healthcare outcomes and fostering trust, accessibility, and informed decision-making in our ever-changing medical landscape.

References

Abbas, J., Wang, D., Su, Z, & Ziapour, A. (2021). The role of social media in the advent of COVID-19 pandemic: Crisis management, mental health challenges and implications. *Risk Management and Healthcare Policy, 14,* 1917-32.

Aggarwal, N. R., Alasnag, M., & Mamas, M. A. (2020). Social media in the era of COVID-19. *Open Heart, 7,* e001352.

Atherton, R. (2020). "Missing/unspecified": Demographic data visualization during the COVID-19 pandemic. *Journal of Business and Technical Communication, 35*(1), 80-87.

Attwell, K., Ward, P. R., Meyer, S. B., Rokkas, P. J., & Leask, J. (2018). "Do-it-yourself": Vaccine rejection and complementary and alternative medicine (CAM). *Social Science & Medicine, 196*(1), 106-14.

Bakke, A. (2018). Trust-building in a patient forum: The interplay of professional and personal expertise. *Journal of Technical Writing and Communication, 49*(2), 156-82.

Baniya, S. & Chen, C. (2021). Experiencing a global pandemic: The power of public storytelling as antenarrative in crisis communication. *Technical Communication, 68*(4), 74-87.

Basch, C. H., Basch, C. E., Hillyer, G. C., & Meleo-Erwin, Z. C. (2022). Social media, public health, and community mitigation of COVID-19: Challenges, risks, and benefits. *Journal of Medical Internet Research, 24*(4), e36804.

Batova, T. (2021). "Picturing" xenophobia: Visual framing of masks during COVID-19 and its implications for advocacy in technical communication. *Journal of Business and Technical Communication, 35*(1), 50-56.

Berkman, N. D., Sheridan, S. L., Donahue, K. E., Halpern, D. J., & Crotty, K. (2011). Low health literacy and health outcomes: an updated systematic review. *Annals of Internal Medicine, 155*(2), 97-107.

Betsch, C., Schmid, P., Heinemeier, D., Korn, L., Holtmann, C. & Böhm, R. (2018). Beyond confidence: Development of a measure assessing the 5C psychological antecedents of vaccination. *PLoS ONE, 13*(12), e0208601.

Bloom, D. E. (2011). The value of vaccination. *Advances in Experimental Medicine and Biology, 697*(1), 1-8.

Breneman, D. L. & Ghiaciuc, S. (2021). Introduction to disability & the pandemic. *International Journal on Responsibility, 4*(1), 8-12.

Brock Carlson, E. & Gouge, C. (2021). Rural health and contextualizing data. *Journal of Business and Technical Communication, 35*(1), 41-49.

Brunson, E. K. & Sobo, E. J. (2017). Framing childhood vaccination in the United States: Getting past polarization in the public discourse. *Human Organization, 76*(1), 38-47.

Bukar, U. A., Jabar, M., Sidi, F., Nor, R. N H. B., Abdullah, S., & Othman, M. (2020). Crisis informatics in the Context of social media crisis communication: Theoretical models, taxonomy, and open issues. *IEEE Access, 8*(1), 185842-69.

Burki, T. (2019). Vaccine misinformation and social media. *The Lancet, 1*(6), E258-E259.

Campeau, K. (2023). Who's a vaccine skeptic? Framing vaccine hesitancy in post-covid news coverage. *Written Communication, 40*(3), 976-1023.

Carpiano, R. M., Callaghan, T., DiResta, R., Brewer, N. T., Clinton, C., Galvani, A. P., Lakshmanan, R., Parmet, W. E., Omer, S. B., Buttenheim, A. M., Benjamin, R. M., Caplan, A., Elharake, J. A., Flowers, L. C., Maldonado, Y. A., Mello, M. M., Opel, D. J., Salmon, D. A., Schwartz, J. L., Sharfstein, J. M., & Hotez, P. J. (2023). Confronting the evolution and expansion of anti-vaccine activism in the USA in the COVID-19 era. *The Lancet, 401*(10380), 967-70.

Charles, N. (2022). *Suspicion: Vaccines, hesitancy, and the affective politics of protection in Barbados.* Duke University Press.

Charmaz, K., Thornberg, R., & Keane, E. (2017). Evolving grounded theory and social justice inquiry. In N. K. Denzin & Y. S. Lincoln (Eds.), *The SAGE handbook of qualitative research* (5th ed.) (pp. 411-443). SAGE Publications.

Chen, J. & Wang, Y. (2021). Social media use for health purposes: Systematic review. *Journal of Medical Internet Research, 23*(5), e17917.

Cheston, C. C., Flickinger, T. E., & Chisolm, M. S. (2013). Social media use in medical education: A systematic review. *Academic Medicine, 88*(6), 893-901.

Chiang, C. W. (2016). Social media and storytelling in medicine: Probing deeper. *Academic Medicine, 91*(5), 611.

Cinelli, M., Quattrociocchi, W., Galeazzi, A., Valensise, C. M., Brugnoli, E., Schmidt, A. L., Zola, P., Zollo, F., & Scala, A. (2020). The COVID-19 social media infodemic. *Scientific Reports, 10*, 16598.

Conference on College Composition and Communication. (2015). CCCC guidelines for the ethical conduct of research in composition studies. https://cccc.ncte.org/cccc/resources/positions/ethicalconduct.

Doan, S. (2020). Misrepresenting COVID-19: Lying with charts during the second golden age of data design. *Journal of Business and Technical Communication, 35*(1), 73-79.

Decade of Vaccine Economies (DOVE) (2024). *Decade of vaccine economies.* Immunization

Economics. https://immunizationeconomics.org/dove-home/
Dube, K. (2022). COVID-19 vaccine-induced recovery and the implications of vaccine apartheid on the global tourism industry. *Physics and Chemistry of the Earth, 126,* 103140.
Edenfield, A. C. (2021). Managing gender care in precarity: Trans communities respond to COVID-19. *Journal of Business and Technical Communication, 35*(1), 15-21.
Fraser, E. M. & Neuss, M. J. (2022). Who calls the shots? A legal and historical perspective on vaccine mandates. *Chest, 162*(3), 659-633.
French, M. & Monahan, T. (2020). Dis-ease surveillance: How might surveillance studies address COVID-19? *Surveillance & Society, 18*(1), 1-11.
Frith, J. (2021). Introduction to business and technical communication and COVID-19: Communicating in times of crisis. *Journal of Business and Technical Communication, 35*(1), 1-6.
George, D. R. & Dellasega, C. (2011). Use of social media in graduate-level medical humanities education: Two pilot studies from Penn State College of Medicine. *Medical Teacher, 33*(8), e429-434.
Hartzog, M. (2025). 'Flatten the curve': rhetorical data visualizations of a global pandemic. *Technical Communication Quarterly, 34*(1), 114-129.
He, B., Ziems, C., Soni, S., Ramakrishnan, N., Yang, D., & Kumar, S. (2021). Racism is a virus: Anti-Asian hate and counterspeech in social media during the COVID-19 crisis. In *Proceedings of the 2021 IEEE/ACM International Conference on Advances in Social Networks Analysis and Mining* (ASONAM), 90-94.
Hensley Owens, K. (2009). Confronting rhetorical disability: A critical analysis of women's birth plans. *Written Communication, 26*(3), 247-72.
Islam, M. S. Sarkar, T., Khan, S. H., Kamal, A. M., Hasan, S. M., Kabir, A., Yeasmin, D., Islam, M. A., Chowdhury, K. I. A., Anwar, K. S., Chughtai, A. A., & Seale, H. (2020). COVID-19-related infodemic and its impact on public health: A global social media analysis. *American Journal of Tropical Medicine and Hygiene, 103*(4), 1621-29.
Joyner, V., Harper, K. C., & Novotny, M. (2023). Introduction to in living color: Amplifying racial justice work in RHM. *Rhetoric of Health & Medicine, 6*(2), 125-142.
Kalodner-Martin, E. (2025). Listening for and listening to: Narrative inquiry in pandemic health communication. In C.D.M. Andrews, E. Kalodner-Martin, N. O'Connell, H. Wang, L. Wilkes, & C. Woods (Eds.), *Proceedings of the annual computers and writing conference, 2024* (pp. 61-73). WAC Clearinghouse.
Kata, A. (2012). Anti-vaccine activists, Web 2.0, and the postmodern paradigm--An overview of tactics and tropes used online by the anti-vaccination movement. *Vaccine, 30*(25), 3778-89.
Koerber, A. (2020). Is It fake news or is it open science? Science communication in the COVID-19 pandemic. *Journal of Business and Technical Communication, 35*(1), 22-27.
Lambert, R.L., Monty, R., Morquecho, K., & Warren-Riley, S. (2024). *CFP for TCSJ special issue: "unjust 'permission structures' in/as technical communication." Technical Communication and Social Justice*. https://techcommsocialjustice.org/index.php/tcsj/announcement/view/13
Lee, S., Liu, B., Jung, S., & Kim, B. (2023). The effect of vaccination during the COVID-19 for the restaurant industry. *International Journal of Hospitality Management, 110,* 103451.
Macdonald, N. E. & SAGE Working Group on Vaccine Hesitancy. (2015). Vaccine hesitancy: Definition, scope and determinants. *Vaccine, 33*(34), 4161-64.

Mayo Clinic. (n.d.). *History of vaccine requirements and vaccine research highlights.* https://www.mayoclinic.org/diseases-conditions/history-disease-outbreaks-vaccine-timeline/requirements-research.

Mckoy, T., Shelton, C. D., Sackey, D., Jones, N. N., Haywood, C., Wourman, J., & Harper, K. C. (2020). *CCCC Black technical and professional communication position statement with resource guide*. National Council of Teachers of English; Conference on College Composition and Communication. https://cccc.ncte.org/cccc/black-technicalprofessional-communication

Melonçon, L. & Scott, J. B. (2018). Manifesting a scholarly dwelling place in RHM. *Rhetoric of Health and Medicine, 1*(1), i-x.

Moorhead, S. A., Hazlett, D. E., Harrison, L., Carroll, J. K., Irwin, A., & Hoving, C. (2013). A new dimension of health care: Systematic review of the uses, benefits, and limitations of social media for health communication. *Journal of Medical Internet Research, 15*(4), e85.

Padula, W. V., Malaviya, S., Reid, N. M., Cohen, B. G., Chingcuanco, F., Ballreich, J., Tierce, J., & Alexander, G. C. (2021). Economic value of vaccines to address the COVID-19 pandemic: a U.S. cost-effectiveness and budget impact analysis. *Journal of Medical Economics, 24*(1), 1060-69.

Palinkas, L. A., Horwitz, S. M., Green, C. A., Wisdom, J. P., Duan, N., & Hoagwood, K. (2015). Purposeful sampling for qualitative data collection and analysis in mixed method implementation research. *Administration and Policy in Mental Health and Mental Health Services Research, 42*(5), 533–44.

Quinn, S. C., Jamison, A. M., An, J., Hancock, G. R., & Freimuth, V. S. (2019). Measuring vaccine hesitancy, confidence, trust and flu vaccine uptake: Results of a national survey of White and African American adults. *Vaccine, 37*(9), 1168-73.

Rawlings, L., Looi, J. C., & Robson, S. J. (2022). Economic considerations in COVID-19 vaccine hesitancy and refusal: A survey of the literature. *Economic Record, 98*(321), 214-29.

Slatton, B. C., Cambrice, F. G., & Omowale, S. S. (2025). COVID-19 vaccine hesitancy among Black women in the US. *Journal of the American Medical Association (JAMA) Network Open, 8*(1), e2453511.

Shi, B., Huang, W., Dang, Y., & Zhou, W. (2024). Leveraging social media data for pandemic detection and prediction. *Humanities and Social Sciences Communications, 11*, 1075.

Vail, R. (2023). “Descendants of Survivors": Tensions in Translating COVID-19 Vaccine Promotion Videos in Hawai’i. *Technical Communication and Social Justice*, *1*(1), 64-78.

Vila-Henninger, L., Dupuy, C., Van Ingelgom, V. V., Caprioli, M., Teuber, F., Pennetreau, D., Bussi, M., & Le Gall, C. (2022). Abductive coding: Theory building and qualitative (re)analysis. *Sociological Methods & Research*, 1-34.

Walter, D., Ophir, Y., & Ye, H. (2023). Conspiracies, misinformation and resistance to public health measures during COVID-19 in white nationalist online communication. *Vaccine, 41*(17), 2868-77.

Weller, C. (2021). *The economic benefits of vaccinations.* American Progress. https://www.americanprogress.org/article/economic-benefits-vaccinations/

World Health Organization. (2015). Vaccine hesitancy: A growing challenge for immunization programmes. WHO.

https://www.who.int/news/item/18-08-2015-vaccine-hesitancy-a-growing-challenge-for-immunization-programmes

worstnerd. (2021). *COVID denialism and policy clarifications.* r/redditsafety. https://www.reddit.com/r/RedditSafety/comments/pfyqqn/covid_denialism_and_policy_clarifications/

Yang, Q. (2017). Are social networking sites making health behavior change interventions more effective? A meta-analytic review. *Journal of Health Communication, 22*(3), 223-33.

Zucht v. King, 260 U.S. 174 (1922). Retrieved from https://supreme.justia.com/cases/federal/us/260/174/