

## **Vaccine Misinformation for Profit: Conspiratorial Wellness Influencers and the Monetization of Alternative Health**

RACHEL E. MORAN\*  
ANNA L. SWAN  
TAYLOR AGAJANIAN<sup>1</sup>  
University of Washington, USA

Influencers in the alternative health and wellness space have leveraged the affordances of social media to make posting misleading content and misinformation a lucrative endeavor. This research project extends knowledge of antivaccine misinformation through an examination of the role of social media influencers and the parasocial relationships they build with audiences in the spread of vaccine-opposed messaging and how this information is leveraged for profit. Through digital ethnography and media immersion, we focus on three prominent antivaccine influencers—the Wellness Homesteader, Conspiratorial Fashionista, and Evangelical Mother—analyzing how they build community on Instagram, promote antivaccination messaging, and weaponize this information to direct their followers to buy products and services.

*Keywords: Instagram, misinformation, antivaccine, influencers, wellness culture, social media monetization*

Misinformation is an immensely profitable endeavor. Amplifiers of misinformation have found routes to monetize their digital content by using it to direct their online followers to purchase the products and services they endorse. Far-right news and opinion site Infowars, for instance, made \$165 million between 2015 and 2018, selling health supplements and merchandise through the Infowars store (Vaillancourt, 2022) advertised during Alex Jones' talk radio shows, often attached to misinformation narratives or in the context of discussing conspiracy theories (Locker, 2017). This project explores how misinformation is monetized, focusing specifically on how influencers within the antivaccination movement use social media to amplify misleading information about vaccinations and leverage this information for profit.

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Rachel E. Moran: remoran@uw.edu  
Anna L. Swan: annaswn@uw.edu  
Taylor Agajanian: tjaggie@uw.edu  
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Although vaccine misinformation far predates COVID-19, its scale and prominence have increased immensely because of the pandemic (Wardle & Singerman, 2021). Extant research has identified a range of vaccine-related misinformation, including spurious claims that the vaccine contains microchips (Virality Project, 2022) and broader attacks on the safety, efficacy, and necessity of COVID-19 vaccines (Brennen, Simon, Howard, & Nielsen, 2020). Further research has explored the dominant sources of vaccine misinformation, identifying the spread of vaccine opposition from antivaccine influencers (Center for Countering Digital Hate [CCDH], 2021)—in addition to a top-down amplification of misinformation from political elites (Enders, Uscinski, Klofstad, & Stoler, 2020).

Alternative health and wellness influencers were a cause for concern during the COVID-19 pandemic because of their ties to misinformation and vaccine hesitancy (Maloy & De Vynck, 2021). Leveraging a lack of trust in Western institutionalized medicine, some wellness influencers have pushed hyperindividualistic frameworks that dispute the need for collective vaccine uptake in favor of natural wellness (Kale, 2021). Furthermore, the sociotechnical savvy of wellness influencers affords them significant reach for their content. A report from the CCDH (2020) noted that the top 12 antivaccine influencers gained 877,000 followers between December and June 2020 (p. 5). Beyond numerical reach, the parasocial relationships built via social media exacerbate the impact of vaccine misinformation. Moreover, influencers well-versed in the economic and technical infrastructures of social media are well positioned to financially benefit from the misinformation they share.

This article opens by discussing research on the spread of vaccine-related misinformation on social media and within the health and wellness space, as well as the role of parasocial relationships in this spread. By highlighting the role of gender in both the saliency of health-related misinformation and the monetization of wellness content, we offer insight into the gendered dimension of misinformation spread. We then present our methods, drawing on a digital ethnography of three wellness influencers on Instagram. Ultimately, our analysis reveals how influencers take advantage of the platform's sociotechnical infrastructure and attempt to profit from misinformation while normalizing antivaccine sentiment and conspiratorial rhetoric.

## **Extant Literature**

### ***Vaccine-Related Misinformation Online***

The introduction of COVID-19 vaccines in early 2021 brought waves of vaccine-related misinformation, undermining public confidence in the safety, efficacy, and necessity of the vaccines. Health misinformation narratives within the global pandemic were a mix of conspiratorial frames—including theories around microchips in the vaccine and that the virus is a hoax to usher in a “new world order”—and well-established antivaccine tropes linking vaccines to autism and infertility (Brennen et al., 2020; Wardle & Singerman, 2021). In addition to safety concerns, vaccine hesitancy has historically been an issue of individual liberty; some have viewed vaccination as an infringement on bodily autonomy (Diekema, 2022; Zivot & Jabaley, 2022). With calls for masking and COVID-19 vaccine mandates, fears of losing personal freedom have fueled misleading narratives of government control and surveillance (Zimmerman et al., 2023). Public conversation and academic research have been concerned with the spread of misinformation and its impact on vaccine intention and hesitancy. U.S. Surgeon General Vivek H. Murthy (2021) centered

countering misinformation as a core focus for the government's vaccine rollout, arguing that "misinformation is a serious threat to public health. It can cause confusion, sow mistrust, harm people's health and undermine public health efforts" (p.1).

Belief in vaccine-related misinformation is an issue of both trust and distrust. Individuals who are distrustful of traditional sources of information (e.g., the government, health authorities, and mainstream media) tend to turn to less authoritative sources of information (Müller & Schulz, 2021; Tsfati & Cappella, 2003). Moreover, individuals are more likely to believe misinformation they receive from alternative sources, such as close friends or family, because they have come to trust them (Malhotra, 2020). Audiences' ability to build parasocial relationships through social media impacts assessments of trust in online information because audiences receive news and information from a broader range of online influencers, many of whom are not journalists or topical experts (Breves, Amrehn, Heidenreich, Liebers, & Schramm, 2021; Walter, Cohen, Nabi, & Saucier, 2022).

### ***Building Trust and Credibility Through Parasocial Relationships***

An influencer is "anyone with an existing social media following" (Pittman & Abell, 2021, p. 70). Although many influencers are celebrities with preexisting followings, a new cohort of digital labor has emerged that garner popularity through social media alone (De Veirman, Cauberghe, & Hudders, 2017). These individuals often monetize their social media content, making it their full-time career. Exploring the strategies of political influencers on YouTube, Lewis (2020) found that influencers deploy micro-celebrity practices that forward authenticity, relatability, and accountability and, in doing so, position their informational content as more trustworthy than traditional mainstream media outlets. As such, influencers play significant roles as information providers, and the parasocial trust built with their audiences affords them credibility. Theories of parasocial interaction thus provide key insights for scholars of misinformation.

Harff, Bollen, and Schmuck (2022) pinpoint influencers as a potential vector for misinformation, given their "lack of formal expertise" and their role as "parasocial opinion leaders" (p. 833). The authors argue that factors like self-disclosure and perceived ordinariness are central to trust building between influencers and audiences and allow influencers to become trusted authorities despite a lack of traditional credibility markers, such as education, training, and expertise. Parasocial relationships built on social media thus require further attention from misinformation researchers, as the trust built between influencers and audiences can be used to spread misinformation, with influencers leveraging parasocial relationships (and the markers of authenticity and relatability they are built on) as credibility markers comparable or superior to authoritative information sources.

### ***Receiving Health Information From Social Media Influencers***

Through her examination of influencers' communication strategies during the COVID-19 pandemic, Baker (2022) traces emergent narratives that enable alternative health influencers to spread misinformation. These include a "persecuted hero narrative," wherein influencers purport to expose institutional corruption, claim that they are being censored because of their heroic revelations, and

implore followers to defend (their) freedom in response (Baker, 2022, p. 8). Such a narrative underpins the growing phenomenon of “conspirituality” (Ward & Voas, 2011), or the “confluence of personal spirituality and belief in conspiracy theories” (Burt-D’Agnillo, 2022, p. 13). Baker (2022) argues that the orientation of wellness culture to personalized solutions and alternative beliefs makes it a particularly vulnerable space for alternative health influencers to spread misinformation and conspiratorial thinking. Burt-D’Agnillo (2022) also highlights how the sociotechnical cultures and technical affordances of social media allow misinformation from influencers to flourish. This work underscores the structuring role of gender norms on social media within the permeation of misinformation. Drawing on examples from vaccine opposition on Instagram, Burt-D’Agnillo (2022) further explores how visual misinformation on the platform is made particularly salient to women through its use of “feminine aesthetics and evocations of motherhood” (p. 15). Accordingly, in researching how digital influencers leverage parasocial relationships to spread and profit from misinformation, it is important to consider how gender is weaponized to build authenticity and credibility.

### ***Gender and Misinformation***

A growing body of research considers the gendered dynamics of misinformation with respect to both misinformation around gender identity and the weaponization of gender. In exploring the rise of female adherents to the conspiratorial movement QAnon, Argentino (2021) coined the term “pastel QAnon” to capture the “unique aesthetic branding these influencers provided to their pages and in turn to QAnon by using social media templates like Canva.” The feminized aesthetic of misinformation is presented to explain why women buy into conspiracy theories (para. 2). The weaponization of gender has also emerged within COVID-19 vaccine-related misinformation, with antivaccination narratives targeting women as primary care decision-makers for children and perpetuating misleading claims around vaccination and female fertility. The *Virality Project* highlighted how women on social media have been targeted by “vaccine-shedding” narratives. These unsubstantiated narratives suggest that the COVID-19 vaccines are responsible for abnormal menstruation, infertility, and miscarriage, even in unvaccinated individuals, because of the vastly discredited idea that vaccinated individuals “shed” versions of the virus to others (Koltai, Moran, Buckley, Kumar, & Klentschy, 2021).

Our research highlights how feminized aesthetics, discussions of motherhood and femininity, and the dominance of women as social media users allow health and wellness (mis)information to flourish online. This is further complicated by the monetization of social media, which allows influencers to turn their followings and content into economic profit. Moreover, the influencer economy has typically been associated with female labor and structured as a rich-get-richer economy characterized by aspirational entrepreneurship (Duffy, 2018).

### ***Misinformation for Profit***

The growing ubiquity of the “influencer economy”—wherein influencers can monetize their online presence via multiple avenues—means that misinformation holds economic benefits. Hua, Ribeiro, Ristenpart, West, and Naaman (2022) provide a typology of profit-making online, which includes monetization from ad revenue, paid out by social media platforms and funded through advertising, and

alternative monetization routes, such as selling merchandise on Amazon and Etsy or creating subscription accounts for fans through services like Patreon. Influencers' abilities to leverage their content and following for profit beyond simply earning revenue from platforms allows them to monetize their online presence even when they contravene a platform's community guidelines. Hua et al. (2022) discuss how YouTube influencers can still make money from their YouTube presence even if they are "demonetized," that is, banned from receiving YouTube ad revenue, by linking their Patreon page or other related links in the descriptions of their videos. Similarly, research by Moran, Koltai, and Grasso (2022) found the continued use of link aggregation sites like LinkTree and Campsite.bio to be a means of monetization. From the link aggregation page, users could access the influencers' other social media pages, click through to discounted products that gave influencers revenue, or sign up for multilevel marketing products that influencers distributed (Moran et al., 2022).

Understanding the spread and impact of vaccine-related misinformation on social media requires attending to several overlapping phenomena, including the rise of health-related misinformation and its saliency for women, the narrative and technical strategies deployed to build trust and credibility by influencers, and the economic benefits that come from social media engagement. As such, this research project centers on three broad research questions that build on one another:

*RQ1: What strategies do wellness influencers employ to build community?*

*RQ2: What narratives do wellness influencers employ to spread vaccine-opposed content and/or misinformation?*

*RQ3: How do wellness influencers use Instagram to leverage antivaccination content for economic profit?*

## **Methods**

Given the difficulties of studying moderated phenomena (Gerrard, 2018), this study uses a digital ethnographic approach in which researchers spent six months observing the content shared by three influencers who share vaccine-opposed messaging. This allowed researchers to consume content as an everyday user and potentially see more controversial content before it would be taken down by content moderation or, for ephemeral social media content, before it disappeared. This content—consisting of permanent "grid" posts and Instagram Stories that disappeared after 24 hours—was primarily shared on Instagram and other digital spaces the users were directed to, including social media sites, shopping websites, and news articles. This research design was implemented specifically to find and consume content that was defined by community guidelines as "problematic" but still very much present on social media sites, although not found easily via public hashtags.

The authors built on a purposive sample of three Instagram users, best described as "wellness" or "alt. health" influencers (Baker, 2022), focusing on their shared Instagram posts and Stories as units of analysis. These accounts were first encountered while collecting data for another project on the spread of vaccine misinformation among the wellness community. Three specific accounts were chosen from a broader sample because they (a) maintained a large following (i.e., greater than 10,000 followers), (b)

“monetized” their audiences by directing them to external products and services, and (c) routinely posted vaccine-opposed content. Furthermore, the three accounts each represented a slightly different core focus: Account A, The Wellness Homesteader, focuses on health and wellness; Account B, The Evangelical Mother, on motherhood with a religious framing; and Account C, The Conspiratorial Fashionista, on fashion and lifestyle. In the following analysis, we present three archetypes that represent the nature and content of each account. This is done to maintain the anonymity of the accounts studied and to reflect how these accounts capture common tropes of Instagram influencer culture within the wellness space. This was inspired by the creation of “personas” in user research (e.g., Cooper & Reimann, 2003). We present fictionalized visuals to illustrate the aesthetic nature of each account and name each archetype according to its primary content focus, for example, “The Wellness Homesteader”—this is done to minimize the potential for deanonymization. Other details that would not allow for re-identification of the accounts, such as the type of content they share and the products they advertise, are presented in their real form.

The research team created a new Instagram account to follow the three primary accounts plus eight “backup” accounts created by the primary accounts. For four months in early 2022, two researchers accessed these Instagram accounts at least once weekly and watched the content shared by the users, following any links shared by the accounts to other external websites. We continued this process of media immersion in late 2022. During this period, another researcher joined the participant observation, which helped validate prior findings. All researchers kept memos, noting content themes, users’ emotional tactics, products advertised, and interactions with followers, among other details. Researchers met biweekly to discuss their experiences engaging with the content, documenting noteworthy examples, and iteratively analyzing memos. Data analysis was guided by a constructivist grounded theory approach (Charmaz, 2014) in which the researchers identified emergent themes through a constant comparative analysis with memos and research documents (Feuston & Piper, 2018), such as screenshots that were temporarily stored and later deleted to ensure protection for researchers on publication.

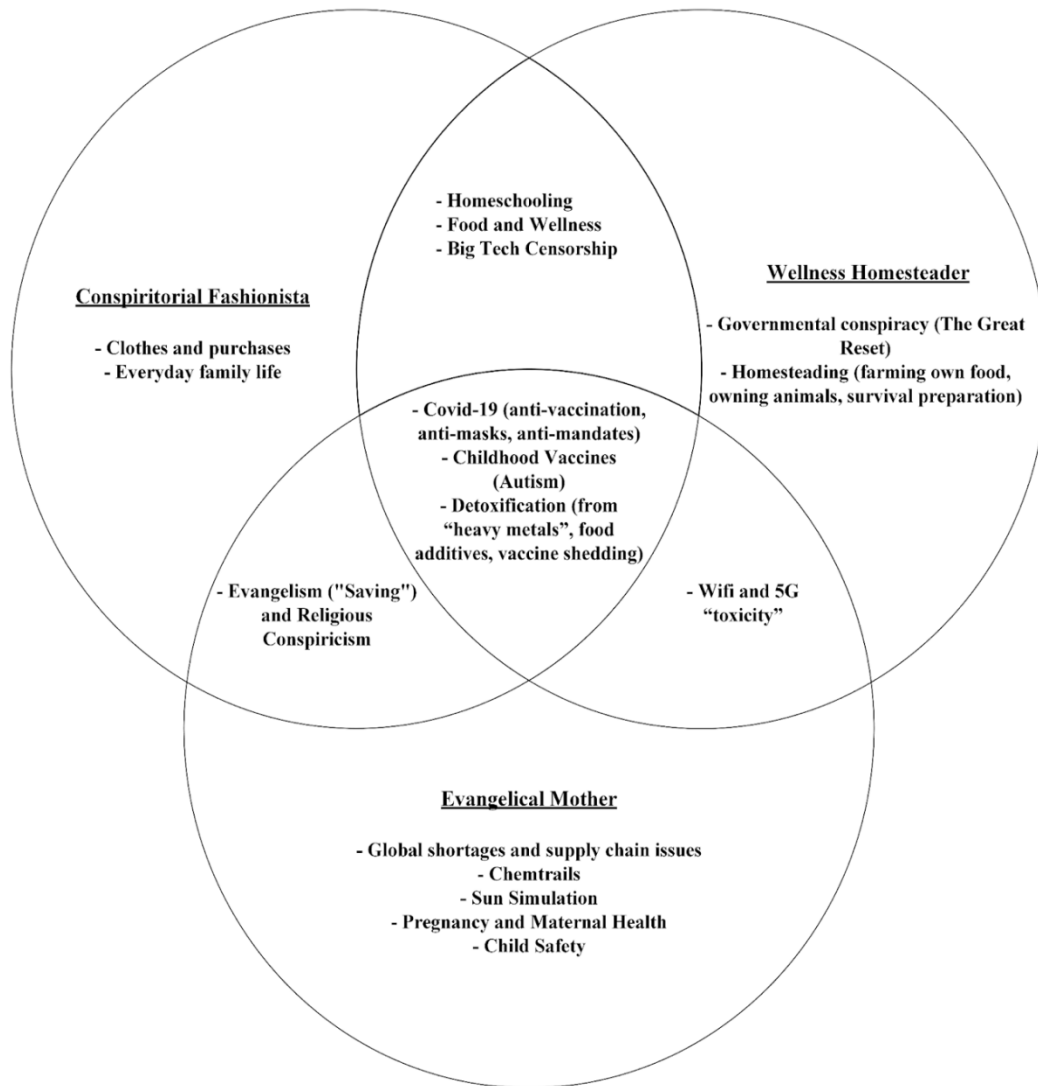
### ***Ethical Considerations***

The ethical considerations around researching social media data—especially collected without the direct consent of users—are numerous (boyd & Crawford, 2012; Larsson, 2015). This is compounded within this research context, as we focus on “untagged data”—that is, data that are not indexed through hashtags or found through search terms—as well as conspiratorial subject matter. Untagged data are more difficult to study because it is harder to systematically find and research and can also be the result of intentional actions by users to avoid their content being easily found by content moderation (see Gerrard, 2018). With this in mind, we take a “case-based approach” (franzke, Bechmann, Zimmer, & Ess, 2020) that attends to issues of privacy and harm for social media users and considers potential risks for researchers. The accounts included in this study are anonymized, and no direct data (in the form of screenshots or full quotations) are included in the analysis. Instead, we present analytical descriptions of three personas that represent each user, purposefully avoiding identifying characteristics. Further, where appropriate, we include researcher-created mockup examples of each account archetype’s content as real-life screenshots could potentially be traced back to our original users.

## Findings

### Overview of Archetypes

Although the three accounts analyzed were chosen because they shared antivaccine content, each account represented a separate archetype of wellness influencers in terms of their content focus (Figure 1). Before presenting the findings related to the research questions, we present a description of each archetype.



**Figure 1. The most-covered subjects by each Instagram archetype.**

We term the first archetype the “Wellness Homesteader” to capture the two primary focuses of the account. The account advocates individualistic solutions to global problems, urging followers to embrace individual routes to “health” that parlay into advice on “homesteading”—that is, cultivating a life of self-sufficiency through subsistence agriculture. This also errs into parenting and family-focused content, as the influencer argues that self-sufficiency should extend to homeschooling one’s children and rejecting childhood vaccinations and traditional medical care in favor of “natural” wellness. Interestingly, the account engaged drastically differently with Instagram Stories versus grid posts. Grid posts engaged in common Instagram visual tropes, such as stylized pictures of healthy foods and sunsets, with vague motivational quotes (see Figure 2). In contrast, ephemeral content shared through the Stories feature was far more explicitly conspiratorial. In promoting self-sufficiency, the Wellness Homesteader advertised a wealth of products related to health, wellness, and an “off-grid” lifestyle that they profit from through affiliate links and distribution deals (Table 1) linked through link aggregation websites.



**Figure 2. Mockup of the Wellness Homesteader’s Content.**



The second account, the “Evangelical Mother,” represents a common archetype of Instagram influencers who share content with religious framing and a concentration on motherhood. This account also represents a growing trend within “mummy blogging” toward conspiratorial and misinformed content (Baker & Walsh, 2022). Conspiratorial sharing occurs on a spectrum, from more widely accepted misinformation topics like antivaccination and COVID-19 narratives to more starkly conspiratorial content about the existence of a simulation sun and chemtrails. Unlike the Wellness Homesteader, the Evangelical Mother’s Instagram grid is explicitly political and conspiratorial. Although the Evangelical Mother did use aesthetic background images of marble countertops and oceans, these were overlaid with coded text and lexical variations, such as “the sharp thing,” meaning the COVID-19 vaccine, or “cinco gee,” meaning 5G (see Figure 3). They rely heavily on Stories, even directing their followers in the bio section of their profile to focus on their Story content. Their ephemeral content is similarly conspiratorial; in a single day of data collection, the account posted Stories about subjects ranging from Saudi Arabia’s “drone taxis” and claims that the Moon is fake to a recipe for an “adrenal” supporting drink and adverse reactions to the COVID-19 vaccination. Again, their content is monetized through links in their Stories and a link collation site in their bio featuring affiliate links, personalized discount codes, and their distributor page for antitoxin spray.



*Figure 3. Mockup of The Evangelical Mother’s content.*

The third account represents a typical Instagram influencer—the fashion blogger—who “fell down the rabbit hole” of misinformation. The “Conspiratorial Fashionista” uses their profile bio to highlight that this is their “nth” number account and that they previously maintained a following of more than 160,000 until they were “deleted.” In rebuilding their account, the influencer refocused their content on fashion and wellness, with the majority of their grid posts dedicated to outfit pictures, selfies, and family photos. However, the account did still share explicitly conspiratorial political posts, with captions that reiterated that they could not post like this regularly without losing their account again (see Figure 4 for a visual example). The Fashionista mostly keeps their political content to Stories, switching between sharing everyday pictures of their family and conspiratorial videos about the satanic influence of Hollywood, the “New World Order,” and antivaccination rhetoric. The Fashionista does not use a link collation site to aggregate affiliate links; instead, it utilizes LikeToKnow (LTK). Influencers link their outfits on LTK with shoppable links; the influencer receives a small commission if followers use the shared link to purchase a piece of clothing.



**Figure 4. Mockup of The Conspiratorial Fashionista’s content.**

***RQ1: What Strategies do Wellness Influencers Employ to Build Community?***

To build an online community, these wellness influencers communicate authenticity, relatability, and intimacy. Over the course of observation, grid posts, reels, and Instagram Stories reflected a pattern of direct and personal communication between each influencer and their followers. When an influencer shared their knowledge—for example, when the Evangelical Mother posted a reel describing their child's recovery from symptoms supposedly linked to 5G or when essential oils were promoted as infallible remedies—they reinforced their expertise. This expertise is then projected as something followers, frequently addressed directly as "you," can learn from. However, while they are positioned as authority figures, these influencers do not distance themselves from their communities. In one grid post featuring quotes from the Conspiratorial Fashionista, they used the plural "we" to describe themselves in relation to their followers, acknowledging them further as "my friends." Language use also emerged as a tactic for establishing a community of those in-the-know. Potentially problematic terms were often self-censored through the use of coded terms or alternative spelling (e.g., "flve gee"), reflecting Moran et al.'s (2022) discussion of lexical variation as a content moderation folk theory among vaccine-opposed influencers; followers were observed using similar language.

All three influencers regularly posted glimpses of their personal lives alongside product placement, critique of institutions, and conspiratorial content, minimizing the interpersonal distance between them and their followers. In a single day, the Wellness Homesteader's Stories reflected the promotion of essential oils, criticism of the U.S. government's commitments to fact-checking, client testimonials promoting TRS, criticism of discussions of gender identity in the classroom, and a reel about their family raising goats. This last reel, reshared from one of their additional accounts, showcased a less controversial aspect of their personal lives, reinforcing their relatability. Family is integral to the Wellness Homesteader's brand, as they spoke about homeschooling their children and parental responsibility. The Evangelical Mother also shared information about their family, using Stories to bolster health-related claims, whereas the Conspiratorial Fashionista's Stories were often populated with videos of their children.

Wellness influencers leveraged several of Instagram's platform features to build their communities. During our observations, influencers used Instagram Stories to spread or amplify narratives related to health, politics, and news events, to link to other accounts and sites to purchase products, and to film themselves speaking to their followers about a particular topic. Stories are an effective tool for candid and ephemeral content; not only do Stories usually disappear after 24 hours, enabling creators to post content they might view as more risky or less curated. Instagram Live can also allow influencers to connect to their followers in real time and speak more freely, as live content may be more difficult to moderate. After expressing concern online about some content being flagged as inappropriate, the Conspiratorial Fashionista created a second Instagram account specifically to "go live," a feature they claimed was blocked on their main account. Live broadcasts can help maintain a community, as those who are online at the time of the live stream are invited to participate through reactions and comments.

Within Stories, influencers regularly used the "Questions" feature to solicit community responses. During the week of U.S. midterm elections, the Conspiratorial Fashionista asked whether anyone had observed "anomalies" when "v0ting" [sic] and a post by the Evangelical Mother linked negative health

outcomes with 5G towers, asking followers for any symptoms they experienced. The “Questions” feature was also used for more banal questions, such as followers’ fitness goals. Answers submitted to these questions automatically arrive as direct messages (DMs), and whereas some users may keep DMs private, all three wellness influencers consistently shared DMs in their Stories. Another way Story affordances were used to build and sustain an in-group was by utilizing highlights. For example, when the Conspiratorial Fashionista posted a news article with a vague reference to an anti-Hollywood conversation that began “several years ago,” the article suggested that followers refer back to their celebrity highlights. As a curatorial tool that allows Stories to exist permanently on one’s profile, thematic highlights allow influencers to curate a shared history with their followers.

Consistent with Baker’s (2022) identification of alt. health influencers’ self-presentation strategies and prior work on influencers, this sample of wellness influencers used micro-celebrity practices to strengthen parasocial relationships with their followers and to achieve visibility on the platform. By relying on both emotional and relational communication and platform affordances, such as Instagram Stories, live streams, and linking to external sites, influencers positioned themselves as genuine, trustworthy, and part of a larger community. In turn, followers continue to return to their content—as implied by their consistency in engagement (e.g., all influencers maintained at least 20k followers; all posts received hundreds of likes) over the observation period—and influencers encourage audience participation through direct address and plural pronouns, shared historical narratives, and the continual evocation of shared values and ideals (e.g., family, religiosity, and institutional distrust).

***RQ2: What Narratives do Wellness Influencers Employ to Spread Vaccine-Opposed Content and/or Misinformation?***

Antivaccine content was interspersed with wellness content, marketing of wellness products, and pseudoscience. Vaccine-opposed sentiment is common within alternative medicine communities, as vaccines are viewed as inorganic and toxic—with alternative health practitioners often believing vaccines cause various medical conditions (Baker, 2022). Though all three influencers have cultivated a brand around healthy living, the Evangelical Mother and Wellness Homesteader orient a large portion of their content around chelation therapy or the purported detoxification of heavy metals from the human body. Although chelation therapy is a legitimate medical treatment for heavy metal poisoning, the method is touted by alternative medicine practitioners as a treatment for a myriad of health conditions ranging from Alzheimer’s to autism, though there is little evidence to suggest effectiveness in these areas (Gould Soloway, n.d.). The influencers frequently advertised a chelation therapy spray made by a multilevel marketing company, of which they were distributors. They then created and shared content marketing the product as a cure-all, including as a treatment for perceived vaccine injury.

Vaccine-opposed sentiment is also commonly found within White Evangelical communities (Guidry et al., 2022). All three influencers, though most visibly the Conspiratorial Fashionista and the Evangelical Mother, regularly created and shared antivaccine content centered around Evangelical themes. Through the sharing of “bible study” content or curated biblical scripture, influencers intermix their religious beliefs with vaccine-opposed sentiments. Though the Wellness Homesteader does not post Bible study content to their feed, they subtly share religious conspiracy theories with which followers

engage more directly in posts' comments. Despite there being no explicitly vaccine-opposed rhetoric within core Christian doctrine, various longstanding eschatological conspiracy theories stemming from Evangelical beliefs have been adapted over time to apply to vaccines—most prominently during the COVID-19 pandemic through the “mark of the beast” narrative (Exline, Pait, Wilt, & Schutt, 2022, p. 3). This narrative coalesces around the idea that during the end time, a mark would be placed on or inside the body that allows the bearer to engage in commerce (Eykel, 2021). Vaccine-oriented interpretations of the “mark” include narratives of a microchip injected into the body through a syringe-like device (Exline et al., 2022). After the release of the religious antivaccine film “Watch the Water,” the Conspiratorial Fashionista shared a reel in which they used the front-facing camera to speak to their followers about the film, connecting claims to their Bible study scripture.

Motherhood also emerged as a connective narrative to vaccine-opposed content and the sharing of vaccine misinformation. All three accounts repeated that they did not vaccinate their children and regularly used the protection of their children (and the figure of the child in general) as a foundation for their vaccine-opposed sentiment. One mechanism by which they “protect” their children is through homeschooling. The interest in homeschooling by these accounts emerged following the new wave of attention to the method sparked by COVID-19 vaccine mandates that required children to be vaccinated to return to school. The Wellness Homesteader, in particular, started a separate Instagram account dedicated to the topic. The accounts thus encourage their followers to pursue homeschooling to avoid these requirements. Oftentimes, content about homeschooling is laced with “mommy warrior” rhetoric and a heated tone, reinforcing to their audience that, as mothers, they have more authority over their children than the education system or the government. The Wellness Homesteader, for instance, often shared the popular antigovernment phrase “I do not co-parent with the government” to rally against vaccine mandates.

Finally, one of the most prominent narratives used by all three influencers concerned individualized liberty and freedom. Despite a historical precedent for compulsory vaccines, vaccine opponents still view COVID-19 vaccine requirements as gross government overreach (Martin & Vanderslott, 2022). All three archetypes expressed hyperskepticism of major institutions and regularly shared content to their platforms that advanced the narrative that mainstream media, science/medicine, and the government were working together to control the public with mandatory “injections” as one method of control. Homesteading and doomsday prepping were regularly discussed by the Evangelical Mother and Wellness Homesteader; these topics were often conflated with vaccine-opposed conspiracy theories, such as the “5G” theory, which purports that the COVID-19 vaccine contains a microchip or nanoparticles compatible with EMF waves spread to the masses by the government through cell phone towers (Evstatieva, 2020). The Conspiratorial Fashionista focused more on conspiracism related to government and media, centering herself as a “warrior” and sharing content around her QAnon-adjacent mission to expose a satanic elite cabal engaging in the trafficking of children, a narrative that also regularly incorporates both vaccine opposition and religious conspiracism.

### ***RQ3: How do Wellness Influencers use Instagram to Leverage Antivaccination Content for Economic Profit?***

As discussed in the examination of each archetype, all three position themselves to profit from their Instagram accounts. Table 1 highlights the range of products that each account advertises, with much

overlap between them. Both the Wellness Homesteader and the Evangelical Mother use their page to promote a “heavy metal detox spray” sold through their own distribution pages. Furthermore, the accounts all use affiliate links, affiliate apps, and other monetization routes to profit from the products they recommend on their pages. Although this is a normal practice for Instagram influencers (see Bladow, 2017 for background), our research findings specifically highlight how antivaccination influencers leverage vaccination content (including vaccine misinformation) to convince their audiences to buy certain products from which they may profit. The range of products highlighted in Table 1, particularly by the Wellness Homesteader and Evangelical Mother, are woven into narratives of self-sufficiency, opposition to traditional medicine, and the promotion of individualistic frameworks of health.

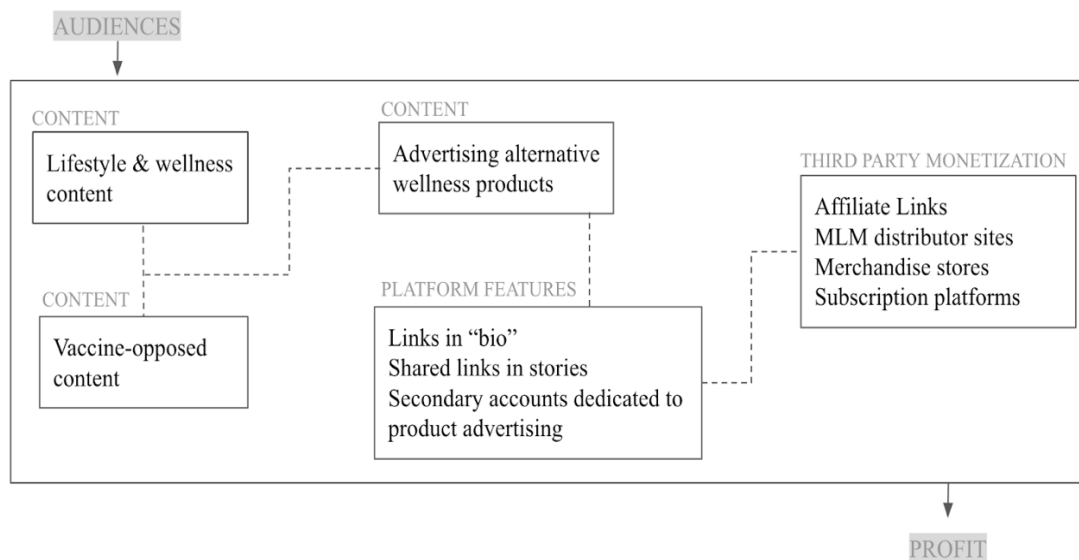
**Table 1. Products Advertised and/or Recommended by Each Influencer Archetype.**

Wellness Homesteader	Evangelical Mother	Conspiratorial Fashionista
<ul style="list-style-type: none"> <li>• Heavy metal detox spray</li> <li>• “Clean” cosmetics</li> <li>• Essential oils</li> <li>• Air &amp; water filtration products</li> <li>• Vitamins and supplements</li> <li>• Apparel: Radiation blocking and political slogans</li> <li>• Homeschooling resources</li> <li>• Fitness products</li> <li>• “Off-grid” supplies: Solar panels and generators</li> </ul>	<ul style="list-style-type: none"> <li>• Heavy metal detox spray</li> <li>• “Off-grid” Supplies: Solar</li> <li>• Panels and generators</li> <li>• Emergency food</li> <li>• Vitamins and supplements</li> <li>• Air and water filtration</li> <li>• Products</li> <li>• EMF blocking products</li> <li>• Organic/nontoxic food</li> </ul>	<ul style="list-style-type: none"> <li>• Like To Know (LTK):</li> <li>• Apparel &amp; accessories,</li> <li>• Home décor, home goods,</li> <li>• Skincare products</li> <li>• Amazon affiliate links:</li> <li>• Various home and lifestyle</li> <li>• Products.</li> </ul>

Two of the three accounts leveraged antivaccination messaging to promote products they directly (products they produce) or indirectly (third-party products) sell (if followers followed their shared links to purchase). The Conspiratorial Fashionista took a different but well-trodden monetization track, focusing on using LikeToKnow to collate their fashion and lifestyle recommendations (that they highlight using their Instagram page) and earn commissions when their followers click through to buy recommended items. In this way, the Fashionista does not directly monetize their conspiratorial content by linking it to specific products. Instead, their antivaccination content serves to attract and maintain an aligned audience, who then also follow their fashion recommendations—from which the influencer can profit.

For the two other accounts, antivaccination narratives were specifically tied to product marketing (Figure 5). During our observation period, we noted several recurrent antivaccination narratives, including widely debunked ideas of “vaccine shedding,” arguments that vaccines were unnecessary, ineffective, actively harmful, and even a mechanism for governmental control. In making these arguments, often through Stories sharing misleading “evidence,” personal testimonial, or resharing other social media content, these influencers position other wellness products as replacements or antidotes to the described harms of vaccination. For example, influencers positioned a heavy metal detox spray to “detox” metals obtained through vaccination and minimize the impact of “vaccine shedding,” that is, being around

individuals vaccinated against COVID-19. Similarly, influencers advertised “clean” cleaning products—those without chemical ingredients—as routes to avoiding the need for vaccination by maintaining hygiene at home. Further, influencers advertised essential oils as remedies for colds, viruses, and other diseases, arguing that they were “natural” routes to health that were superior to “harmful” vaccines.



**Figure 5. Illustrative figure of monetization of vaccine-opposed content.**

All three archetypes use Instagram features to facilitate for-sale product marketing, including the “link in bio feature,” link-sharing on Instagram Stories, and live streaming. All three archetypes used link collation websites to aggregate affiliate links and the products that they distributed. Link collation services have become a known route for channeling social media audiences to misinformation off-platform (Moran et al., 2022). Our data collection highlights how these collation sites are central to the profit-making process, as they take an influencer’s audience from their social media account to websites the influencer can use to make money, such as the Amazon affiliate program and the LTK app. Influencers also used the link-sharing feature in Instagram Stories to share links to the products they recommended. For example, the Wellness Homesteader commonly used Stories to share antivaccination content, followed by slides advertising alternative wellness products that contained links that, when clicked, would take a follower to their distributor page for essential oils and antitoxin sprays. Furthermore, both the Wellness Homesteader and the Evangelical Mother created specific secondary Instagram accounts devoted solely to advertising their heavy metal detox sprays, and they used the “Story Resharing” feature of Instagram to cross-post content across their multiple accounts.

The monetization of antivaccine content also rested on third-party organizations that created profit opportunities for online influencers. The most central of these noted within this observation were multilevel marketing companies (also known as “network marketing”). Consistent with prior research into the role of multilevel marketing selling on social media (D’Antonio, 2019; Prins & Wellman, 2021), influencers relied

on gendered narratives around womanhood to sell products related to health and wellness as distributors of networked marketing products. The Wellness Homesteader and the Evangelical Mother directed followers to their distributor pages for a company selling heavy metal detox spray and to their seller pages for several different essential oil multilevel marketing companies. In addition to selling MLM products (and recruiting “downlines” to sell products from which they earned more commission), all three influencers monetized through Amazon affiliate links. This allows them to share a wide variety of third-party products and earn a small commission should their followers buy them. Finally, the influencers directed their audiences to other social media and content-related sites for further monetization opportunities. For example, the Wellness Homesteader includes links to her podcast in her Link Tree, which supporters can subscribe to at various cost tiers through Spotify’s Anchor podcasting platform.

## Discussion

### ***The Role of Platform Structure in Monetizing Misinformation***

The structure of Instagram allows users to monetize their content easily—its features prioritize engaging content and allow influencers to build their brands and profit from them. In the absence of a comprehensive approach to content moderation, such monetization is open to all, including influencers who spread vaccine misinformation. Instagram’s own policies about *internal* monetization, that is, receiving money directly from Instagram, prohibit users from monetizing any content that can be categorized as “misinformation” or content that contains misleading medical information (Instagram, 2023c). However, the influencers we studied did not need to rely on that monetization route; instead, they utilized a range of third-party methods, such as affiliate links, audience subscription sites, and multilevel marketing product pages. This creates a loophole of sorts, as the platform is not directly responsible for influencers profiting from problematic content, and third-party providers are not responsible for the nature of the content posted on an outside platform. In an era of information disorder (Wardle & Derakhshan, 2017) on social media, the “influencer economy” serves to exacerbate misinformation by making antivaccine rhetoric a profitable endeavor.

Instagram’s platform affordances—such as Instagram Stories and live streaming—foster parasocial relationships through the creation and consumption of ephemeral content. This allows vaccine-opposed influencers to build and sustain trust with large audiences. Trust cultivated through parasocial relationships then translates into trust in promoted products (Jin, Ryu, & Muqaddam, 2021). Instagram allows influencers to build a flexible relationship with their audience that, for the archetypes explored in this article, results in audiences trusting vaccine misinformation and, subsequently, in audiences investing in alternative health products advertised by the accounts. Moreover, as vaccine misinformation is not the sole focus of the accounts—each archetype also focuses on wellness, fashion, and family—antivaccine content is normalized, consumed among more everyday content, and made to feel less extreme. This is compounded by the aesthetic homogenization of Instagram content. Vaccine messaging presented by the accounts explored retains an “exaggeratedly feminine, pastel-laden aesthetic” (Bracewell, 2021, p. 2) that aligns with the visual style adopted more broadly by Instagram influencers and features prominently in the algorithmically driven “Explore” page of female-identifying users.



### ***The Gendered Dynamics of Social Media***

The broader gendered dynamics of social media also facilitate the monetization of misinformation. Integral to the do-it-yourself ethos of the influencer economy is the notion that anyone can find a way to turn passion and lifestyle into profit; this has, in part, given rise to the #girlboss phenomenon in which women's empowerment is synonymous with their entrepreneurship. Although the popularized vision of the entrepreneur has been predominantly masculine, women have emerged as leaders of self-enterprises across many contexts, such as fashion, beauty, lifestyle, and motherhood (Duffy & Pruchniewska, 2017).

The influencers we observed take advantage of the celebration of entrepreneurial femininity on social media, working within the realm of fashion, lifestyle, and mommy blogs while also spreading and monetizing misinformation. The popularity of mommy blogging in particular allows influencers like the Wellness Homesteader or Evangelical Mother to leverage their identities as mothers to promote "natural" alternatives to evidence-based interventions. This resonates with the work of Baker and Walsh (2022), who demonstrate how antivaccination is promoted through a "feminine, intuitive, holistic approach to knowledge" (p. 12). In this case, good motherhood relies on innate wisdom rather than institutionalized medicine or peer-reviewed science (Baker & Walsh, 2022). Each archetype regularly appealed to their followers' morality by conflating vaccine rejection with care, while also taking advantage of the entrepreneurial space in which they operate. By regularly linking out to sites and sharing testimonials, they communicate that it is not enough to simply acknowledge the harm of vaccines or the toxicity of heavy metals, but that followers should act on their feminine virtue by purchasing products. This interweaving of morality, motherhood, and capitalism also emerges in discussions of MLMs, which emphasize women's empowerment, financial and spiritual gain, and the ability to generate wealth while being a wife and mother (Pavelko & Barker, 2022).

For the influencers studied, wellness is synonymous with antivaccination. As "persecuted heroes" whose views oppose the medical establishment, they profess to expose the "truth" and mobilize followers through a mix of conspiratorial language and health advice (Baker, 2022). Their online content exemplifies both feminine empowerment via social media entrepreneurship and faith-based appeals to women's traditional roles and responsibilities in the household—which includes using products like essential oils to heal. Others operating in the wellness space do not need to be explicitly antivaccine to spread and monetize misinformation. Individuals with smaller followings may post similar topical content (e.g., homesteading, wellness, motherhood), which can lead followers down a path of similar and more nefarious content via linked content in Stories or suggested accounts.

### ***Potential Interventions Into the Monetization of Misinformation***

The monetization of vaccine-opposed and other problematic wellness content on social media extends far beyond the three influencers discussed in this study. The umbrella of wellness includes a myriad of fad diets, mental health discourse, and MLMs, many of which make unfounded, misinformed, and sometimes dangerous health claims, almost none of which are in direct violation of Instagram's community guidelines (Instagram, 2023a). Even additional guidelines created to mitigate health misinformation continue to apply to COVID-19 alone (Instagram, 2023b). This means that while a post claiming that

Ivermectin cures COVID-19 explicitly contravenes platform rules, users can still promote supposedly curative supplements and garner income through associated third-party links. Furthermore, Section 230 currently affords platforms the ability to avoid responsibility for users' problematic content (EFF, n.d.), thereby disincentivizing additional steps toward moderation.

When considering realistic and meaningful interventions for the spread and monetization of health misinformation, we must consider both the structure of the platform and the culture of the community. Influencers like those in this study rely on external linking features, such as "Link in Bio" and affiliate links, to direct their audience to their other platforms and products. A community-based approach to regulating health misinformation might limit the use of these external linking features and would serve as a feasible point of friction to reduce the ability to capitalize on unfounded health claims.

At a policy level, the findings of this research point toward a need for better regulation (or implementation of existing laws) about the advertising of wellness products and health claims. The FTC has issued guidelines for health claims in advertising for the first time in 25 years. Under these guidelines, the FTC will hold manufacturers accountable for vague or implied health claims, in addition to direct health claims made in their product marketing (Dennett, 2023; FTC, 2022). However, if the safety standards for producing dietary supplements are not meaningfully enforced, this gap in regulation gives platforms little incentive to prevent their users from marketing potentially unsafe products.

### **Conclusion**

This study has several limitations that offer directions for future research. Our in-depth analysis of three antivaccination influencers illustrates the relational and infrastructural routes to monetizing health misinformation; however, it does not fully address the scope of the problem. Other researchers might examine the reach of alternative health and wellness influencers and their audiences through social network analysis. Furthermore, in 2023, we observed that influencers pushing conspiratorial rhetoric have begun to migrate to other platforms, such as Telegram; future projects should consider how health misinformation is leveraged for individual profit across different platforms. Finally, our work audits content related to COVID-19 vaccines, but as pandemic-era concerns, such as vaccine mandates, become less salient, researchers should attend to how the wellness space evolves.

Taken together, this research highlights how parasocial relationships play an important role in the spread of misinformation on social media sites like Instagram. This further extends parasocial interaction theories by attending to how the trust created by these interactions can challenge long-established sources of trust tied to authority and traditional markers of credibility. The sociotechnical infrastructure and culture of the platform provide fertile ground for trust building, and such parasocial relationships are increasingly leveraged to position nonexpert wellness influencers as authoritative sources of health information. Furthermore, the monetization routes and the normalization of content sharing for profit afford misinformation sharers numerous ways to financially benefit from the spread of vaccine misinformation presented as everyday wellness advice.

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