**THE PUBLIC HEALTH CRISIS OF MEDIA MISINFORMATION,
DISINFORMATION, AND CONSPIRACY THEORIES:
A CASE FOR BIOETHICAL INTERVENTION**

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ABSTRACT

The following thesis will set out to argue that misinformation, disinformation, and conspiracies, in tandem with today's advanced communication technology, pose a dire threat to the future of public health, biotechnological advancement, safe medical procedures, and ethical evidence-based legislation and policy. Each chapter will explore different points in public health and medicine that misinformation, disinformation, and conspiracies have already begun to shift or disrupt in ways that are eroding safe and effective care. Misinformation, disinformation, and conspiracy theories should be seen more broadly outside of the spheres of Big Tech and First Amendment discourse, and instead understood as a public health concern of which there are ways to inoculate, treat, and mitigate public spread. Much as we have come to understand that gun violence requires more than a judicial approach, so too must we come to understand misinformation, disinformation, and conspiracy theories as an indicator of failing health in a population.

DEDICATION

To my mother, who has always encouraged my curiosity.

To my grandmother, who did not get to see me here,

but whose passion for integrity in the world of medicine I have inherited.

To everyone who saw that I was capable of this long ago,

I am sorry I didn't see it for myself until now.

ACKNOWLEDGMENTS

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CHAPTER 1: INTRODUCTION – DEFINITIONS & DESIGNS

Humanity has always been fickle about the truth, particularly when it does not serve our collective or individual interests. Political leaders, spouses, friends, parents, coworkers, and professionals alike may all bend or break the truth in order to meet a goal, for a variety of motives, from benevolent to malevolent. The truth is not monolithic, it does not stand separate or isolated from other necessary premises we as humans require in order to prosperously exist amidst one another. Altering the truth has dire consequences, and those reverberate through time, jeopardizing our future selves, our progeny, our survival as a collective intelligent and healthy society.

Why should we first seek and then commit to having societal truths? What should be our motivation beyond what is "right"? Scientifically speaking, seeking and establishing universal truths is necessary in order to build beyond the mysteries of naked faith. The profoundness of scientific truth gives us the ability to innovate, extend the quality of existence with biomedical breakthroughs, heal disease that would otherwise painfully terminate life, and protect lives not quite lived yet. But truth, like humans, is fickle, almost entirely relying on the consensus of a collective body of people, and within that communal body each individual must understand their participation in upholding reasonable consensus to establish that truth (Southwell, Thorson and Sheble 2017). With each act of defiant refusal of the truth, integrity, expertise, authority, and reality are eroded. The more others are also pulled into a quagmire of embattled truths and beliefs (which do not have to be true, only invested in emotionally), the more we stand to lose some of our greatest accomplishments in communal health.

In current times the creation, control, and manipulation of information – crafting truths – are powerful keys to changing the choices, existences, behaviors, and realities of entire subcultures. With the emergence of the COVID-19 pandemic, globally we all were forced to face the rise in misinformation, disinformation, and conspiracies, and how extensively they could harm our health. Even now, three years in, there are still a disproportionate amount of public health and medical professionals who are unconvinced of the threat severity these pose to the dedicated work they do trying to preserve life, let alone the subtle but pivotal differences between them.

Misinformation is information that is incorrect, most likely by accident, and has been shared in its incorrect form. This can often occur within communities of non-experts who are looking honestly enough to educate and inform one another, but do not have the training or practiced teaching methodology to correctly pass along the information to others. Misinformation is seen frequently in health settings, whether it be the longstanding misinterpretation of "bodily fluids" to mean or include saliva during the height of the HIV epidemic, or the belief that one cannot get pregnant while menstruating, it has always had to be dispelled by doctors and always will be. Translating to language of origin, comprehension and literacy, and the emotional state of duress during a diagnosis all hold the potential for a patient or client to relinquish necessary details related to their health needs and care, resulting in misinformation.

Disinformation is more sinister and presents different challenges in the efforts to disrupt and uproot it from public forum and thought. Disinformation is the intentional creation of misleading, misrepresenting, or completely malicious information, with the intent of manipulating a consumer. Often blanketly labeled misinformation as well,

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disinformation is created to serve as a trojan horse for larger objectives. Embedded within the category of disinformation is *malinformation* (Zielinski 2021), a lesser-known portmanteau that is specific to disinformation and is created to target and harm a group or individual distinctly. Malinformation is meant to imperil an-other by spreading falsifications and lies.

Conspiracy theories are the complete ideology that is built around a collection of concepts built off mis/disinformation, usually constructing a siloed community that holds steadfast and unwavering loyalty-centered identities to them. These ideologies and their subsequent subcultures often become more fanatical, paranoid, and isolating over time as well as requiring a continuous amount of new mis/disinformation presented in order to maintain their fellowship.

It is important to acknowledge the distinctions between these terms, as they indicate vastly different causation, implicate different actors of varying degrees with an array of intentions, and must be combatted in unique patterns that align with how they are devised. With this in mind, these terms will be consistently used with precision throughout this thesis. Further contextualization that is required is the construction of mis/disinformation. In order for information to acquire the label of "misinformation" or "disinformation" two components must be established; 1) the intentional or unintentional dissemination of mischaracterizations or false/misleading information (this can be in a variety of forms, including but not limited to cherry picked data points taken out of context, misrepresented research results, debunked or junk science, bogus assertions from promoted authority figures, and anecdotal evidence) and 2) a captive

audience/community that comes to fallacious conclusions that have been encouraged by intentional or unintentional conjecture (Southwell, Thorson and Sheble 2017).

It is oversimplification to assert that mis/disinformation and conspiracies are exclusively a collection of overt lies that any and every one can easily discern. Often when we hear about them it is the most sensationalized parts that draw the typical cartoonish image of a person sitting isolated in a dark basement, bedecked in a tin foil hat in front of a wall of nonsensical debris pinned in a pattern only they have reasonable insight to. But it is this flippancy for the talented and often subtle process that engineers/spreaders of mis/disinformation execute in order to shift an individual's perceptions and reality that also endangers our collective truth, especially foundationally established truth in medicine and public health. Those who have done the hard work to become experts in healthcare, biomedical sciences, and public health must treat this moment with more reverence.

Mis/disinformation and conspiracies most often utilize components of both true and neutral information that is woven within the ostentatious fabrications, this creates the necessary curiosity and consumption in the beginning as well as cemented devotion to the mis/disinformation or conspiracy theories further in. This technique also primes the audience to depend on and over exercise inferential reasoning, where they feel empowered to come to their own conclusions (Hofstetter, et al. 1999). This idea that they have reached these answers on their own makes it the most difficult to convince them they are being corralled with manipulation toward an injurious point, because they were never directly told what to believe, but rather in a myriad of ways asked repeatedly, "how could you not agree?"

The construction of the audience also has a necessary bearing on the efficacy and strength that mis/disinformation and conspiracy theories have on persuading their behaviors, decisions, socio-political stances, etc. Education and ideology stand as the most significant indicators of susceptibility, well above political interests, age, race, and income (Scheufele and Krause 2019). With the insertion of mis/disinformation into our social forum, what emerges are two factions that have wide ranging effect on the overarching public opinion, both of which science experts must put forth the energy and effort to address rather than ignore. There is the uninformed or disconnected audience and the misinformed and/or conspiracist audience (Scheufele and Krause 2019). Both of these populations become fertile ground for charlatans, extremists, and communal paranoia resulting in the erosion of trust in necessary institutions of science and governance.

Misinformation, disinformation, and conspiracy theories intentionally provide an accessible, understandable, uncomplicated world of information that promotes everything as a warring dichotomy; one side good, the other an encroaching evil (Marwick and Lewis 2017). With this established construction to paint wildly on, creators of disinformation, unctuous opportunists and grifters, and idealogues looking for political power to exert extremist dogmatic authoritarianism and domestic terrorism all can begin planting and sowing social ruptures to their gain. Playing on epistemic knowledge and beliefs in the receptive populaces, creators and distributors of mis/disinformation combine a plethora of borrowed culturally significant folk mysticisms/practices and *scientism* to incept fear of western medicine as well as promote perceivably sensible answers to a collection of complex illnesses (Baker 2022). This ability to follow the

reasoning presented in mis/disinformation gives the audience inflated confidence in the "correctness" of it, and it is this confidence, technophobia, and fear combination that make debunking a near impossible task.

In the sections following the case will be made that the issue of misinformation, disinformation, and conspiracy theories, although not new to the modern era, now pose one of the greatest public health threats. This threat is an exponentially growing problem that was sent into hyper drive by the COVID-19 pandemic. In the same way we now understand gun violence to be more than an act of brutality that can only be addressed by the judicial system, so too must misinformation, disinformation, and conspiracy theories move beyond the stagnant realms of freedom of speech arguments and Big Tech responsibilities.

Misinformation, disinformation, and conspiracy theories are core issues that have always disrupted and harmed public health. From the bubonic plague, the beginning of the HIV crisis, and the current global pandemic, mis/disinformation and conspiracies have incepted stigma and altered the protective behaviors of communities that continue to be decimated by these choices. Mis/disinformation encourage tempestuous aggression, fueled by paranoid in-group extremism that turns to terroristic attacks that upend physical communal safety (Basit 2021). Mis/disinformation and conspiracies prey on the preexisting mental health conditions of disordered minds and drive isolated groups into zealous frenzies of shared delusions.

Vulnerable and marginalized populations are made targets of the ginned-up grievances that mis/disinformation and conspiracies thrive on, centralizing all fault upon them while uniquely weaponizing true historic health atrocities to convince minoritized

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people to neglect seeking preventative care. Social and mainstream media compete with each other on a 24/7 news cycle, each trying to produce the most clickbait in the attention economy, the results of this race being a constant deluge of useless, meaningless, repetitive health and wellness information. It is this morass that mis/disinformation can easily hide in the deepest parts of the saturated abyss, pulling the lost and unsuspecting into echo chambers and silos. Politicians, driven to emotional and financial reward seeking through ongoing attempts at crafting the perfect viral moment, now draft policy and legislation through reactionary governance that mis/disinformation and conspiracies stimulate through fictitious concerns regarding health freedoms. Mis/disinformation creation is further propelled by the profound ease with which money can be extracted from a captivated following, eager to please a leader, heal an ailment, or be part of something they were told would give them purpose.

The bioethical imperative is clear; without righting the ship of truth through collective consensus we are lost at sea. The rogue wave of misinformation, disinformation, and conspiracy theories threaten to wreck the fragile ecosystem that is trust and integrity in the medical sciences. There is no greater sociological threat to current and future population health than truth becoming an amalgamation of augmented realities that are fragmented along political, ideological, and monetary lines. Every day that the systems of medical care and public health refuse to interject, they are passively abandoning the core tenet of non-maleficence, ultimately relinquishing health equity and justice to the most villainous amidst us.

CHAPTER 2: INCITE/INSIGHT TO VIOLENCE

We real cool.

We skip school.

We lurk late.

We strike straight.

We sing sin.

We thin gin.

We Jazz June.

We die soon.

- Gwendolyn Brooks

A Washington D.C. pizza restaurant. A Buffalo New York grocery store. A church in Charleston South Carolina. A synagogue in Pittsburgh Pennsylvania. Throughout American history violence has been a well optioned means to an end, a way for one group to assert dominance and power over another and enforce inferiority on those who have been relegated as "other." With great help from lobbying groups that pool money within them, the second amendment of the United States doesn't just exist as a guide point of governance, but now looms large as unquestionable canon that when challenged by mere suggestion of regulation, defenders spiral into buying sprees and potent online screeds about protecting constitutionalism by any means necessary.

Blended along with periods of societal and political polarization, economic tension, and the toxicity that comes from hyper individualism, a virulent slurry of unpredictable but useful groups emerge, and it is within these spaces that mis/disinformation and conspiracies find great success seeding (The DHS/Office of

Intelligence and Analysis 2009). Domestic extremism grows in the fertile environments

of uncertainty, and creators of disinformation use these moments of perfect storm

gathering and rise in progressivism to target individuals who are responding to these

changes with fear, paranoia, and especially grievance. These creators take the reins by

driving up production and pumping extremist materials and media into online forums to

ensnare and organize these groups for insidious purpose (The DHS/Office of Intelligence

and Analysis 2009). Disinformation is shared in open virtual social forums like Discord

or Twitter, private groups on social media platforms like Facebook, and intentionally

evanescing chat apps such as Telegram and Signal. This easy shareability along with the

speed at which it can be downloaded/saved and then reshared across platforms makes

disrupting it nearly impossible. This conundrum is seen as *making the ephemeral eternal*

(Cohen and Decker 2022), where there is no way to relieve the virtual public square of

the influential and dangerous propaganda as it can be shut down and uploaded repeatedly

as long as a digital form of it is still saved somewhere.

Much of the violence that emerges from these spaces are named *lone wolf* events,

which is then misinterpreted to mean acting entirely alone and not at the behest of any

others. In fact, much of lone wolf violence is spurned from not a singular individual's

self-induced angst and rage, but rather a controlled and constant nudging toward this

conclusion through a frequent diet of disinformation and conspiracies (Basit 2021).

Consistent themes within these closed spheres of conversation and media sharing are the

invented crises of uncontrolled and dangerous immigration and great replacement theory,

end times prophesies utilizing Christo-fascist narrative, misogynist theory and principles,

and the assurance of an impending economic collapse that will lead to profound chaos (Marwick and Lewis 2017).

Disinformation first encourages that amidst these gathering isolated individuals what forms are first para-social relationships that evolve into a group bound by *anomie* (Marwick and Lewis 2017). Together they experience a sense of purposelessness, a deepening sensation that the progression of the social world has left them behind, causing fragmented identities that are now mainly built around their resentment. Disinformation and conspiracies benefit off the *grievance economy* (Marwick and Lewis 2017) that these groups trade in, selling them the likeable reasons that paint them as victims of an unfair world that refuses them their rightful value. These communities are labeled *regressive groups* (Basit 2021), and will seek the guidance of a leader that can assist them on their quest for significance (Basit 2021). The individual who emerges at the forefront of regressive groups is known as a *merchant of illusion* (Kernberg 2008), and reflects the group's dominating traits, which are centrally paranoia, narcissism, and aggression.

This leader provides the rhetorical devices that satiate the group's need for *cognitive closure* (Basit 2021), by reducing the construction of the world into three simplified components; i) grievances/threats ii) culprits/causes iii) legitimized response/defense (Basit 2021), also known as the threat (exaggerated or invented) – fear (dehumanized group, entity, individual) – solution (violence posed as the best/only effective option) model (Amman and Meloy 2021).

These components can only be crafted from disinformation, of which a malignant narcissistic leader is more than willing to create and disseminate in order to contain their rank amidst the group. Because key elements of connectivity joining the participants are

resentment and paranoia, disinformation is utilized to continue fomenting these emotions, as well as trap the group in an exceptional ongoing fantasy based on the hero's journey mythos. This provides a sense of value by gamifying the disinformation (Baker 2022), with individuals engaging in a form of *ludic participation* (Baker 2022) in the conspiratorial in-group's world. This entails encouraging individuals to take their warped beliefs into the real world through actionable behaviors such as weapon stockpiling, enrolling in a paramilitary group/militia, arranging armed marches and protests, and joining local extremist clubs that have in person meetings (Marwick and Lewis 2017).

Convincing the group's members of their importance with "call to action" language, disinformation is used to induce ongoing limbic reactivity, blocking self-reflection, making it difficult for individuals to hold awareness that they are being driven beyond their moral boundaries (Amman and Meloy 2021). As a regressive group is being pulled further toward outright violence, they are also being sequestered further away from rational social spaces and media, with the leader often encouraging them to move to more niche and extremist platforms (The *Pied Piper effect* (Baker 2022)) where a homogenous perspective parallel to their own thrives without challenge. Intervening or tracking the progression of these groups and/or individual radicalization is near impossible from the perspective of law enforcement, as there are so many hosting sites, threads, and encrypted platforms, as well as private closed groups on Big Tech run social media platforms. The vastness of this realm of the internet means there is plenty of open space for organizing. Alongside planning, the more disinformation is dispersed, the more saturated these dark corners become, and the more consistent random acts of violence will dominate the norm through *stochastic terrorism* (Amman and Meloy 2021).

Disinformation uses assertions to establish legitimation of a controversial action by preemptively adjusting followers through rhetoric that compresses time for them, giving the sense that they must act, termed *proximation theory* (Marwick and Lewis 2017). This eradicates internal moral checks and balances that an individual has over their personal choices and behaviors, along with them being (Gartenstein-Ross, et al. 2022)forced through the lens of wanting to impress and remain part of the in-group. Challenging and subsequently choosing against the implicature that disinformation and a leader distributing disinformation are attempting to incept in followers nearly guarantees being exiled to the out-group, which have been deemed clear targets of what is to come. Through acts of disinformation fueled *vanguardism* (Basit 2021), loyal followers within a regressive group vie for the adoration of the group and/or its leader through extremist behaviors. Under the guise of trying to instigate the onset of a mythologized new beginning, they feel justified in evoking a violent disruption that inspires a massive awakening of others who are then driven to join the group's tribalist cause. (This was seen in the Manson murders where they were hoping to bring about a race war. This same intention is vocalized decades later by a multitude of mass shooters.)

Disinformation, unlike honest information, is malleable to the belief needs of the group being fed it, as it is utilized not as knowledge that improves upon the individuals but rather as a tool to corral, excite, affirm, and silo. Because of this purpose, disinformation can be adapted to either existing ideology that it then exacerbates by expanding it in severity, or it can craft an entirely bespoke philosophy that borrows from multiple conspiratorial spaces (seen as "*salad bar ideology*" (Gartenstein-Ross, et al. 2022).) The flexibility of disinformation does not however just lie within the ability to

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adapt its premises, but also with the audience's ability to subjectively interpret what is being conveyed. This works to the advantage of the creators and distributors of disinformation, as this provides plausible deniability when violent events occur that reference the disinformation or its distributor as the inspiration (Amman and Meloy 2021).

Incited violence from disinformation is not exclusive to sinister online groups of radicalizing loners however. As mainstream media has become further polarizing politically and culturally, what has developed from pundits on talk radio, cable tv, and streaming apps is the ascent of stochastic terrorism (Amman and Meloy 2021). Radicalization and the urge to turn to violence as the singular answer to fabricated culture wars has been born out of accessible and popular media platforms. One such example is the radio programs on Radio-Television Libres des Milles Collines. In the years predating the Rwandan genocide, it heavily infiltrated every Rwandan home with a seductive combination of relatable content such as pop music interviews and top 10 song lists, along with hate filled axioms shared between talk show guests that debated the humanity of Tutsis. Often the determination was they were not worthy of being seen as such, with guests and hosts alike demanding the audience see little more than cockroaches. This popular epithet would be what was chanted in the streets at the height of the genocide as mobs of Hutus stalked down their own neighbors and friends with machetes. (McCoy 2009)

This same supremacist centric conversation has poured into American public discourse, encouraged heavily by disinformation relating to the complexity of gender identity, the stealing of elections by opposite political parties, and the teaching of non-

white American history as a form of cruel emotional abuse and indoctrination for children. Because of this, a majority of the American population now feels comfortable with the usage of violence to address political failures, with 56% of Republicans supporting the use of force to reinstate the "traditional" American way of life, along with 35% of independents and 22% of Democrats. 29% of all Americans surveyed believe that if elected leaders will not protect America, the people must do it themselves even if it requires taking violent action (Cox 2021). The threat of violence is not relegated then to onerous geeks obsessively online, but instead has become a pulsing undercurrent in all of our media, and one that is having real effect on the general public perception of utilizing violence to resolve something as negotiable as a preferred candidate losing an election.

Stochastic terrorism currently has no legal definition, it exists outside of the necessary lexicon that is required in order to execute legal accountability, legislation, and prevention. This means that promoters of disinformation through deniable techniques like *disintermediation* (Bessi and Quattrociocchi 2015), can set an audience on a distinct path of targeting a population with curated content that tells the story the creator wants told about that community with impunity and little to no repercussions. The secondary but equally as valuable of an effect that stochastic terrorism has is the ability to fetter the freedoms of the individuals and/or groups who are put at risk by it, such as cancelling drag shows for safety concerns, or a journalist having to relocate their family suddenly because they were featured negatively by a pundit on a segment, driving an army of trolls and regressive groups to maniacally discover all of their personal information in order to intimidate them (Marwick and Lewis 2017).

Removing the sense of general safety in the entire world from anyone so that they must live their lives with a massive number of self-imposed limitations is in and of itself a detrimental violence. Living in a place that is always under the oppressive tension of anticipating an outburst of brutal disorder is an erosion of foundational public health in that community, and because of disinformation and conspiracies we now all experience where we are in this way, especially those who have been identified as the "other".

CHAPTER 3: SACRIFICIAL LAMBS & SCAPEGOATS

"Definitions belong to the definers, not the defined."

- Toni Morrison, Beloved

Misinformation, disinformation, and conspiracy theories are a clear and present threat in society. But the complexity with which these aim at fragment populations, especially those that are vulnerable, minoritized, and marginalized is unique from their standard design. There is an immense longstanding history for Black, Indigenous, and people of the global majority being the central target for medical research and experimentation, neglect from public health endeavors meant to protect and save communities from health dangers, and refused care by health professionals. It is not exaggeration to say that especially for Black and Indigenous peoples, this history has decimated lineages, towns, and families in ways that continues to reverberate through the survivors epigenetically and consciously.

Mis/disinformation and conspiracies have done well to conspire and construct a Gordian knot of fearmongering and blame heaped upon communities whilst simultaneously feeding their well-founded hesitancies toward healthcare establishments and public health initiatives. Mis/disinformation that is specific to disease outbreaks that have origins in communities or countries that are predominantly BIPOC, LGBTQ, and/or disabled, create a false equivalency between the imminent health emergency and the population that it was first detected in (Irfan, Bieniek-Tobasco and Golembeski, Pandemic of Racism: Public Health Implications of Political Misinformation 2021). This implication of correlation creates stigma, blame, and rise in hate fueled events that endanger those within the targeted communities.

This is further exacerbated by the ongoing choice to label a disease or health condition after the geographic region it was discovered in, resulting in institutionally produced misinformation. The compounding of the aforementioned issues has historically caused marginalized communities to be subjected to discriminatory public health policies that were distinctive to that population but did not have mandated adherence for others. Blatant racism, homophobia, and ableism were all able to hide neatly within severe restrictions exacted under the protective mythos of being in the name of bettering public health (Irfan, Bieniek-Tobasco and Golembeski, Pandemic of Racism: Public Health Implications of Political Misinformation 2021).

The most notable examples of this throughout history have been the laws limiting where Chinese immigrants could geographically work, live, shop, and socialize as a prevention for a variety of communicable illnesses, while white residents were allowed free range of the urban terrain. This sentiment would fuel the Chinese Exclusion Act of 1882 (Irfan, Bieniek-Tobasco and Golembeski, Pandemic of Racism: Public Health Implications of Political Misinformation 2021), and the ongoing sinophobic "yellow peril" that has repeatedly reemerged, the most prescient being during the COVID-19 pandemic. After tracing the origins back to a wet market in the Chinese province of Wuhan, the immediately crass and racialized nicknaming of the virus caused severe spikes in hate crimes toward people perceived and identifying as East Asian (Irfan, Bieniek-Tobasco and Golembeski, Pandemic of Racism: Public Health Implications of Political Misinformation 2021). By attaching a disease to a people and not to environment, region, zoonotic cross over etc., the immediate response to try and quell a spread becomes personalized, leading to calls of banning travel, stopping the import of

culturally important industries' resources, and the limiting of significant cultural events and/or community businesses, regardless of whether or not these hold any connection to the cause or spread of disease. Such examples are the growing call to shutdown wet markets in Asian countries and the targeting of gay inclusive bath houses and clubs during the height of the HIV epidemic (Rabin 1986).

News sources and mainstream media outlets hold a key opportunity to inflame or flatten the curve of discrimination toward marginalized and vulnerable groups who are being targeted as vectors of communal health and societal concerns. Mainstream media must recenter their objectives back to being neutral entities of well researched/investigated, ethical, and transparent information in order to combat the proliferation of the moralized panic that ultimately morphs into actionable hate (PEN America 2017). Currently mainstream media entities have chosen to compete with social media platforms for popularity in the attention economy. Leading to a dependency on partisan clickbait and opinion-based punditry driven programming with little accountability for combatting the mis/disinformation that is woven from it, sacrificing information reliability and the safety of these communities (PEN America 2017).

Another sui generis way that mis/disinformation in media enmeshes minoritized groups with public health concerns is through the unthoughtful (and sometimes intentional) usage of accompanying stock imagery that adorns articles, blogs, and alerts. Imagery that is frequently unrelated to the premise in the article or media often depict BIPOC individuals and this visually repetitive relationship unconsciously trains the audience to relate the groups represented in the images with the health information, creating a passive form of mis/disinformation (Irfan, Sifat and Brown, Misinformation,

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Health Equity, New Media: Application of Critical Race Theory (CRT) to Examine News Media's Role in Normalizing Religious Bigotry 2021). This can also be seen in the depiction or alignment of fat bodies with articles and media that directly or indirectly insinuate correlation between them and an exceptional amount of health comorbidities, demonizes those identified by medicalized spaces as "obese". This media obsession with tying fatness to health without the nuance science of adiposity types only serves the never-ending stigmatization that those with larger bodies face everywhere (John Whyte 2010).

The constant overrepresentation of marginalized people in media that aligns these communities with public health challenges has built *racialized state surveillance* (Irfan, Sifat and Brown, Misinformation, Health Equity, New Media: Application of Critical Race Theory (CRT) to Examine News Media's Role in Normalizing Religious Bigotry 2021), a hyper fixated state that presumes these groups to be the producers or purveyors of serious societal issues resulting in biased vigilance from media and government. This vigilance has led to fear from the majority or more privileged members in the overlapping general community, driving accusation and calls for preemption that would rescind or further minimize the human rights of these people. This phenomenon persistently haunted gay men in the 1980s and early 1990s, with calls for individuals who tested positive for the HIV virus to be tattooed, quarantined, and criminalized through laws that carried profound incarceration time (Staley 2014).

More recently, this same cacophony has picked up again toward the transgender population. Hidden under deceitful public health buzzwords and overlapped with the feigned interested of protecting children, the right for transgender individuals to access

medically necessary and lifesaving care has become a favored point of scrutiny and argument. This discuss has been widely taken up especially amidst archaic medical professionals, anti-trans activists, and legislators who have succumbed to dated or intentionally manufactured pseudoscience on gender (Editors 2021).

The abiding effect of mis/disinformation about vulnerable groups is that they are the core producers of stigma, which continue to remain sewn into the fabric of multiple generations, over time contributes to a whittling effect on the livelihood and health of the effected individuals. (Dr. Arline T. Geronimus recently coined the term "weathering" to describe this slow erosion of the health of marginalized individuals due to the mental and emotional hardship of consistently experiencing an unjust society that abuses them.) This is where we see the overrepresentation of cardiovascular disease, violence/homicide, suicide, hypertension, low birth weights, high maternal mortality rates, cognitive impairments, sleep disruption, depression, anxiety, psychological disturbance/distress, and an overall lower life expectancy (Mark L. Hatzenbuehler 2013).

Misinformation, disinformation, and conspiracies are also pumped into vulnerable communities by targeting their identities and the history of public health/research atrocities in order to convince them of a preplanned strategy to eradicate them. This path works well by utilizing rational communal and/or individual trauma built up from prior systemic neglect and exploitation. BIPOC communities are reminded of the Tuskegee experiment, the Holmesburg Prison experiments, the residential school nutrition experiments, the abhorrent research of Marion Sims on enslaved women, and the stealing of Henrietta Lacks' cancerous cells that continue to be used to current day (Frenkel 2021). The history of biomedical science is ripe with examples that mis/disinformation

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and conspiracies easily utilize to inject divisive beliefs into populations already paranoid because of racialized and racist care that has resulted in community decimation.

These kinds of mis/disinformation and conspiracies will use harder to detect social passages to access these groups, like making culturally and linguistically specific memes and media, being distributed on alternative platforms and websites that have a disproportionate representation of certain communities, and passed between trusted friends and family members on international messaging apps. The distribution of this media that targets vulnerable populations spikes immensely when public health initiatives are released, this was seen in full force during the push to vaccinate against COVID-19 with spikes in mis/disinformation and conspiracies targeting Black communities increasing in presence by tenfold (Frenkel 2021).

Accidental or intentional, celebrities who hold prominence within these groups contribute greatly to furthering the agenda of mis/disinformation and conspiracies by regurgitating them on their platforms. Because many vulnerable groups are protective of who they trust to believe, celebrities hold a pivotal position of power as prime influencing entities for an entire group's health decisions collectively. Because of this, these types of celebrities are the perfect vector for sharing mis/disinformation and conspiracies successfully to these populations (Henderson 2021).

Foreign and international media sites also contribute to spreading mis/disinformation and conspiracy theories to marginalized individuals especially immigrant and English as a second language populations who may more closely follow media from sites that are in their language of origin and are more relatable or recognizable. These external media sources have less synchronized oversight or are

backed by adversarial countries looking to capitalize on the effect of exaggerating partisanship through an agenda of supplying conflicting information (Irfan, Sifat and Brown, Misinformation, Health Equity, New Media: Application of Critical Race Theory (CRT) to Examine News Media's Role in Normalizing Religious Bigotry 2021).

Organized entities with political agendas use the technique of incepting themselves into individuals' social media through the advertising spaces. This provides them less oversight and requirement to adhere to community guidelines and give them the ability to use the microtargeting features afforded to paying customers, making the platforms themselves complicit partners in pushing disinformation to vulnerable audience members. This can be further obscured by paying for innocuous ads that pass social media requisites but when clicked are portals to more extremist, misleading, and hyper biased websites that intentionally give fictious medical information (Center for Countering Digital Hate 2021).

The greatest example of this was the spate of reverse abortion adverts that were being promoted across Facebook, misleading emotionally susceptible pregnant people who had begun the process of prescription-based abortion. These were purchased by the anti-abortion group Live Action who offered to halt the process and instead provide the life-threatening, scientifically unfounded option of consuming a medication meant to "disrupt" the process of expelling the pregnancy (Center for Countering Digital Hate 2021). (The original experiment that had attempted to study this medication's efficacy at halting a chemical abortion was abandoned early on when participants experienced damaging and dangerous hemorrhaging.)

The current iteration of healthcare, research, and public health systems have discriminatory foundational designs that have resulted in distinctive health inequities for minoritized and marginalized people, leaving them with very legitimate fears and anxieties of the medical world. Misinformation, disinformation, and conspiracy theories find this idiosyncratic fissure between the institution and populations convenient to the mission of dissemination and believability, especially by those with ulterior motives to take control of these groups' attention, steer them toward self-enriching monetized alternatives, or looking to disintegrate faith in the health sciences because of extremist principles. To capture an injured fox one must offer shelter, care, and trust, but continuing to remind a fox how and where it had been injured guarantees it will avoid that part of the forest.

CHAPTER 4: UNRAVELING

"I can't explain myself, I'm afraid, Sir, because I am not myself you see."

- Lewis Carroll, Alice's Adventures in Wonderland

One of the most valuable talents of disinformation and conspiracy theories is their ability to distort the memory of those who consume them, altering factual, distinctive, or confident information they may originally have had. This ability is known as the *misinformation effect* (Loftus 1992), and renders individuals especially susceptible when combined with the passage of time. The more time that has passed between the initial experience of an event or exposure to information along with the layered addition of mis/disinformation, the more dissolvable that memory is, making it malleable to reconstruction by mis/disinformation and conspiracies. This leads to the *discrepancy principle*, an understanding that recollections are more likely to change if a person does not immediately detect the mis/disinformation between what they originally knew versus what they now know to be true (Loftus 1992).

Mis/disinformation and conspiracy theories also encourage followers to be overly confident in what they know, insisting that they develop a deep immoveable certainty, making them more confident than individuals with accurate information. This extraordinary self-assurance stimulates malignant narcissism in singular individuals and/or an entire group and when coupled with the continued saturation of mis/disinformation and conspiracies, further exacerbates this spiraling. The results of this ongoing warping of the psyche and reality are turning individuals into lone wolves or the devolution into riotous and chaotic group that shares a violent madness in behavior (Hutchison 2010), a *death drive*.

Disinformation and conspiracy laden media contribute to massive group regression by activating mass psychology, this reinforces the narcissistic and paranoid polarities of the culturally dominant ideological systems. Leaders of these groups as well as the participants of the groups themselves promote and reward violence, anti-social behaviors, and influence individuals to engage in violence that is far outside of their singular morality or nature, they are in effect herded into a state of group psychosis (Hutchison 2010). Those who generate disinformation and conspiracy theories clamor for taking the reins of social control, at minimum in order to command ongoing attention from a captive group. What type of groups that emerge from this manipulated point are a dependent basic assumption group or a fight-flight basic assumption group, both requiring further dependence on the disinformation and conspiracies that drove them into this isolated place, along with the leader who conceives it for them (Hutchison 2010).

The mental and emotion toll that is taken on the mind of those trapped in a regressive group bound by disinformation and conspiracy theories are feelings of insecurity, confusion, and never-ending competition that occurs from vying for the attention of the leader or the adoration of the group. This emotional state feeds a hyper alert state in each member, who then displays worsening tension driven defensiveness and aggression (Kernberg 2008).

As mentioned in Chapter 2, regressive groups form around a collective state of purposelessness. Although the group provides the boundaries of the "in-group" and "out-group," it does not offer much else by way of structure. This maintains their shared relationship of being taskless, which often develops into a dependent sense of feeling in danger and living in chaotic times, which they will blame on an out-group rather than

their current chosen state. Any attempt to restore a semblance of rationale through reflective questions or exercises, probing questions, or invoked analyses will usually cause other members to develop resentment, envy, and hatred toward them. Further attempts to pull the group out of its regressive-ness or question the disinformation and conspiracies that are the core foundation of their connection are more likely to throw that individual into the out-group, causing isolation and social impotence as the group turns to immature, cruel, or destructive treatment of them. The fear of this occurrence, being cast out of the in-group, sends the mental health of the collective group into a descent fueled by the collective persistent fear of the out-group but also the ongoing volatility of each other and a leader (Basit 2021).

Disinformation and conspiracy theories craft a world around a group that extends a feeling of being taken care of, a maternal/paternalistic need to feel safe with someone at the helm of their lives as a leader offers them. Disinformation and conspiracy theories offer simplistic reasoning for their issues and provide finite answers to those problems, appealing to the epistemic needs of the followers. It is the attempt at quelling anxiety, depression, and fear that makes groupthink and disinformation and conspiracies more appealing (Debski, et al. 2022), a satiation of a feast crowd.

Because of how mass media is shared (and the subsequently unconscious presumption by a reader/audience that they are consuming it simultaneously with others, making them feel part of an inconspicuous group) creates mass psychology or a mass psychological experience, thus affecting meta issues in culture like politics, economies, neighborhood tensions, etc. Mass media adjoins a physically fragmented group through the fact that they are simultaneously receiving a communication together, and this

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inflames the belief (sometimes as far as to delusion) that they are in fact part of a massive

population, as large as they need to imagine feeling powerful (Kernberg 2008).

Mis/disinformation in mass media activates the latency aspect of mass psychology,

driving individuals toward more primitive psychic functions such as a fixed definition of

what is "good" and what is "bad" intolerance of nuance or ambiguity; splitting the abject

world into idealized and persecutory figures; a deeply held and dedicated belief that the

bad must always be punished (usually through violence) and the good will always

triumph; an intolerance for emotional depth, complexity, and empathy; and an investment

in forcibly adapting themselves and others to group mores, norms, and values as a way to

manufacture an identity for themselves (Kernberg 2008).

The uninterrupted absorption of misinformation, disinformation, and conspiracy

theories destroys communal and individual mental health, but those who are the

centralized topic in them also suffer to great effect. Mis/disinformation and conspiracies

toward public health threats utilize stigmatizing and blame centered language that singles

out and attributes this threat to marginalized populations. This stigmatization and false

causational inference induce discriminatory treatment and incidents toward vulnerable

communities. Living in fear of rising targeting due to mis/disinformation and

conspiracies, the long-term trauma inducing tension ravages communal mental health

(Irfan, Bieniek-Tobasco and Golembeski, Pandemic of Racism: Public Health

Implications of Political Misinformation 2021). An ascent of reported depression and

anxiety occurs amidst these marginalized spaces, a corrosive persistent chipping away at

mental and emotional stability.

Mis/disinformation and conspiracies that are built around public health issues or imminent threats to the health of communities intentionally raise concerns toward healthcare professionals and systems/institutions, resulting in a surge of intimidation and mistreatment of these people and spaces. The effects of this on healthcare workers is an acceleration of depression, anxiety, burn out, and suicidality amidst these individuals who are the most critical to the provision of medical care. The fallout being a dearth of these professionals available and in critical positions, imperiling quality of treatment resulting in worsening outcomes and access for patients (Borsa-Curran 2022).

There is strong correlation to an individual's pre-existing anxiety and depression as susceptibility factors to mis/disinformation and conspiracies, but they are also related to the severity or expanding development of these mental/emotional health disorders over time. The worse anxiety or depression becomes for followers of mis/disinformation and conspiracies the more they seek them out, becoming a closed loop of generating and exacerbating the symptoms of these which further make individuals cling to beliefs deeper. This merry-go-round of self-inducing depression and anxiety draw individuals to coping mechanisms as escapism, leading to the increase of alcohol consumption and acted out rage or aggression (Roy H. Perlis, et al. 2022).

Disinformation and conspiracies that invoke disgust, anger, fear, or anxiety have the greatest reach on social media, as they move the most successfully through sharing and boosting of the content. The high rate at which this particularly type of media can be shared is an incentivizing factor for creators of disinformation and conspiracy theories, causing them to focus almost exclusively on producing media that evoke these emotions for followers and potential consumers (because disinformation and conspiracy theories'

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success are dependent on attention no matter what kind, even the act of "hate-watching" encourages the development of incendiary media as well because it incites engagement with it.)

This inundation of negative, extreme, and intentionally fear or rage inducing media on social platforms has a deleterious effect on mental and emotional health (Roy H. Perlis, et al. 2022) of everyone who encounters this media regularly, whether in support of it or not. Depression and depressive symptoms correlate with negativity bias, which aligns to a greater receptivity of mis/disinformation and conspiracies, all of which make the mental health of followers worse by being trapped in a cycle of intensifying symptoms that stimulate their urge to continue absorbing them. The longer we allow for the unregulated proliferation of misinformation, disinformation, and conspiracy theories on open access social platforms, the more we guarantee an astronomical decline in mental well-being alongside an epidemic of mental health related disparities for a substantial portion of the general population.

CHAPTER 5: INFODEMIC INFECTION

"Truth isn't outside power."

- Michel Foucault

No matter the size of a community, whether it be a tiny hamlet on a remote island or a vast, sprawling cityscape that international commerce must pass through, everyone everywhere engages in the necessary diffusion of information. This organic component of society has become supercharged in the last decade with the ubiquity of the internet, the advent of social media, and the portability of accessing both through cell phones and Wi-Fi. During the height of public emergencies, this urge to seek out information as a means to stay safe, check the location of loved ones, and try to find information to learn more about what is going on is immediate for all. But with demand climbing, so too will bad actors find an opportunity to capitalize on it by becoming a supply point. With attention being a critical form of commerce in virtual space, the ability to fill voids and carve out niche space in the empty complexity of social forums becomes about quantity and control, not quality and discernment. Filling the space with misinformation, disinformation, and conspiracy theories promises product movement, but inevitably causes societal stagnation.

Misinformation, disinformation, and conspiracy theories alter individuals' attitudes toward emergent occurrences by distorting how data and scientific evidence are presented, especially utilizing the doubt and imperfect answers that come with honest transparency. The intent is to induce polarization and echo chambers that re-enforce the mis/disinformation and conspiracies, while pumping in tools of misguidance (like anecdotal evidence) in order to extend legitimization to them. There is also the promotion

of fear and panic that drive people to seek emotional safety in these echo chambers filled

with mis/disinformation and conspiracies that offer more finite or fulfilling answers

rather than the truth which may be complex and unable to provide immediate solace.

Mis/disinformation and conspiracies are also used to decrease the ordinary credibility that

experts and knowledgeable sources are accustomed to having in a crisis. Part of that

process to discredit is to fill the proverbial information market with confusion by

drowning it in opinionated non-expert punditry and popular personality/celebrity voice

who hold the power of audience attention without any learnedness on the subject. These

characters constitute cancellation via cacophony, drowning out the necessary information

and expertise with their own ability to weaponize algorithms, rage farming, and fast mass

production of transferable media.

In playing off of the dated theory of the *marketplace of ideas*, (when looking over

the effect misinformation, disinformation, and conspiracy theories have on behaviors and

beliefs) this concept has since been dismantled as applicable by current social

technologies and communication highways. Instead, what now exists would be better

termed a *fast-food chain of ideating*, where concepts are simple, neatly packaged for easy

consumption, relatable, recognizable, made of cheap ingredients, comforting, and

encountered more frequently because of the barrage of locations that it can be acquired.

What misinformation, disinformation, and conspiracy theories do to the general

public's health is not the prevailing concern of those looking to take over the open bazaar

that is virtual social platforms. It is making sure that the largest swath of the geographic

territory where information exists online is at best owned by the creators of

mis/disinformation and conspiracies, and at worst a haunted mansion of disorientation

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that cannot be easily escaped by a lay person. Cluttering the social sphere with useless and neutral information along with misinformation, disinformation, and conspiracies weakens expert based information, overwhelming consumers who in response passively stop engaging or staying up to date in learning more about the developing health crisis. This exhaustion based apathy results in a mixture of members in a community following and not following safety guidelines, supporting best behaviors, and passing information to those they are in communication with but may have limited access to other sources.

What had been growing steadily but took a sudden sharp turn upwards with the onset of the COVID-19 pandemic was a parallel issue that would directly affect public health endeavors to address it; an *infodemic* (Briand, et al. 2021). In order for an infodemic to form, two overlapping issues must appear; 1) a high volume of information being generated (with little management, oversight, or control) and 2) the high velocity at which it appears (and is shared.) (Zielinski 2021) The climate of polarization and chaos that are the crux of an infodemic cause ongoing attenuated trust in governments, public health, and medical institutions, often without any clear way to re-establish confidence.

Infodemics affect health and acute medical care along with medical research resulting in a decrease of access, as those working in these industries are not immune to the persuasiveness of mis/disinformation and conspiracies. Other life altering outcomes are the misallocation of provisions and resources; an increase in burnout and job stress causing massive turnover of staff and provider exodus; a rise in prevention, treatment, and care hesitancy in marginalized populations with people being sicker when they finally seek help; and an explosion of the alternative health markets selling or promoting

unregulated substances and treatments causing injurious poisonings. (Nascimento, et al. 2022)

Social media platforms supply the greatest bridge between colporteurs and a captive anxiety riddled audience with little to no oversight, and it is here much of the damaging commerce occurs as well as the development of a strong, dedicated following. These hucksters target those that are worried and have low health and science literacy, of which many are elders, people who speak English as second language, those with less education, and those who are in more impoverished realities. Social platforms connect these groups together in a way that allows for uninterrupted victimization through selling illicit unregulated substances in an attempt to enrich oneself off the fears of another (Nascimento, et al. 2022).

There is a substantial presence of misinformation, disinformation, and conspiracy theories on user generated content platforms such as YouTube, with an estimation that between 20-30% of the videos currently posted about infectious diseases contain inaccurate, misleading, or completing fabricated information (Nascimento, et al. 2022). Misconceptions cover a wide range of subjects within disease and health, such as vaccine production, vaccine administration, the conflation of illnesses and their treatments, and claims of cure-alls for chronic and infectious diseases simultaneously. The most prevalent occurrence in an infodemic is the erroneous interpretations of scientific data and knowledge coupled with divisive opinions that escalate fears.

The spark for an infodemic, an *inforus* (Gao 2022), usually appears from a "zipping" of accurate information and mis/disinformation together, either intentionally or by mistake, which is then released into open information markets to "infect" others. The

inforus is not just crafted from this merger, but also from the audience interpretation of the shared message, data, or information. (Gao 2022) This interpretation can be perceived in a multitude of ways because of varying factors; cognition, misinterpretations, how it is being presented, the media it is presented through (blog entry, a meme, a video post, etc.), emotions, education, and language. The information contained therein is also seen as "true" or hostile based on whether or not it affirms the pre-existing beliefs (confirmation bias) held by the individual consuming it (Chiolero 2022). All information goes through this process of rendering, and mis/disinformation is more successful slipping past this point and into distribution as it is often more understandable, relatable, and affirming than honest scientific messages.

Inforuses, like biological infections, are subject to a highly swift rate at which they mutate to better fit and navigate around trending issues, topics, and popular beliefs as well as the different executed designs of each social media platform. Along with the community guidelines and policies that most creators of disinformation have learned how to adapt and evade, mis/disinformation and conspiracies move faster than any attempt to track and isolate them from further spread. This spread is becoming more rapid and fragmented due to the continual niche circulation that is transpiring as creators of disinformation become savvier at leading followers off major platforms and on to smaller ones that they have more control of or less platform regulation on (Baker 2022).

In the midst of a public health emergency, infodemics contribute to difficulties both when responses are successful and unsuccessful. Infodemics slow and/or delay the response of authorities because of the confusion and chaotic fact sharing, causing a larger emergency to develop that may be too profound to address. Conversely, when a public

health emergency does experience a quick, thorough, and successful response, the mis/disinformation within the infodemic then causes an upsurge in incredulity that there was ever an issue to begin with, a denial of the incident in totality (Briand, et al. 2021). The disbursement of mis/disinformation in a public health crisis, especially one where an infodemic is also present, creates a loss of logical cause-effect linkages, with disbelief and conspiratorial thought gaining traction.

The infodemic space could be harnessed for positive, if enough experts and educators were able to consistently produce media that is universally understandable, debunks or pre-bunks against mis/disinformation, and challenges those looking to monetize on alternative health substances and services that are not regulated or safe. All this change would require is the utilization of the same posting, sharing, and follower building techniques that creators of disinformation use but instead can be hijacked by health and medical professionals who then harness the power afforded by them.

As it stands currently, experts and professionals (especially those in academia) have passively contributed to the quagmire of online infodemics by writing a deluge of repetitive, neutral, and uninformative papers and reports that have given great cover to mis/disinformation in particular. (Chiolero 2022) The pressing and competitive requirement for academics and professionals to be persistently publishing has contributed to the oversaturation of the market, muddling everyone's ability to easily find clear and concise helpful information. Going forward, this community specifically needs to reflect on the abundance of articles, meta-analyses, and opinion pieces being produced that ultimately wreak havoc on other health professionals' ability to get information to the broader public.

Mis/disinformation and conspiracies stir toxic individuality through perceptions of preventative containment measures and policies as somehow an infringement on civil rights, inappropriate, and/or political instead fact based or rational (Nascimento, et al. 2022). This ultimately minimizes the engagement with and efficacy of these efforts. These beliefs stimulate poor behaviors that combine with the emergent event making people less safe and sicker. An infodemic that is afflicted extensively by mis/disinformation and conspiracies mask high quality, accurate new information in the thick of poorer data quality but higher attention grabbing or entertaining punditry, commentary, and opinions. The environment of an infodemic gives expansive cover to mis/disinformation specifically, as well as minimizes or suppresses necessary and valid information that officials are trying to get out to communities (Zielinski 2021). The reverberation on health that infodemics have by drowning accurate information in a sea of mis/disinformation is irreversible; it silences through the act of making the most sound.

CHAPTER 6: POLICIES, PROTECTIONS, AND POLITICS WALK INTO A BAR…

"The strain of anti-intellectualism has been a constant thread winding its way through our political and cultural life, nurtured by the false notion that democracy means that 'my ignorance is just as good as your knowledge."

- Isaac Asimov, A Cult of Ignorance

The debate over the effects of misinformation, disinformation, and conspiracy theories continually stall out at the circuitous premise of freedom of speech. This stopping point in the conversation is, when taking into account all that has been read in the prior chapters, an asinine straw man tangent that has become the prevailing point. There is also the ongoing apathetic discourse of openly questioning whether or not misinformation, disinformation, or conspiracy theories have any bearing in real life, with many more seasoned, long term, or older people in positions of power condescendingly minimizing these as simplistic miniscule communities of fringe peculiarists that hold no power or affectation offline.

It is this dismissiveness that has given full allowance to the ways that mis/disinformation and conspiracies have infiltrated and now sculpt public health, health care, and medical policies as well as legislation targeting humans rights on the basis of anti-intellectualized interpretations of medical science and research. In the current political climate, mis/disinformation and conspiracies are a dominating force swaying representatives and administrators at all levels of government, who have been inflated with confidence that they are the more informed opinion on the complexity of health sciences. They are steadfast in this belief even when confronted directly by dedicated,

trained individuals who appear before them to give testimony and insight on concieved

regulation that will directly effect their ability to ethically and safely practice medicine.

The ongoing argument on whether or not social media is a leading factor in

political agenda setting in and of itself influences consumer decision making and

information absorption. In picking through the 2016 election cycle's presence on social

media, what can clearly be seen was the amassing of vast datasets (this had also been

done in the 2012 election cycle as well); the development and execution of

microtargeting tools (with little to no oversight of the truthfulness or accuracy of the

microtargeting ads); and the collection of cached data of user behavior on these

platforms. In tandem with these tools, troll and bot farms along with real high profile

disingenous accounts carried organized *memetic based campaigning* that saw fit to stoke

devision and encourage extremist political view points (Cunliffe-Jones, et al. 2018). This

technique as well as the champions of this activity have only seen fit to exponentially

ramp up these dealings since then, particularly during the COVID-19 pandemic.

Recently mis/disinfomation have been intentionally contracted by different

culturally political groups and candidates to devise and propagate online to affect

opposing parties' candidates and their ratings, supress voter turnout for opposing parties,

and inflame polarization that activates their base. Different third party data companies

offer differing services to develop these for clients, with the most infamous example

being Cambridge Analytica (Cunliffe-Jones, et al. 2018). In referring back to the prior

chapter, social media companies incentive to push incediary media because of how it

supercharges platform engagement far outweighs any presumed ethical duty to extinguish

mis/disinformation and conspiracies, chiefly those that pertain to politics.

Along with the user generated and posted media, ads placed on social media utilize the tools afforded to them as paying clients to microtarget politically pertinent communities. These are often are marginalized and vulnerable groups who can be encouraged through disinformation to disengage with politics, become paranoid of political entities, or be misled about their voting location/rights/dates so they miss being able to vote (Bond 2020). This political disinformation is able to get even more traction when combined with other activating topics such as medical disinformation. The tactic of making medical disinformation that is aligned with a party or political ideology rouses errant individuals as well as organized groups of people to rally, protest, and influence politicians. These representatives in more modern times have become reactionary in their governance because of the ability to cheaply raise their profile by caving to trending or viral grievances.

Reactionary governance to disinformation aroused activism means that the rest of the community is at the whims of the loudest of the population not the most informed, educated, or knowledgeable. This kind of legislating to the shifting embittered fad concerns that have been fomented by disnformation instead of weighing complaints against expert approved research, science, and opinions imperils everyone with the limited possibility of helping one person's career. For the totality of society to be ruled by vitriol that can be ignited in an ill-informed portion of the populace regulates us back to the dark ages of witch burning and presumption that the earth is the center of the universe. The amount of time, energy, resources, and lives that have been sacrificed for us to know things assuredly can all be rendered for nought by simply distributing and empowering propaganda that denies their findings and value.

Politicians and those who work in governance have a moral obligation to be highly informed of the issues but also aware of how to ascertain the facts of a matter. However, less and less this is the caliber of leadership government is acquiring, instead individuals with premeditated motives and penchant for spreading disinformation and conspiracies clamor for the mantle of power. They achieve their roles by weaponizing the aggression and aggrieved attitudes of supporters and while simultaneously wearing thin and causing disengagement of those that oppose them. This drowning of voices and the participation of people who conflict with their invented world view serves their purpose equal to the viciousness of their base, because it lowers the threshold needed to win, leaving communities exposed to the now plausible reality of minority rule.

Winning by grievance also means you must govern by the same mechanisms, which puts mis/disinformation in the driver seat of public health policy and medical regulations. Frequently when endeavoring to influence politics and legislation disinformation uses the "freedom to" rights argument while eradicating the parallel rights premise of "freedom from", instead mashing them together to serve a biased purpose (Dijn 2020). What this can look like is the synchronally occuring debates over forcing a doctor and/or pharmacist to prescribe ivermectin to a patient requesting it versus the fight to end mask mandates during the COVID-19 pandemic. The same purveyors and promoters of both issues were demanding the freedom to be given a medication at simple command of a patient (more and more intepreted to mean customer) regardless of the hesitations or expertise of a health professional while also spouting their freedom from being forced to wear a mask against their will.

In both cases, the concept of "freedom" was merged into a singular (stolen) slogan that made similar sense when applied to both topics; "my body my choice". These issues all became housed under the "Medical Freedom" movement, with Facebook pages, rallies, protests, and conferences cropping up to promote both side by side (Hotez 2021). As it stands this is an egregious misrepresentation of the democratic design and how it is interpreted in law, a more accurate depiction of medical freedom would be; freedom to receive safe and effective medical care by having licensed doctors and pharmacists do their due diligence in prescription safeguarding; freedom from being forcibly exposed to a deadly virus in public space without any attempt at mitigation.

Disinformation and conspiracies becomes useful tools of oppression legislation design through spurious sourcing and confirmation bias by providing language and "proof". More recently this has has been a key construction in crafting and supporting bills that seek to strip away the rights of transgender children and adults, access to safe abortion services by pregnant people, and limiting of free speech rights for teachers and doctors who are attempting to give appropriate and accurate information to students and patients. Using pseudoscience, debunked research reports that have been proven deceitful, and misrepresenting professional credentials of witnesses that politicians with hyper partisan agendas now turn to muddling the concept of expertise to serve their linear purposes (Kinsella, Boland and Rube 2021). (In example, having a witness give testimony against prescription based abortions who uses the title of "doctor", but does not have background or training in obstetrics, gynocology, pharmacology, or with little to no training in any form of allopathic medicine that would qualify them as having an informed opinion on abortive healthcare procedures.)

Mis/disinformation that is believed and supported by a substantial portion of the population (including lawmakers) can actively persuade and lobby members of governing bodies to implement policies that are antithetical to best practices or health outcomes. Crafting this kind of anti-intellectual, moralized, dominion-based care compromises the health of the entire society and the careers and licensing of medical and public health professionals, leaving lasting effects across generations.

In Missouri, the state legislature passed a bill that prohibits pharmacists from informing patients about the danger of ivermection or hydroxychloroquine sulfate tablets. The bill also protects medical professionals who are dispensing or providing prescriptions for both of these controlled substances from being held accountable (no matter how nefarious they are discovered to be) by barring the Missouri State Board of Registration for the Healing Arts from being able to take action against them in relationship to those activities (Woodbury 2022).

This began early on from the excessive sharing of theoretical treatments for COVID-19 where ivermectin and hydroxychloroquine sulfate came up as suggested medications briefly. These two substances (which are easily accessible over the counter in different formulas through aquatic care chemicals and agrarian livestock supplements) became a fixation point for creators and spreaders of COVID disinformation. Growing in popularity amidst followers of these silos, people suffering from severe symptomatic COVID began requesting both when hospitalized, becoming irrational and aggressive when doctors attempted to provide accurate information about the lack of efficacy as well as the dangers of mixing certain medications or treatments with either of these.

These disagreements with medical experts became a flashpoint of activism in some communities, with individuals sharing their stories in their disinformation echo chambers using key buzzwords that ignited others to share their media, contact their representatives, harass the professionals, and file lawsuits against them (Ebert and Reed 2021). The demand for ivermectin and hydroxychloroquine spiked more as a faction of iniquitous doctors sensed a chance to capitalize on a demand by offering telehealth style appointments where they were willing, for an out of pocket price, to write a prescription for either of these medications (Bergengruen 2021). This emergence of medical grifters peddling disinformation intentionally in order to profit prompted complaints being lodged to medical boards that manage and have oversight of licensing. With this level of information chaos, representatives cowtowed to angry constituents who insisted their rights were being infringed upon by not being prescribed a medication they requested despite being repeatedly informed of the uselessness and risks involved in taking them.

What this medical regulation designed off the outrage of a disinformed collective has done is create in effect 1) a carve out for these specific medications having no real oversight of their distibution, abuse, or usage 2) a requirement for both doctors and pharmacists to ignore their ethical training to do no harm (nonmaleficence) while prescribing/filling prescriptions without offering necessary safety information 3) created a pathway for similarly sized protestation to effectively inact other hazardous regulations that further limit medical professionals' ability to provide the best care (beneficence.)

The Missouri legislation is far from an anomaly in this arena. In Ohio a bill was brought before the governing body to require health departments to promote and increase access to ivermection and hydroxychloroquine, and those that refuse gave citizens the

right to sue them directly to force their conformity. (The Ohio Board of Pharmacies had previously issued a warning of the surge of poisonings related to livestock formulated versions of these medications and the dangers of taking them without reason or a Physician's direction.) (Zuckerman 2022) In the Montana legislature, a bill was submitted that would ban anyone who had been vaccinated from knowingly donating "whole blood, plasma, blood products, blood derivatives, human tissue, organs, or bones" (Kmetz 2023). The fallout of such a bill's passing would reduce the available pool of already scant donor tissue, leaving those who are acutely injured, in need of surgical intervention, or ill at risk of complications that have standardized and safe treatment but no resources to adminster it.

With the existing transplant market already suffering from the COVID-19 pandemic that depleted blood banks, and the organ donation realm miniscule compared to the ongoing need (which was also exacerbated by COVID sick individuals who's organs failed from fighting the infection) this bill is a guaranteed death sentence for already acutely sick people in the care system. It would be asinine to suggest after looking at the language of this bill that misinformation, disinformation, and conspiracies pertaining to the the treatment of COVID-19 and the COVID-19 vaccine have not fully infiltrated the governing sphere in a deleterious way that will make people sicker with less chance of receiving life saving care.

Misinformation, disinformation, and conspiracies theories don't just instigate legislative action, they can also prompt intentional disregard of a public health concern or myopic perspective of healthcare provision, which spawns a public health crisis. In South Africa in the early 2000s, the then president, Thabo Mbeki enthusiastically endorsed

conspiracies about the HIV/AIDS epidemic, going to so far to also appoint a health minister who supported his claims that the US government and pharmaceutical industry were colluding with one another to inflict a flood of noxious drugs on Africans with the intent of weakening the country. The president's appointee to health minister, Manto Tshabalala-Msimang, delayed the dissemination of preventative medication and antiretrovirals to the South African population that resulted in hundred of thousands of deaths due to advanced AIDS and AIDS related opportunistic infections (Nattrass 2012).

A similar incident would occur from malignant negligence combined with religiosity based governance in Scott County, Indiana in 2014 after then Governor Mike Pence passed legislation rescinding state funding from Planned Parenthood. This had been a focus of his for the entirety of his political career as a dogmatic Christian anti-abortionist. Governor Pence first suggested rerouting Ryan White funding in his state to conversion therapy, falsely asserting without proof or functional plan of action that coverting people away from being gay was an effective deterrent for addressing HIV transmissions (Nichols 2016). Later in his tenure the success of defunding Planned Parenthood forced the closure of their smaller satellite clinics throughout the state that were primary healthcare facilities for several rural counties, particularly for prenatal and sexual health (Clarke 2017).

What resulted from the loss of these clinics was a lack of places for individuals to get tested and receive free prophylactics for prevention and management of sexually transmitted diseases, so people didn't. In time an outbreak of HIV in Scott County emerged that was so severe the CDC had to be called in and begrudgingly the Governor had to proclaim a public health emergency. The CDC would later find that if the Planned

Parenthood clinic in the region had not been closed, or if a public health response had been inacted in January of the year prior when the uptick in cases was first observed, less than 10-50 infections would have occurred instead of the over 215 confirmed in a population of just over 1,000 (this number is now presumed higher, as this data is from a 2018 report.) (Gregg S. Gonsalves and Forrest W. Crawford 2018)

Not only was the health of a community compromised by systemic changes based on one temporary leader's personal religious doctrine, but the choices that were made ended up wasting resources in order to disrupt an outbreak rather than prevent one in the first place. This is a common effect of mis/disinformation in government where there are limited budgets, time, and energy that can be used on an laundry list of ongoing communal need, but instead are eaten up on proverbial snipe hunts and disproven/invented problems (Hochschild and Einstein 2015-2016).

Misinformation, disinformation, and conspiracies create two separate issues in policy; the use of wrong information and the failure to use honest or correct information. What constructs these issues are how politicians, lawmakers, and governing professionals engage with two distinctive options; ignoring correct information in favor of mis/disinformation, or truly believing and referencing incorrect information because of a lack of ability to identify it. Although both of these imperil the wellbeing of every person who is at the mercy of their dispensation, it is those that consciously choose mis/disinformation that must be upended from power as they cannot be reasoned with on the basis of ethical obligation.

The continued proliferation of misinformation, disinformation, and conspiracy theories in politics creates eminence for them, and always in the minds of voters. As long

as there is discussion or debate with no finality, they will remain pertinent to voter

opinion. This becomes advantageous for leaders to exploit, as they can malign

constituents against an opposing party member by attaching them to the provocative

issue. This aids bad faith candidates and campaign tactics, and can go insofar as

rewarding these politicians that find a way to harness and promote mis/disinformation

and conspiracies that advance partisanship within a voting population (Hochschild and

Einstein 2015-2016).

Minsinformation, disinformation, and conspiracy theories in government shifts it

away from a truth and facts based design to an attitude and remonstration based one. A

democracy cannot remain systemically healthy if it is run on contempt-centric policy,

with the core outcomes being to inflict harm or refuse support for anyone who has had

the unfortunate luck to be deemed part of the out-group. Governance that is

systematically removing or inpugning provisions to its people will sequentially drive out

skill and talent, these brain drains have toppled well established democracies and

authoritarian regimes because the execution of necessary procedures and agencies for a

civilization to function crumbled under the weight of croynism and insipidity.

It is imperative that those who are trained and knowledgeable in the subtle

distinctions of public health and medical care as well as the decisions that must be made

every day in order to protect and safeguard life, have a more committed interest to

challenge, correct, defend, and testify on behalf of the science. Leaving the responsibility

of developing and enacting laws to those who are excruciatingly less scientifically

literate, strongly susceptible to mis/disinformation and conspiracies, and can benefit

greatly from deciding what truth should be used to design and legitimize those laws limits

everyone's access to effective and safe healthcare, thus shortening all lives.

CHAPTER 7: C.R.E.A.M. - (CONSPIRACY) CASH RULES EVERYTHING

AROUND ME

"Choose your leaders with wisdom and forethought. To be led by a coward is to be controlled by all that the coward fears. To be led by a fool is to be led by the opportunists who control the fool. To be led by a thief is to offer up your most precious treasures to be stolen. To be led by a liar is to ask to be told lies. To be led by a tyrant is to sell yourself and those you love into slavery."

- Octavia E. Butler, Parable of the Talents

Understanding health and health information has always been an arduous task for the general populace. At the advent of vaccination when Edward Jenner first began inoculating individuals against smallpox by infecting them with cow pox (Beaubien 2015), the ability to understand the science of how, why, and for what has escaped the understanding of most people. Without the guidance of experts and professionals who have developed a skill for educating, what much of the public ends up existing in is an obscured state of searching for answers that they can make sense of. Jenner understood the science behind using cow pox infections to ward off the more deadly smallpox, but there were those who took this approach to mean that inevitably their bodies would instead erupt with pustules that cows would come oozing out of (Beaubien 2015).

This chasm between those who know and those who don't (known as a *healing vacuum* (Nattrass 2012)) has provided a particular opportunity to a host of carpetbaggers, all of whom have a clear goal; making money. The creation of the internet brought about a large cultural shift in the way health and illness were experienced, and it because of this change charlatans, gurus, self-help profiteers, amidst a myriad of others have been able to

grow in scale and reach. Pre-internet, the ordeal of illness was private, personal, and protected. Individuals valued medical care that came with the professionalism of discretion, with patients also having to shoulder the burden of suffering in silence. As access to the internet became more user friendly and ubiquitous, individuals began to seek out more answers, support, and further resources in regard to their health, especially their illnesses (Conrad, Bandini and Vasquez 2016).

There are five major domains that drive people to use the internet, more specifically in the process of seeking peer to peer connection: 1) finding information 2) feeling supported 3) maintaining relationships with others 4) affecting behavior 5) searching for health services (Conrad, Bandini and Vasquez 2016). (Some of the more prolific internet users are those managing a chronic illness and/or disability, as they are prone to all of the drives.) With the internet illness became a public concept, where it is shared, mulled over, discussed, and made the connective theme amongst groups. People seek out remedies, medical care suggestions, wellness routines, and health insights in an attempt to improve the way they are feeling and make sure they are doing what is best for them.

Naturally the progression of these inquiries along with the introduction of social forums and media built over time subcultures and communities. It is here that misinformation is spread, and profiteers sought to infiltrate to acquire a base, manufacture trust, distribute disinformation and conspiracies, and in the end financially benefit. Social media interrupted the longstanding relationship of doctor to patient, by making others more available, seem less hierarchical, and attractively simplistic. On top of this interjection, disinformation, and conspiracies sow distrust in the medical

community by encouraging over scrutinization and fanciful *scientism* to cleave patients away from their medical providers. Profiteers encourage more individualism in their disease management by suggesting catchall generic ideas around lifestyle changes, alternative diagnoses, "natural" treatments, and "holistic" or "homeopathic" treatments (Conrad, Bandini and Vasquez 2016). These treatments frequently are a hodgepodge of Indigenous and/or Asian historic practices with some foundation embedded in cultural practices but are then blended together to promote the easiest and most monetizable elements to an audience craving care, wellness, and some spiritual fulfillment.

In order to redistribute individuals' attention and where they spend money, profiteers dispatch disinformation and conspiracies that insinuate that the standards by which medical professionals operate are in fact tied to odious conduct and is hiding malintent. Because disinformation and conspiracies as well as the creators of them are more accessible, more pervasive, and move faster in responding to followers they are seen as the more trustworthy and transparent authority on health science. What cannot be well understood by patients is that many of the practices medical professionals engage in are important elements of having their best interest and privacy at heart but are read as callous or uncaring.

The alternative health sphere is vast, consisting of beauty, diet and exercise, spirituality, antivaccination, naturalist or "crunchy" aging hippie movements, yoga and healing, and trauma/inner child/past life work. Online these individuals use the perception of ordinariness to gain unwavering trust, relatability, and loyalty from followers. This technique is practiced exceptionally well by social media influencers and by promoted pundits or consistent alternative health guest stars on mainstream media

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shows. Profiteers can wear multiple hats, and frequently use their successes from another career to lend legitimacy to their alternative health endeavor (Baker 2022). (This looks like Gwyneth Paltrow starting Goop after over a decade as a well-known and recognized actress, Dr. Oz promoting unregulated alternative health substances and supplements on his talk show after being a relatively talented heart surgeon, etc.)

There are three dominating techniques that profiteers of disinformation and conspiracy theories that are used as missives to create, grow, and sustain consumers; 1) the [persecuted] hero 2) micro-celebrity status and 3) calling followers to participate with them on their "wellness journey", "detox", etc (Baker 2022). Profiteers curate a perception of themselves (and by proxy their products/services) that looks honest, familiar, and provides a sense of caring closeness and fabricated authenticity. By producing media and engagement that intonates vulnerability, profiteers are seen as benevolent stewards that are invested in a follower's improved health.

This display of being average and the audience on social media's motivated interest to see people who a similar to them is known as the *demotic turn* (Baker 2022). It is this concept that makes it easy for profiteers to separate themselves from large scale corporations and mainstream media, as well as demonizing larger health and pharmacological systems. As it should be well noted here, these systems have earned extensive scrutiny and critique as they are built upon capitalistic gain and not benevolence. However, the alternative health profiteer is not attempting a nuanced discussion of equitable access or price gouging, but rather is invested in peeling people away from health and medical systems entirely with the goal of positioning themselves as opposite yet equal to these experts and institutions.

As the altruistic alternative to "Big Pharma," profiteers set to work offering a compendium of items for sale at inflated but scaled price ranges, as well as amenable ways of paying (like installment plans, suggesting types of loans, etc.) A substantial risk to followers of profiteers is the structural inequalities between the two groups, as profiteers promote disinformation and conspiracies that they also have the means by which they can get access to resources and healthcare if ultimately needed. These influencers, should they end up in a situation where they must combat an illness that is the result of them taking their own advice, usually are financially profound enough to suffer the health consequences of being wrong and recover. Believers on the other hand are frequently from underprivileged groups (socioeconomically) and lack this same access to resources that may be needed as the fallout of making medical decisions off of disinformation or conspiracy theories.

This model of profiteering is not isolated in social media or internet subcultures, it can also be seen in mainstream media and prevalent tv and political personalities. The most overt example of this is during the beginning of the COVID-19 pandemic when many Republican politicians including the then President Donald Trump (Sprunt 2020) began to turn tide and fight mask mandates and quarantine policies. At the height of this fight Trump fell ill with COVID, and was life flighted by presidential helicopter to a special suite in Walter Reed Medical Center, where he received the most extensive and committed care available in the nation. Meanwhile, his base following was being decimated by the virus, as they fell sick at Trump rallies and from their own individualistic behaviors where they refused all preventative actions. (A similar example is Joe Rogan (Romo 2021), who promoted debunked treatments for COVID like

ivermectin on his podcast but once afflicted with his own infection sought out high quality care that he could afford while proclaiming he was also treating it with ivermectin.)

Along with disparaging the medical industry, profiteers from other arenas such as televangelism will capitalize on major health threats by tying in religious doctrine to sell spiritualized items as replacement self-managed medical care. By aligning the products with terms like "holy/blessed" and with strategic religious programming product placement, religious profiteers can convince followers that they do not need healthcare systems as long as they purchase these consumable spiritual tokens, tinctures, and talismans. This was seen early in the COVID-19 pandemic when the televangelist con-artist Jim Bakker began hawking a product he named Silver Solution, with his guest Sherrill Sellman, a self-professed natural health expert, proclaiming "Well, let's say it hasn't been tested on this strain of the coronavirus, but it has been tested on other strains of the coronavirus and has been able to eliminate it within 12 hours. Totally eliminate it. Kills it. Deactivates it." (Schwartz 2020)

Around the same time, Xephyr LLC (going by the business name of N-Energetics) immediately began a sales campaign online to sell colloidal silver as a treatment to protect against, mitigate symptoms of, and heal COVID-19 (Department of Justice 2020). A spate of these types of rouses popped up, so much so that the Justice Department had to send cease and desist letters repeatedly to the profiteering entities. (The sales of colloidal silver occurred under other names from other supplying agencies as well, such as "nano-silver" (The Department of Justice 2020).)

The payoff of profiteering through disinformation and conspiracies that require deep seated faith and have the underpinnings of religious tenets, is it makes it easy to absolve the profiteer from fault when inevitably a supplement or solution does not work, or even worse, injures an individual. The profiteer can simply pass off the complaint as an anomaly at first but can easily proclaim an issue of faith on the consumer's side, which is what caused the failure of health. They did not commit or truly believe in the divine and others should instead heed their experience as a warning to double down, not begin to question their deity, and by proxy the products promoted as an extension of that omnipotent force.

Disinformation and conspiracy theory profiteers create more than a subculture online, they develop a completely closed loop marketplace that runs parallel and simulates virtual expertise from medical professionals and institutions. This *cultic milieu* (Nattrass 2012) fills with eager and anxious individuals searching for pain relief, chronic illness care, or a second opinion on a newer diagnosis, along with *cultropreneurs* looking to seduce this population to follow them off platform and onto a personal website and lifeboat accounts. (Center for Countering Digital Hate 2021) (These are important as their profiles violate tightening social media platform policies in relationship to spreading false medical information and are subsequently demonetized or deleted.)

When successfully moved onto a website, the profiteers offer several options: products (supplements, medicalized appliances, solutions, wearable treatments, etc.) and services (telehealth style appointments, in person treatments, lifestyle plans, etc.) Profiteers will also offer group opportunities, like trainings, conferences, and presentations that they can sell exclusive access to through tickets and memberships.

These platforms will also offer VIP access to online resources that can only be unlocked for a monthly subscription, such as videos, blogs, and "research" materials. Eliciting a feeling of being prioritized and exclusivity, disinformation and conspiracy profiteers give followers emotional affirmation and value through elitism.

Similar to the religious style of profiteering, alternative health grifters will encourage followers to move away from systems of healthcare and instead depend entirely on individual behavior, treatments, and care practices. This gives them the ability to avoid accountability when a product or service does not result in improvement by blaming and blocking that individual then minimizing them by claiming they did not appropriately participate in treatment. When these alternative treatments go wrong, emergency health systems are shouldered with the burden of caring for an individual that is sicker, which is more costly for everyone paying in to our shared systems of care.

CHAPTER 8: CONCLUSION

"Power is in tearing human minds to pieces and putting them together again in

new shapes of your own choosing."

- George Orwell, 1984

Over the course of the previous 7 chapters what was formulaically laid out were

the veritable ways that misinformation, disinformation, and conspiracy theories make

communities unsafe; manipulate and destroy the mental health of individuals and groups;

uniquely target and exacerbate health disparities for vulnerable populations; make

accessing correct information difficult; afflict politics in a way that makes medical care

harder to execute ethically; and incentivize bad actors to continue to produce them

because of their lucrativeness.

Currently the debate that rages in public forum is about freedom speech and the

responsibilities of Big Tech. But these discussions fall woefully short of the issues, in the

same way the war on drugs never abated the country's issues with illicit and illegal

substance use or commerce. The current climate around substance use has grown in size

and struggle (Mann 2021), and so too do the problems misinformation, disinformation,

and conspiracy theories wrack on public health. If misinformation, disinformation, and

conspiracy theories were instead seen through the lens of public health there could

possibly be more reasonable understanding and movement to stop the way they run

rampant in media and online.

It is the consequentialist perspective to continually ask, "what are the outcomes

here? Who is or can be harmed by this?" when endeavoring to address a complication of

medicine and health. As urban bioethics is further conceptualized as a prescient area of

bioethical perspective, a radicalized understanding of harm must be conjured in order to

pull injustices up from the roots. Harriet Washington states in *Medical Apartheid: The*

Dark History of Medical Experimentation on Black Americans from Colonial Times to

the Present, "Of all the forms of inequality, injustice in health is the most shocking and

the most inhumane." Is it just to let a societal ill destroy the mental wellness of already

suffering individuals? Is it just to allow a pernicious entity to drive groups of people

(whose identities are shorn down to epistemic absolutist answers of the world) to acts of

violence and hate? Is it just to let a bevy of mountebanks feast on the miniscule finances

of the weary, worried, and ailing?

There are opposing arguments that would suggest that these sorts of social snafus

in the end work themselves out through the marketplace of ideas theory. The good,

worthy, and just ideas will float, the destructive, useless, and victimizing will sink. This

is naïve in the modern world of communication, where society no longer can be

equivocated to a market. Presently it would be more apt to call the current state of media

and its consumption a battlefield, replete with the noise, chaos, and threat to life and

limb. It is too simple to say that we will naturally be drawn to the "right" information, as

that presumes that all individuals have had the same education, morals, ethics, practiced

critical thinking skills, access to a platform, and good intentions when the truth is they do

not (Hendricks 2022).

The information space is thick with privatization that is controlled by an

overlapping few who crave oligarchy more than democracy, it is awash in the discord of

abusers, dunces, and scammers with audiences easily enamored by curated views meant

to trick trust out of them. Even for the more discerning, the massive quantity of produced media is too much to wade through, making everyone at high risk of falling prey to misinformation, disinformation, and conspiracy theories. What has been learned is that without guardrails communication hasn't just gone fast, it has jumped the shark and continues to sink the believability of any information into an abyss.

There is no outstanding impetus for tech and media giants to act ethically on behalf of the security and health of the general public. The current model of attention mining with rage farming and then selling that captured audience to any establishment regardless of their objectives is far more attractive than any beneficent choice could be. Cultropreneurs pay for advertising space and microtargeting, directly benefiting platforms. Extremist groups rooted in disinformation, conspiracies, and a desire to implement a holy or political civil war on all those they deem "unpatriotic" organize in private groups and chat threads, creating continual platform activity. BIPOC, LGBTQ+, and the disabilities communities are subject to uninterrupted debates on the value of their existence and the viability of proclaiming them human.

The obvious question that looms from learning all of the aforementioned is; what can be done? Or, is it too late to do something that could improve how information is processed, understood and shared even in the face of so many tools capable of leading an audience astray? Different areas of expertise on the issues of misinformation, disinformation, and conspiracy theories all have suggestions for combating these and the effects they have on groups and individuals, a non-exhaustive compilation of these that have been adapted to specifically combat medical and health mis/disinformation and conspiracies are as follows:

- Return to mainstream media regulations that require producing apolitical/moderate news with no ideological undertones or punditry (like the *Fairness Doctrine* (Stefon 2023)). Neutral media leads to an increase in an informed populace that values the key points of an issue rather than the partisan opinion or the emotional activation. This also lowers the susceptibility and interest in mis/disinformation.

- Social media platforms collaborating and coordinating mitigation efforts across them so that engineers of disinformation cannot hop across them when being held accountable for distributing dangerous health media. Along with cooperative coordination, companies should be sharing and upgrading community guidelines, policies, and keeping a joint list of egregious abusers of these rules. This joint strategy to disrupt production and shareability quells the ability for mis/disinformation to gain traction or go viral, preventing consumption and the eternalness of media on platforms.

- Social media platforms re-establish their perspective on the current construction of Section 230's interpretation. Right now it is used to shield them from responsibility because as entities they are not the creators of the media being placed online, but rather managers of the forums that this media can exist in. But Section 230 can also be interpreted to protect these companies' right to remove any media that is deemed in violation of their user policies, which do not have to align with free speech law as they are private entities. Using Section 230 to defend more stringent oversight and

safety regarding incendiary speech would be a better use of legal resources than defending the right to neglect and be held responsible for online abuse.

- Co-occurring research on public health emergencies and the ways information is shared, spread, and shifted across a variety of media, as well as monitoring how any of these change beliefs, behaviors, and outcomes. Tracking information related to major medical and public health occurrences allows for professionals in these spheres to improve their choices when informing communities, providing services, and discovering patterns in mis/disinformation that can then be interrupted. Local health departments as well as larger health departments at the state and/or federal level should invest in an infodemiogist (those who study the effects of infodemics (Gao 2022)) team that is able to advise internally on growing issues related to mis/disinformation.

- Agnotology must be better invested in as an area of expertise, with more social science research dedicated to understanding the causation of mass ignorance as well as how it is harnessed and weaponized. This also needs to be connected to finding out what kinds of foundational education and resources are necessary in the current day and age to combat and rescind the expansion of communal ignorance. Understanding the disparities of ignorance can lead to the ability to better treat and inoculate against it, in the same way understanding the construction of a virus can lead to developing the right medical treatment to cure or vaccination to prevent it.

- Intentionally moving from a big data society to a slow data society, where there are more requisites that must be met in order for an entity to produce either media or media platforms. Simply giving everyone the same sized microphone with the exact same captured audience without any requirements, edits, rules, or assessment procedures means everyone is existing at the mercy of every individual's mind and motives without any ability to anticipate or halt dangerous rhetoric and misinformation, disinformation, and conspiracy theories. Every industry has standards and procedures of accountability by which they operate externally and internally. The world of creators and influencers should have the same.

- More discernment in academia as it pertains to publishing for the sake of tenure or career clout rather than for the necessity of sharing vital information with others. Continuing to produce tepid opinion pieces and repetitive perspectives or meta-analyses in the end is just saturation for the sake of being relevant, which is a waste of real expertise, talent, and time. This would also include the large scale endeavor of cleaning up the massive amount of misinformation based medicine that continues to be permissive in medical academia. Such things as race based medicine and medical measurements, perspectives that are foundationally eugenicist, and binary stances on gender that minimize the health needs of people assigned female at birth all contribute to the toxic jungle of junk information that mis/disinformation hides within. There must be a willingness to challenge longstanding medically applied misinformation

and the archaic individuals in power who cling to it because they have
built their careers on these "truths". Science cannot ask everyone else to
change but then refuse to change when more is learned. There must be a
goal to be John Lister in this moment and not the establishment surgeons
that went out of their way to silence his work, preferring to protect their
prestige and tenure. Establishment produced misinformation as well as the
continued circulation of it long after something has been disproven
repeatedly sets the bricks in place for more pernicious disinformation to
utilize as strong basis for believability. Counter-hegemony is a keystone
viewpoint to dismantlement.

- When developing legislation, making the standard show proof of harm
  caused as a way to protect the original concept of free speech but still
  extend accountability measures for malicious actors. Proving that the
  information being shared was: false and had the direct ability to incite
  public disorder or violence; encourage individuals or communities toward
  medical interventions that are dangerous or unproven; and/or dissuade
  individuals or groups from engaging in prevention/protective action from
  a public health threat are all viable points in public speech that can be
  targeted without encroaching on the right to speak openly in opposition
  politically.

- Expanding the requisites the US currently has regarding disclosure to
  users of online advertisement spending, data collection, and monetized
  microtargeting that advertisers are using for their promoted media.

Currently there are no specifics regarding foreign entity spending, and social media platforms have been allowed to be self-regulating in how they inform users of these in order to follow the law. Having distinct standards that are consistently audited by a regulatory body external of the companies would lead to more transparency for users on who may be targeting them, and in what ways this could be misleading or manipulating.

- Having tighter journalism and media accreditation as a part of regulating large platform dissemination of mis/disinformation and conspiracies. In tandem with this more punitive responses that include rescinding accreditation because of a failure in meeting ethical integrity requirements.

- Ongoing observation and annual report production regarding identifying and tracing the paths of mis/disinformation and conspiracies. (Similar to how epidemiologists and virologists trace and report on communicable diseases that pose epidemic or pandemic levels of threat to the general public. An example would be the way HIV or tuberculosis are tracked.)

- Regulating content controls for social media entities. Requiring these companies to have specific content control policies as well as measures that they actively are improving as well as having a dedicated division with a consistent budget. This would make it easier for government oversight while relieving a substantial amount of concern about the ability to enact authoritarian measures that cool free speech activity.

- Limit raw data sales and strict licensing of third party buyers that engage in aggregating user data. Require all third party buying and selling to be public record for transparency.

- Create tight regulation of payment processing platforms and website hosting entities. Disinformation profiteers depend heavily on the ability to continually monetize their platforms and host their own platforms/websites. Implementing regulations that restrict their ability to do either disincentivizes them to produce disinformation.

- Investing in projects and programs that endeavor to raise health, media, and science literacy in communities, particularly vulnerable groups who are persistently targeted by mis/disinformation.

- Producing information from governing bodies, health/medical care systems, and public health entities that is collaborative, repetitive with the intent to educate (repeating necessary points that are important for an audience to remember for example) and uses universal low health literacy best practices to communicate on important health topics and issues.

- Require better training for medical and scientific professionals on how to educate non-academically proficient groups. Also requiring government funded research to include a communications specialist that produces easy to consume and interactive media for social media platforms so that the general public has constant access to transparency on the science they are funding.

- Encouraging or incentivizing experts in medicine, ethics, and the sciences to make communicating to the public on their topics of expertise a priority alongside their work. (This could look like offering a quarterly or annual bonus for having a successful social media account dedicated to informing, or covering the cost of producing high quality content for video platforms like YouTube. Thinking beyond covering conferences and university presentations.)

Relegating the issue of misinformation, disinformation, and conspiracies singularly to tech and first amendment rights conclusively dissolves the ability for doctors to practice medicine, for researchers to innovate biotechnology, for epidemiologists to execute prevention tactics, and for individuals to live up to their healthiest potential. The key to bridging this divide is bioethical intervention. It is the duty of those who are trained to understand the intricacies of human decision making and the comprehensiveness that population health and the medical sciences hold to throw their wisdom into the chaotic foray in order to ameliorate further damage to those who are medically at the mercy of this storm.

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