Vaccinated Against Reality?: The Global Post-Truth, Anti-Vaccination Infodemic

KEITH MOSER

This essay explores the force of the global anti-vaccination movement in the post-pandemic, post-truth era from a transdisciplinary lens focusing on the ubiquity of fake news and conspiracy theories inextricably linked to COVID-19 denial and vaccine hesitancy in a disinformation dystopia that several theorists in the hard sciences and humanities have labeled an infodemic. As the World Health Organization director, who felt compelled to conceive the WHO Information Network for Pandemics in order "to stem the tide of misinformation that threatens to drown society" (Witze 22), recently declared, "We're not just fighting an epidemic, we're fighting an infodemic" (qtd. in Alam and Chu 101). In a disquieting anti-science, anti-intellectual climate in which millions of people around the world appear to have lost the "ability to identify and curate trustworthy, evidenced-based knowledge resources," the postmodern French philosopher Jean Baudrillard's concepts of hyperreality and integral reality offer a rich theoretical framework for investigating how absurd notions that find their "origins outside of concrete reality" have substituted themselves for the real in the collective imagination of a large segment of the population (Jordan and Haladyn 253).

Beginning with the publication of his first book Le Système des objets in 1968, the maverick thinker Baudrillard "prefigured a day when all information might become destabilized" (Coulter 6). Decades before most other French philosophers, with the notable exception of Michel Serres, recognized the seismic shift in late capitalism from a society revolving around the production of material goods to a post-industrial economy fueled by the incessant reproduction of digital images bearing little or no connection to actual reality, Baudrillard reflects upon the perils of "the epidemic" of simulation (Seduction 69). When people spend the vast majority of their time in front of television, computer, smartphone, or tablet screens,

KEITH MOSER is Professor of French and Francophone Studies at Mississippi State University. He is the author of eight full-length book projects, the latest of which is titled *Contemporary French Environmental Thought in the Post-COVID-19 Era.* Moser has also contributed eighty-two essays to peer-reviewed publications representing many divergent fields including French and Francophone studies, environmental ethics, ecocriticism, ecolinguistics, biosemiotics, social justice, popular culture, and Maghrebi/Harki literature.

Baudrillard posits that there is "less and less relationship to an external reality" (Røyrvik and Brodersen 651). For all intents and purposes, Baudrillard theorizes that many individuals live in a parallel universe of simulation that is so utterly detached from reality that it takes on a life of its own. Owing to the nefarious effects of proliferation, a key concept that will be operationally defined in a later section of this article, Baudrillard contends that millions of people dwell within the confines of a symbolic realm in which they are constantly bombarded by artificial simulacra that are "beyond truth, beyond reality" because nothing stands against them (Forget Foucault 99). Even if Baudrillard's main point is somewhat overstated, as the final section of this essay concludes, "[t]he collapse of the information systems" to which Baudrillard refers is a serious problem with real-life consequences (The Transparency of Evil 193). In the post-pandemic world in which a steady stream of "alternative facts" emanating from various informational vectors including social media "can strongly influence people's behavior and alter the effectiveness of the countermeasures deployed by the government" (Cinelli 1), Baudrillard's hypothesis that many individuals no longer "know what is real anymore" is supported by a growing body of evidence (Penaloza and Price 127).

Even if Baudrillard takes it a step too far with his analysis of the "changing status of signs in industrial and post-industrial culture" in the United States and around the world, as evidenced by the efficacy of the implementation of critical media literacy training in schools that has started to bear fruit, this study demonstrates that the nonconventional philosopher's theories explain how we have arrived at a pivotal crossroads in contemporary global culture saturated in a cesspool of simulacra (Greaney 140). Compared to many other articles devoted to the infodemic that only scratch the surface of the origins of hyperreality[1], Baudrillard's thought provides a rich, theoretical framework that is missing from other studies that helps us to comprehend the emergence of the brave new world in which we live in the age of information more fully. It should also be noted that research within the medical humanities drawing on Baudrillard's understanding of the nature of reality and how it is constructed is scant. Furthermore, the end of this essay will examine how Baudrillard's astute observations related to the omnipresence of filtered reality paradoxically suggest a preliminary roadmap for resistance. Since we are in the early stages of a battle against disinformation that

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[1] For instance, see Agrawal, Ehsen and Alam, and Paul, Mohanty, and Sengupta.

has already proven to have deadly ramifications in the fight against infectious diseases, as manifested by vaccine hesitancy that has claimed many lives in America and across the globe, we have no choice but to roll up our sleeves and contest the scourge of fake news obfuscating the real. Otherwise, the next time that we are faced with the monumental challenge of dealing with a new zoonotic virus, the semiotic contamination to which Baudrillard refers could be the death of us all.

Brief Historical Overview of the Anti-Vaccination Movement

A brief historical overview of the origins of the anti-vaccination movement reveals that the "epidemic of simulation" is not a novel phenomenon. In other words, disinformation has always been an obstacle standing in the way of medical advances. Nevertheless, scientists have now been forced to counterpoint a deluge of misleading and false claims about infectious diseases and vaccines like never before in the current era of (dis-) information. From a historical vantage point, Tara Haelle underscores how "the world's first known mandatory vaccination law, requiring the general population to receive the smallpox vaccine" in Massachusetts in 1809 encountered fierce resistance from "anti-vaccination groups (who) argued the compulsory vaccination violated personal liberty" (Haelle, my insertion). Julie Leask explains that there were also widespread and sometimes violent skirmishes between police and those "who protested against mandatory smallpox vaccination in nineteenth-century England" as well. "Despite mortality rates between 30% and 40% and the extreme contagiousness of the disease, it was common for anti-vaccinationists to claim that smallpox was only a minor threat to a population" in newspapers and pamphlets that were the purveyors of fake news during this time period before the digital revolution (Larsson). Fortunately, enough people would eventually take the vaccine in spite of these aggressive disinformation campaigns, thereby virtually eradicating this deadly disease from the face of the planet.

Due to the undeniable success of vaccines in the twentieth and twenty-first century with the dawn of modern medicine that "wiped out some diseases […] such as smallpox, rinderpest, and have nearly eradicated malaria and polio" from an objective standpoint, it would stand to reason that the anti-vaccination movement would be a marginal crusade supported by a tiny fraction of the populace (Hussain et al. 1). However, as Kristina Niedringhaus outlines in her aptly named article "Information Literacy in a Fake/False News World: Why Does it Matter and How Does it Spread," the contemporary roots of the anti-vaccination movement can be

traced back to Andrew Wakefield's 1998 article "linking the MMR vaccine with autism" (97). Although "The Lancet fully retracted the article in 2010 citing ethical violations and scientific misrepresentations, among other things," the damage had already been done in the disinformation echo chambers from which millions of people receive their so-called "news" (Niedringhaus 97). Wakefield's concerns were soundly disproven to the point of being entirely discredited, but his article would lay the foundation for the present anti-vaccination movement. Before an unprecedented public health crisis would shake the very foundation of human civilization to its core, the seeds of COVID-19 denial and vaccine hesitancy had already been sown. In a post-truth society "in which deception has become commonplace at all levels of contemporary life," the unfounded skepticism about the utility and safety of vaccines would soon reach epic proportions in the informational channels where millions of individuals are immersed in an alternative (hyper-) reality with the emergence of the novel coronavirus (Hopf et al. 1).

The Advent of Hyperreality, Integral Reality, and the Post-Truth Society in Baudrillard's Transdisciplinary Philosophy

Baudrillard's radical reworking of symbolic exchange offers invaluable insights related to how we have arrived at this critical juncture in contemporary consumer republics, an expression coined by the historian Lizabeth Cohen in A Consumer's Republic: The Politics of Mass Consumption in Postwar America. According to Baudrillard, the incessant promulgation of images laden with purely symbolic meaning disseminated to us through a plethora of divergent screens has further eroded our already tenuous grasp on reality. Given that many people "have mistaken the image for the real thing" (Root 237), "we exist in a state of hyperreality, where little distinguishes the real and the imaginary" (Wright 171). Owing to the onslaught of commercial simulacra that endlessly flicker across our screens, Baudrillard maintains that our defenses are weak. Outside of the economic realm, Baudrillard's theory of hyperreality sheds light on why a substantial portion of the population seems to devour "void signs" without any reflection whatsoever about the veracity of the claims in question (Baudrillard, Amérique 26).[2] The "crisis of representation," or the increasing inability to distinguish between reality and contrived, sometimes even absurd, representations of it has permeated all facets of

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[2] All translations are my own unless otherwise indicated.

quotidian life (Baudrillard, Forget Foucault 73). Baudrillard's concept of hyperreality provides a cogent explanation for understanding COVID-19 denial and vaccine hesitancy in general. In a post-truth climate in which passive consumers of the "nectar of simulation" (Cline) reside within a "web of stray signs" that are often disconnected from evidence and daily experience, an alternate form of (hyper-) reality eclipses the real (Baudrillard, Seduction 74). For people who live in an entirely different (hyper-) reality comprised of floating signifiers, it should come as no surprise that the most bizarre conspiracy theories imaginable about the appearance of COVID-19 and the effectiveness of vaccines somehow make sense.

After reaching the disconcerting conclusion that hyperreality is on the verge of substituting itself for the real completely in many of his earlier essays, Baudrillard announces the advent of what he terms "integral reality" in several later works. The unorthodox and provocative philosopher affirms that we are witnessing the utter "collapse […] of the real" unfold before our eyes (Baudrillard, Seduction 81). Baudrillard defines integral reality as the "final phase of the enterprise of simulation" (The Intelligence of Evil 34) "in a world from which all reference has disappeared" (Coulter 3). In simple terms, integral reality "involves […] the murder of the real," or the complete effacement of reality (Baudrillard, The Perfect Crime 25). Baudrillard hypothesizes that "the whole of the real" has now been forever compromised buried deep under an avalanche of insignificant signs (The Intelligence of Evil 18). With the birth of the digital revolution, Baudrillard asserts that there is no longer any escape from the "gigantic apparatus of simulation" that accosts us from all sides (The Intelligence of Evil 27). For Baudrillard, we are doomed to live in a meaningless, post-truth universe were all signifiers "have lost their referents entirely" in linguistic and philosophical terms (Penaloza and Price 13). Even if COVID-19 denial and the anti-vaccination movement lend credence to Baudrillard's central premise that the ubiquity of hyperreal simulations has hollowed out our ability to discern between reality and its screen-based representation, I will push back against the strong version of integral reality that eliminates the possibility of resisting the hegemony of the code at all. If no frame of reference or type of discourse existed for contesting the hostile takeover of reality through the skillful imposition of signs, it would be impossible to write these lines.

The Hegemonic Force of Proliferation in the Post-Truth Era

Nonetheless, the theoretical structure that Baudrillard methodically outlines for comprehending the aforementioned societal shift highlights how (dis-) information spreads so quickly in anti-science, anti-vaccination circles. Specifically, the philosopher's theory of proliferation explains why there is not enough resistance to far-fetched conspiracies, fake news, and deep fakes. In his seminal essay Seduction, Baudrillard offers the following definition of proliferation: "by giving you a little too much one takes away everything […] the more immersed one becomes in the accumulation of signs, and the more enclosed one becomes in the endless over-signification of a real that no longer exists" (Seduction 30-33, italics in original). When we are incessantly drowning in an ocean of seductive simulacra, the outside world or "things disappear through proliferation or contamination" (Baudrillard, The Transparency of Evil 4). As Douglas Kellner notes, "As simulations proliferate, they come to refer only to themselves: a carnival of mirrors reflecting images projected from other mirrors" (128). This Baudrillardian notion underscores how "the utter proliferation of images […] most directly mediated to us through screens" renders it more difficult "for people to construct meaning and to hold on to something real among all the fluid flashes of light images from their screens" (Root 239; 239). The concept of proliferation stipulates that there is "no exit" from the all-encompassing self-referential network that has replaced commonplace reality (Kellner 128). Baudrillard argues through his theory of proliferation that "the matrix of information and communication" has irrevocably severed all ties between the alienated postmodern subject and reality (Seduction 170).

The Nefarious Effects of Proliferation in Anti-Vaccination Echo Chambers

The force of proliferation elucidates how "misinformation spreads more rapidly than the disease itself" in the post-pandemic world (Alam and Chu 101). In essence, the "constant flow of a media and infodemic narrative […] does not stop at the sphere of the network and social media, but is actualized and becomes real" (Vincenti 196). In a testament to the power of proliferation that "is evidently the most striking characteristic" of the phenomenon of hyperreality (Baudrillard, La Société de Consommation 25), fake news about the coronavirus generates "its own horizon of meaning" (Vincenti 196). Presenting the results of a recent study dedicated to conspiracy theories that challenge the existence of COVID-19 and the usefulness of vaccines, Kristina Niedringhaus reveals, "True stories took six times

as long to reach 1, 500 people as false stories" in cyberspace (100). Moreover, the systematic exploration of the nefarious effects of profusion in anti-vaccination echo chambers conducted by Md Saiful Islam et al. identifies "2, 311 reports of rumors, stigma, and conspiracy theories in 25 languages from 87 countries" (1621). The present infodemic driven by profusion is a global pandemic that seems to know no bounds. "The anti-vaccine discourse on social media" is everywhere touching all corners of the globe, thus preventing scientists and other medical experts from formulating an even more robust response to the worst public health crisis since the dawn of modern medicine (Bhatta et al. 96).

For instance, there is a direct correlation between the propagation of conspiracy theories regarding the origins of COVID-19 and the refusal to take one of the many vaccines that are free and widely available. In the self-referential, hyperreal networks that Baudrillard cautioned us to be wary of for decades before his death in 2007, chimerical myths, stories, and downright fabrications about the origins of the novel coronavirus abound. A few of the many hyperreal metanarratives that continue to proliferate themselves include the unsubstantiated notion that COVID-19 is a bioweapon "that a scientist from China had engineered" (Islam et al. 1624), the idea that "Big Pharma" conceived the virus along with the cure in order to generate millions of dollars in revenue (Özdemir 158), the theory that "Fifth Generation Mobile Technology" is connected to the deadly outbreak (Manda 255), and the radical fundamentalist position that COVID-19 "was a punishment from God" (Manda 256) espoused by "63 percent of Americans" according to a recent poll (Manda 256). An empirical study conducted by Jad Melki et al. discovered that "those who trust information from clerics" regardless of the religion in question as opposed to scientists or other experts in the medical field were almost defenseless against fake news related to both the emergence of COVID-19 and the efficacy of vaccines (1).

This finding supports Baudrillard's scathing critique of "rampant Christian fundamentalism in the U.S." (Coulter 126). Baudrillard describes the United States as the hyperreal model to be emulated where almost all traces of reality have disappeared in "this universe rotten with wealth, puritanism, and misery" (Amérique 59). As demonstrated during the Trump administration, the so-called alt-right derives much of its strength from evangelicals who championed and endlessly disseminated every "shameful and pointless hoax" that Trump conceived

during his four years in office (Baudrillard, The Gulf War Did Not Take Place 72).[3] Baudrillard suggests that it is hardly surprising that people whose entire worldview is predicated upon magical thinking could be so easily duped by any purveyor of disinformation. It is in this sense in which Trump's republican nomination and subsequent presidential election in 2016 should be understood. Illustrating how Trump skillfully manipulated millions of voters with a flood of simulacra directly contradicted by evidence on a regular basis, Jacques Berlinerblau reveals, "[a]t first consideration, it would appear that Donald Trump would be the least likely Republican presidential candidate to win the votes of conservative White evangelicals. And yet the thrice married, crude-talking, religiously unsophisticated, reality show star who has been accused of sexual assault won 81% of the white evangelical vote in the 2016 presidential election" (18). After tapping into evangelical culture on an unprecedented level, Trump became a cult-like figure whose "denialist positions," promotion of fake cures like hydroxychloroquine and the injection of disinfectants, and evident xenophobic rhetoric about what he referred to on multiple occasions as "Kung Flu" were rarely questioned by his most ardent supporters who appeared to have lost all connection with concrete reality outside of pervasive anti-science, anti-knowledge echo chambers (Manda 261).

Trump was also partly responsible for the litany of conspiracy theories regarding masks in the United States. By poking fun at political opponents like Joe Biden for wearing a mask in public, Trump's lack of "consistent messaging on mask-wearing" mobilized millions of people against the urgency of masks and vaccines (Kirk qtd. in S. Smith). Trump's incoherent stance added fuel to the fire for those who have somehow convinced themselves "that masks are bad for our health" (Caulfield). Given that there is not a single documented case of a mask ever hurting anyone in any country, the fact that cyberspace is replete with fake news stories about the "danger of a face mask" supports Baudrillard's arguments about the withering away of reality (Goodman and Carmichael). From a philosophical angle, the medical doctor Tom Lawton's highly publicized twenty-two-mile run with a facemask was a counter-hegemonic effort designed to tear "a hole in our artificially protected universe" of simulation (Baudrillard, The Transparency of Evil 95). Dr. Lawton undermines the hyperreal claim all over the Web that masks

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[3] For a more systematic exploration of how Trump harnessed the power of simulation like never before during his presidency that transcends the pragmatic limitations of this study, see my article entitled "'Alternative Facts' Trump Reality in American Presidential Politics?: A Baudrillardian Analysis of the Present Crisis of Simulation" in the *International Journal of Baudrillard Studies*.

deprive individuals of oxygen rendering it more difficult to breathe in an attempt to "stop the spread of misinformation and conspiracy theories around face coverings and to raise funds for charity" (Mahmood). People who inhabit a distorted disinformational bubble in which even a mask is a potential agent of death have also been some of the most vocal opponents of COVID-19 vaccines in hyperreal spaces where science or evidence have no place.

Some of the most prevalent and lethal fake news stories, which have persuaded millions of people to refuse vaccinations all throughout the world, have been inspired by a misunderstanding related to how vaccines work. Perhaps, the most common conspiracy theory about COVID-19 vaccines is that they alter the DNA of the subject. As Jack Goodman and Flora Carmichael highlight, "the fear that a vaccine will somehow change your DNA is one we've seen aired regularly on social media." Victoria Forster observes that this debunked myth has been around for decades in anti-vaccination circles with other vaccines. Explaining how the notion that vaccines modify your genetic code, thereby transforming the patient into a new hybrid creature, predates the appearance of COVID-19, Forster declares, "One of the most popular circulating myths at the moment is that mRNA vaccines will alter your DNA, with pseudoscientific content flooding social networks such as Twitter, Facebook and YouTube. The good news is that they simply can't do this [...] where did this belief in DNA-changing vaccines come from." Baudrillard's concept of hyperreality once again provides a plausible explanation for what is initially a rather baffling phenomenon. When signs proliferate themselves to such an alarming extent, "there is nothing outside of their operational logics" (Abbinnett 69). In the ubiquitous matrix of (dis-) information where supporters of the anti-vaccination movement are "informed," "There is no truth of the object, and denotation is never more than the most beautiful of connotations [...] The function(ality) of forms, of objects, becomes more incomprehensible, illegible, incalculable, every day" (Baudrillard, Le Système des objets 196, italics in original).

Not only do infodemics hamper the tireless efforts of the scientific community to save even more lives in the post-pandemic era, but hyperreal, disinformation echo chambers also offer a safe haven to racists and bigots who have created and propagated racially charged conspiracy theories about COVID-19. The most salient example is the unsettling rise in hate crimes directed against Asian communities on a global scale. The usage of racially motivated terminology in both traditional and online media in reference to the origins of COVID-19 (e.g. "Kung Flu," "Chinese Virus," "Wuhan Virus") has led to overt acts of discrimination and violence against

Asian people in multiple countries. As the journalist Sam Cabral reports, "from being spat on and verbally harassed to incidents of physical assault, there have been thousands of reported cases in recent months […] linked to rhetoric that blames Asian people for the spread of COVID-19." Owing to the seriousness of the anti-Asian sentiment in the United States, "the COVID-19 Hate Crimes Act" became a law in May 2021 (Liu). Chelsea Gray and Kirstine Hansen recently uncovered that anti-Asian hate crimes have also risen drastically in London based on "data from the Metropolitan police for the whole of the Metropolitan area of London" (3). Many people of Asian descent no longer feel safe in communities where they have sometimes lived for generations because of this ludicrous form of prejudice that has spread like a cancer through social media. This anti-Asian discrimination and aggression is yet another example of how the deleterious effects of proliferation to which Baudrillard refers have supplanted the real resulting in "the viral contamination of things by image" (Wulf).

Counter-Hegemonic Forms of Resistance to the "Hostile Takeover of the Real"

As numerous critics including Gerry Coulter, Douglas Kellner, and Nissim Mannathukkaren have noted, Baudrillard is pessimistic about counter-hegemonic strategies for resisting the hostile takeover of the real. According to Baudrillard, "we should entertain no illusions about the effectiveness of any kind of rational intervention" (The Transparency of Evil 119-120), because "the murder of reality is a crime that alas cannot be solved […] precisely because all 'critical distance' […] has vanished into the play of signs" (Smith 79). In reference to Baudrillard's premise that resistance is now futile with the "perfect crime" already being committed (i.e. the utter implosion of reality), Nissim Mannathukkaren asserts, "The greatest difficulty with Baudrillard's analysis is that he does not propose a way out of the condition of 'hyperreality'" (428). With the inception of integral reality, Baudrillard posits that the postmodern subject is condemned to live in a world in which every sign is merely a "simulacrum without perspective" (Rubenstein 74). During the final stage of simulation, which we have now entered, Baudrillard ironically pines for the "happy days, when the simulacrum was still what it was, a game on the fringes of the real and its disappearance […] This heroic phase is now over" (The Intelligence of Evil 69). Despite the evident dark humor in this passage, Baudrillard's grim conclusions imply that it is pointless to try to

defend ourselves against the imposition of integral reality. The philosopher would be skeptical at best that it is still possible to poke a hole in the fabric of the hyperreal that he argues has now superseded reality in the aforementioned anti-vaccination echo chambers.

Even if Baudrillard overemphasizes his main point, the growing distrust of established knowledge and expertise amongst the general public is undoubtedly exacerbating the crisis of simulation. One of the many problems with disreputable sources that proliferate disinformation about COVID-19 and vaccines in general is that "alternative facts" grounded in hyperreality appear to be more trustworthy for a considerable segment of the population than evidenced-based theories linked to scientific discoveries. When many people devour conspiracy theories in front of their screen, these misrepresentations of reality seem to be more reliable than medical opinions from doctors and infectious diseases experts whose immense erudition is discounted or trivialized. As Kristina Niedringhaus outlines, "we've reached a point where academia, intellectual pursuits and knowledge work are viewed with suspicion in some communities. It is a way of asserting individual independence to reject the advice of experts, especially on public policy matters […] it is viewed by some as democratic that my 'opinion' matters just as much as anyone else's, even if I know nothing about the subject" (99). Niedringhaus's analysis of the erosion of confidence in scientific and intellectual pursuits connected to the digital age in which many individuals think that they can google the answer to everything without taking into account the reliability of the source explains the rage that is on full display at anti-vaccination protests around the world. Although the medical community reached a consensus very quickly about both the reality of COVID-19 and the efficacy of several life-saving vaccines, the larger problem is that actual knowledge is no longer recognized or valued at all.

In an anti-intellectual climate, which could be described as an epistemological crisis, it is difficult to refute Baudrillard's claim that it is at least harder to fight back against obscurantism and post-truth metanarratives. Tom Nichols's recent book The Death of Expertise: The Campaign Against Established Knowledge and Why it Matters systematically investigates the repercussions of living in a post-truth universe. In particular, Nichols "lays out the case for why we are turning away from the experts and professionals in our lives" (Pulliam 35). When we dwell within "our isolated 'information silos,'" "the advent of the Internet has made it easier than ever for every person with access to become their own 'expert' in all things" (Pulliam 35; 35). Nichols's notion of the death of expertise recalls

Baudrillard's concept of the "perfect crime." Furthermore, Nichols's theory helps us to understand why millions of people in the United States are convinced that they (or Trump) know more about infectious diseases than the renowned scientist Anthony Fauci who has devoted much of his life to rigorous scientific inquiry. Instead of relying on the advice of medical professionals, "people no longer respect the opinions of experts" (Yoo 4). Many internet users suffer from the delusion that they can become more knowledgeable than scientists by watching YouTube videos or processing disinformation from anti-vaccination echo chambers like QAnon, Breitbart, Reddit, or Gab.

Nichols's concept of the death of expertise is connected to the problem of confirmation bias. Based on the erroneous conviction that anyone can properly inform herself or himself in cyberspace and ignore real experts, "users online tend to acquire information adhering to their worldview" (Cinelli et al. 1). Confirmation bias explains why preposterous "news stories that are in line with existing narratives" (Grüner and Krüger 1) such as the "QAnon conspiracy about pedophilic Satan worshipers in politics and the media" are legitimized and accepted by a certain percentage of the population (Witze 23). Homo sapiens appear to have an innate predilection to only "search for information that supports their beliefs and ignore or distort data contradicting them" (Peters 1). Our species seems to be hardwired from a biological standpoint to take advantage of cognitive "shortcuts to help assess different choices" (Newkirk). When we are faced with too many decisions, or when we do not have enough time to process the flood of information in which we are encapsulated in the digital age, we often dismiss dissenting views and focus on the bits of (dis-) information corresponding to our preexisting beliefs. Given that "Time counts" and "this is not, therefore, thinking time, but reaction time," the digital revolution has resulted in an increasing dependence on these mental shortcuts (Baudrillard, The Consumer Society 103). The postmodern lifestyle has further problematized the possibility of liberating ourselves from the omnipresent realm of simulation.

Nevertheless, evidence suggests that the situation may not be quite as dire as Baudrillard theorizes. In fact, it could be argued that "the radical semiurgy developed by the provocative theorist of hyperreality reflects a rudimentary blueprint for the promotion of a more critical visual literacy" for contesting hyperreal, post-truth metanarratives (Moser, "The Philosophy of Jean Baudrillard" 85). If we truly lived in the "golden age of simulation" in which "the visible allegory of the cinematic form […] has taken over everything-social and political life, the

landscape, war, etc.," it would be impossible for the scientific community to reach those who are vaccine hesitant at all (The Intelligence of Evil 69; 124-125). It is also hard to accept Baudrillard's theory that "there is no critical distance from which to oppose" the hegemony of the code whatsoever at face value (Nechvatal). Even though many people obstinately cling to conspiracy theories and no amount of evidence or data seems to be able to convince them otherwise, some individuals have changed their mind. Deconstructing Baudrillard's nihilistic position regarding resistance, Jad Melki et al. discovered that "Echo chambers may be disrupted through critical media literacy training" (2). With the proper guidance, people can learn how to recognize "questionable versus reliable sources" (Cinelli et al. 5).

After underscoring the gravity of the infodemic, Alexandra Witze refuses to succumb to despair or apathy. Building upon research exploring critical media literacy training in schools around the world, Witze reveals that children, adolescents, and adults can develop strategies that make them less vulnerable to the devastating effects of hyperreal, echo chambers. Specifically, Witze emphasizes the importance of what researchers have labeled "prebunking" that could be defined as "the process of debunking lies, tactics, or sources before they strike" (Nolan and Kimball). Witze elucidates that prebunking is like "a vaccine that allows people to build up antibodies to bad information" (24). Since we desperately need to find a way to get through to those who have been effectively vaccinated against reality by a veritable deluge of post-truth signs in the post-pandemic era, the most important question is: "What percentage of the population needs to be vaccinated in order to have herd immunity against misinformation" (Witze 26). We may face an uphill battle, yet research devoted to prebunking demonstrates that our capacity for critical reflection has been greatly diminished in the postmodern world, but the Baudrillardian perfect crime has yet to be committed. Even if "the fight against internet-enabled disinformation will be Sisyphean in nature," the struggle is not in vain (Mecklin 109).

In addition to critical media literacy training as a counter-hegemonic device for challenging the proliferation of disinformation, many theorists and politicians affirm that social media platforms have a role to play in the regulation of hyperreal content. The contentious idea that companies like YouTube, Facebook, and Twitter have a responsibility to combat the sometimes deadly effects of fake news and conspiracy theories has received a lot of traction in recent years. The key question is whether "social media companies must flatten the curve of misinformation" by removing or flagging content that can easily be proven to be false (Grüner and

Krüger 2). In a society in which people have the freedom of expression, governments across the world have been forced to address this thorny problem that has become a public health issue and a serious threat to democratic institutions themselves. After the January 6th coup d'état attempt by Trump supporters and QAnon followers, Sundar Pichai, Mark Zuckerberg, and Jack Dorsey were admonished by American politicians for hours as part of a televised hearing related to the lack of online regulations. During this public event, politicians discussed the possibility of modifying or overturning "the legislation that protects online platforms from liability for content posted by third parties" (Wakefield). "The issue of whether social media should be regarded as platforms that are not responsible for content or publishers, like traditional print publishers, that may be held liable for the content that they disseminate" lies at the heart of this debate (Hopf. et al 4). Regardless, world leaders have realized that the hyperreal indoctrination that occurs in various echo chambers cannot be swept under the rug. With the January 6th insurrection and the current infodemic that is preventing the medical community from potentially eradicating the COVID-19 virus, we may have reached "a tipping point for greater regulation" (Wakefield).

Even if the solution is to crack down on social media platforms that are the greatest traffickers of disinformation, these corporate titans will undoubtedly resist these counter-hegemonic initiatives because fake news is extremely lucrative. As Nancy Pelosi underscores at a virtual forum hosted by George Washington University, "Social media executives have failed to stop the spread of disinformation on their platforms […] Instead, they have sold out the public interest to pad their corporate profits. Their business model is to capture your time and attention, even if it's at the expense of the truth" (qtd. in Hopkins). Pelosi wonders if it is realistic to expect companies who derive immense economic benefits from the post-truth climate that they have helped to create to police themselves. Other international politicians have also observed that "[s]ocial media firms are hampered by their commercial interests when tackling fake news" (Geddie). In late-stage capitalism dedicated to the principle of unfettered growth and expansion at all costs, "experts say profit motive hinders battle against online disinformation" (Iovino).

For a transnational corporation that only cares about increasing profits, some researchers and politicians argue that legislation is the answer. Owing to the necessity of undermining hyperreal metanarratives in order to protect citizens from pandemics and to ensure the integrity of democratic institutions themselves, numerous countries have created "laws against the spread of false news" (Grüner

and Krüger 2). Yet, this counter-hegemonic response to infodemics is also fraught with peril. The problem is that the expression fake news can be appropriated to refer to factual "information that does not reflect one's own […] opinion" (Grüner and Krüger 2). The best case in point is how the notion of fake news became Trump's "favourite phrase" for criticizing evidenced-based theories that contradicted his hyperreal tweets and "alternative facts" (Woodward). The situation is even more dire in Hungary where "[c]ivil rights activists […] fear more censorship under the guise of corona pandemic measures," because of "a new law against the spread of fake news (that) does not clearly define false information" ("Defining Fake News in Hungary," my insertion). For a leader with autocratic tendencies, fake news legislation could be weaponized against political opponents. Hence, many theorists and politicians have expressed legitimate reservations about legal avenues for disrupting anti-science, anti-knowledge echo chambers.

Conclusion

In conclusion, this Baudrillardian analysis of the global post-truth, anti-vaccination infodemic has exposed the dangers of living in a world in which millions of people have lost all connection to reality. Despite the fact that he may occasionally overstate his central thesis that concrete reality has been replaced by a self-referential network of stray signs in the collective imagination of millions of individuals, Baudrillard's transdisciplinary philosophy represents an invaluable theoretical framework for understanding how fake news and conspiracy theories proliferate themselves to such an extent. Whereas Baudrillard cynically posits that the only course of action is to wait for the hyperreal structure of consumer society to implode from the inside due to its excesses since "all systems create the conditions of their own demise," research related to critical visual literacy offers a glimmer of hope (Coulter 1). For all of the scientists and medical professionals who are on the front lines grappling with a pandemic and an infodemic, they should heroically continue to fight on both fronts. In global, post-industrial culture perfused with and defined by signs, millions of internet users are engulfed in a sea of enticing simulacra from which there appears to be no escape in their isolated echo chambers. Nonetheless, the perfect crime may be on the horizon, but it has yet to be fully actualized. Similar to how Dr. Rieux in Camus's La Peste stoically accepts his role as "the tireless fighter of the plague," it is up to the entire academic

community including humanists like myself to contest the death of expertise and the ubiquitous hijacking of the real by the simulators of hyperreality (Farr 279).

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