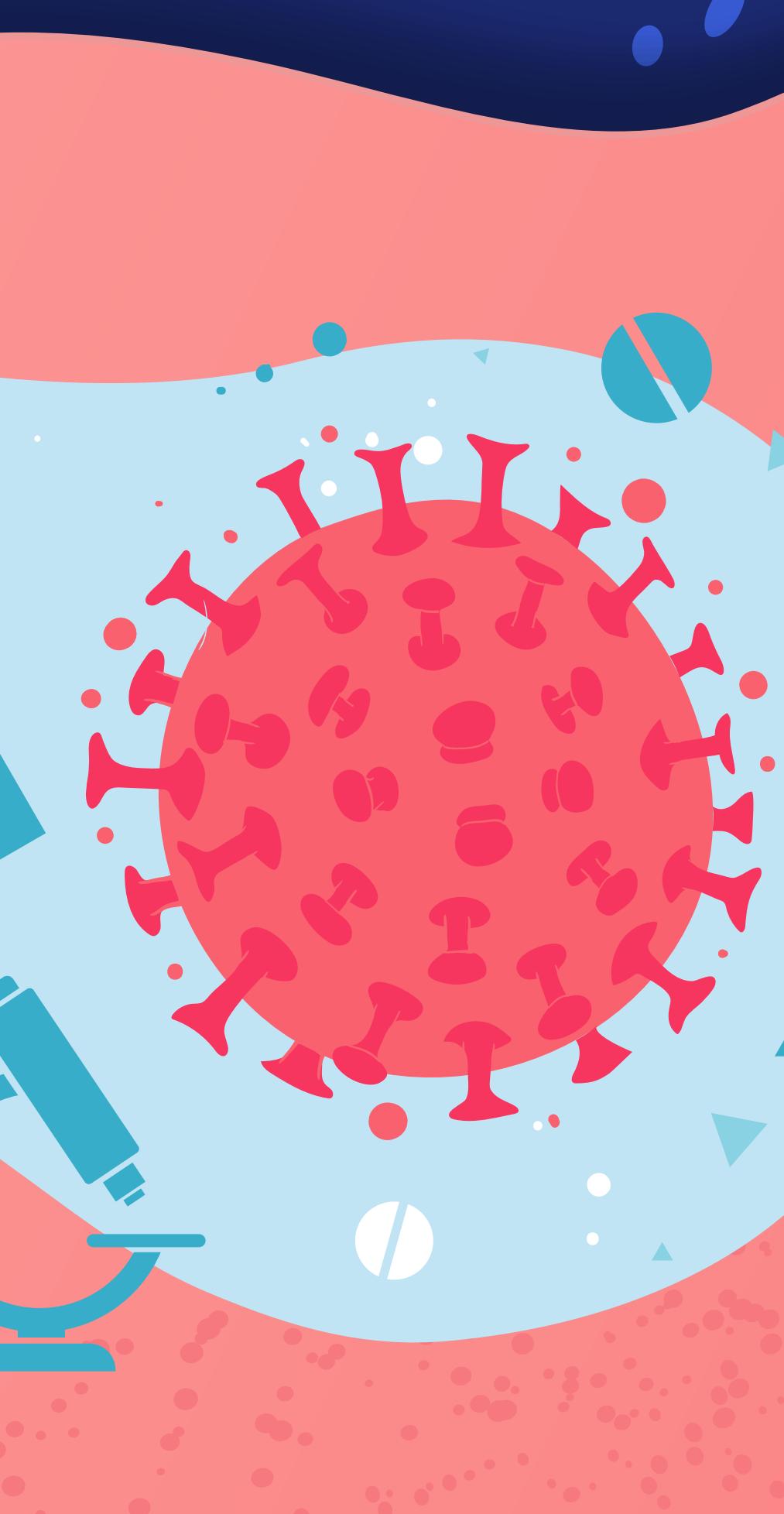




The Infodemic and Healthcare Professionals' Ethical Obligations

By Nanette Elster and Dr. Kayhan Parsi



On May 11, 2023, the White House ended the national emergency concerning the COVID-19 pandemic. What will not end are the continued misinformation, disinformation, and outright lies that the pandemic engendered. This “infodemic” also resulted in pervasive scientific distrust. This article will critically examine the infodemic, the epidemic of misinformation that accompanied the actual pandemic and may have exacerbated it. It will define what an infodemic is, define various terms such as “misinformation” and “disinformation,” and highlight lies that were promoted. The article will also discuss how the infodemic was propagated by certain prominent and influential individuals through the use of social media platforms. The focus will be on the ethical obligations of healthcare professionals, arguing that public trust is eroded when members of the healthcare professions engage in the spreading of misinformation, disinformation, and lies rather than promoting information rooted in science and evidence. An argument will also be made that healthcare professionals have an ethical obligation to curb and/or correct the dissemination of false or incorrect information.

DEFINING INFODEMIC, LIES, MISINFORMATION, AND DISINFORMATION

In 2003, foreign policy expert David Rothkopf coined the term “infodemic” in referring to the SARS outbreak 20 years ago. In a *Washington Post* article, Rothkopf defined an infodemic as follows:

A few facts, mixed with fear, speculation and rumor, amplified and relayed swiftly worldwide by modern information technologies, [which] have affected national and international economies, politics and even security in ways that are utterly disproportionate with the root realities.¹

Rothkopf went on to state that an infodemic can create moral panics that generate disproportionate responses to threats in the world. With COVID-19,

however, an infodemic created an alternate understanding of the world, built on half-truths, misstatements, and outright lies that spurred distrust and blatant disregard of recommended actions to stem the spread of the pandemic. With regard to lies, Mark Twain is famously quoted as saying the following: “A lie can travel halfway across the world while the truth is putting on its shoes.” Lies can take on a life of their own and can be disseminated instantly and broadly through various media technologies (ironically, this quote has been misattributed to Twain with no actual evidence that he ever said or wrote this). But what is a lie? And what is misinformation or disinformation? For our purposes, a lie is simply a statement that is not true with an intent to deceive. A lie is not an innocent mistake or an oversight. Misinformation is simply getting the facts wrong (with no intention to deceive). Disinformation, on the other hand, is information that is not only wrong but deliberately curated and intended to spread to deceive others. In this sense, then, disinformation is closely linked with lies and may be more nefarious. Disinformation is more systematic than simple lying. For instance, a politician may utter a lie during a campaign but does not repeat it or systematically spread it through social media. The latter qualifies as disinformation. Despite these differences in misinformation and disinformation, these terms are often used interchangeably in the popular media.

Misinformation and disinformation abounded during the height of the COVID-19 pandemic, with high-profile politicians, journalists, sports celebrities, and social media sensations speculating about or directly promoting unproven prevention and treatments, from home remedies such as bleach baths or drinking bleach to non-efficacious drugs like Ivermectin or hydroxychloroquine. The untruth about the value of hydroxychloroquine in treating COVID-19 led to a shortage and/or denial of this medication to those who required access to it to treat a range of other diseases.² The damage that was triggered by the proliferation of snake oil cures was considerable, including creating a pervasive distrust of evidence-based science.

Other propagators of misinformation were healthcare professionals themselves. Most notable is the osteopathic physician Joseph Mercola, who amassed a significant following through his social media platforms even prior to the pandemic. Mercola was profiled in an extensive *New York Times* piece in July 2021.³ The article detailed how Mercola was able to successfully leverage various social media platforms to cast doubt on the efficacy of vaccines. His disinformation campaign landed him on the Disinformation Dozen, a report published by the nonprofit Center for Countering Digital Hate.⁴ Although prominent anti-vaccination activists appear on the list (such as presidential hopeful Robert F. Kennedy Jr.), the list is notable in that several healthcare professionals are mentioned. In addition to Mercola, the list includes two other osteopathic physicians, an OB-GYN and a chiropractor.

The damage done to the integrity of evidence-based science as a result of the spread of disinformation during the pandemic poses significant challenges, not only for public health but for trust in the government more generally.

CODES OF ETHICS AND PROFESSIONAL OBLIGATIONS OF HEALTHCARE PROFESSIONALS

Obligations of professionals to be truthful and honest are both professional and ethical obligations, as espoused through various professional codes of ethics such as the American Dental Association (“the dentist has a duty to communicate truthfully”)⁵ and the American Medical Association (“a physician shall uphold the standards of professionalism, be honest in all professional interactions, and strive to report physicians deficient in character or competence, or engaging in fraud or deception, to appropriate entities”).⁶

In addition to professional guidelines and codes of ethics, states such as California have attempted to curb misinformation by physicians. In 2022, Governor Newsom signed into law Assembly Bill 2098, which would have penalized physicians for spreading misinformation or disinformation about COVID online. This law was blocked by

U.S. District Judge William Shubb in light of legal challenges that the law was too vague and broad with regard to what was considered misinformation.⁷

THE CHALLENGE OF SOCIAL MEDIA AND DISSEMINATION OF FACTS

What is the landscape of social media today? Social media is constantly in flux. Facebook has been criticized for being a hotbed of misinformation and disinformation. Other platforms such as TikTok have become the go-to for Gen Z (who will use it as a search engine before using Google). Social media, however, are not going away. The vast majority of people in the United States use some kind of social media platform. According to the Pew Research Center, approximately 72% of the public use social media.⁸ With the deterioration of Twitter, more professionals have migrated to LinkedIn. Nonetheless, many healthcare professionals find great benefits in engaging with others on social media. Responsible use of social media can result in greater awareness of various health issues and hopefully educate the public.

The dark side of social media, however, is the use of social media to promote false or misleading information. As the Federation of State Medical Boards stated:

The dissemination of misinformation in the clinic or in public is a clear ethical violation—it endangers public health, undermines the quality of care, and damages the reputation of the medical profession. The harm is even greater when it comes to disinformation, as this implies the physician is knowingly misleading the public for personal gain.⁹

The spreading of misinformation is a source of concern not only for responsible members of the healthcare professions, but it is also a source of great concern for Americans. In a 2022 Pew Charitable Trust survey, 70% of respondents viewed online misinformation as a major threat in the US.¹⁰ Although the majority of

Americans view this as a serious threat, what we as a society can actually do about it is unclear. Individuals will often use the First Amendment as a shield, even when misinformation is being propagated. But no rights are absolute, and the First Amendment does not enshrine a right to lie, especially if one holds a position of trust and authority. Just as one cannot yell “fire” in a crowded theater when no actual fire exists, individuals cannot blatantly lie without experiencing any personal consequences. As private entities, social media platforms can and should adopt practices where individuals are encouraged to be truthful. Although policing all social media users is impossible, social media platforms will remove bad actors who have repeatedly engaged in lying or deceit. Additionally, healthcare professionals should be, and are, held to a higher standard than the general public and have adapted codes of ethics and codes of conduct to reflect specific concerns related to social media use. Even before the proliferation of social media, however, truthfulness has been an ethical obligation of professionals.

Professional guidelines do exist regarding the use of social media. For instance, the AMA Code of Ethics acknowledges the positive aspects of social media use by physicians, but also highlights the potential risks. Interestingly, the Code focuses mostly on maintaining patient privacy and professional boundaries but says little about the duty of physicians to be truthful in their social media postings. For instance, sub-part (f) of the opinion “Professionalism in the Use of Social Media” states:

When physicians see content posted by colleagues that appears unprofessional they have a responsibility to bring that content to the attention of the individual, so that he or she can remove it and/or take other appropriate actions. If the behavior significantly violates professional norms and the individual does not take appropriate action to resolve the situation, the physician should report the matter to appropriate authorities.¹¹

This places a significant responsibility on physicians to police the content of other physicians. Some physicians do spend an inordinate amount of time challenging inaccurate or blatantly false information online, such as Dean Peter Hotez of the National School of Tropical Medicine at Baylor College of Medicine. However, how many physicians engage in some kind of similar policing behavior is unclear.

This same opinion states that online content posted by physicians may affect their careers, their reputations, and even trust in the medical profession. For instance, Columbia University finally severed its relationship with celebrity physician Dr. Oz apparently due to his pattern of misstatements and falsehoods related to quack treatments such as hydroxychloroquine for COVID.¹² The Select House Committee on the Coronavirus Crisis issued a report in August 2022 containing emails one-time Senate candidate Dr. Oz sent to senior Trump administration officials urging approval for doctors to administer hydroxychloroquine as a treatment for COVID-19 before clinical trials were complete and offering to fund patient trials himself.¹³ Additionally, the American Dental Association also severed ties with him in 2013 due to misstatements, long before COVID-19.¹⁴

Senator Daniel Patrick Moynihan famously stated that “Everyone is entitled to his own opinion but not his own facts.”¹⁵ On the other hand, philosopher Friedrich Nietzsche said, “it is precisely facts that do not exist, only interpretations.”¹⁶ This is seemingly a day and age when individuals have taken Nietzsche’s observation to an absurd level. Without a common understanding of facts about the world, having a healthy and thriving society is impossible. Although facts about the world change, being committed to the notion that facts about the world do exist is important. Those facts, however, require interpreting them in the best light possible. But when well-established facts about the nature of disease, how it is spread, and how to mitigate risk are constantly undermined, members of society will inevitably lose

whatever trust they may have in public health, science, and medicine.

Because social media companies are not regulated like other traditional forms of media, these private companies have little incentive to create their own rules for their users. If anything, social media platforms such as Twitter have become even more toxic under new leadership. If social media companies themselves cannot regulate their users’ content adequately, then it falls squarely on the shoulders of healthcare professionals themselves to disseminate content that is truthful and accurate and for their professional societies to promote the social contract that allows for the profession to self-regulate.

HEALTHCARE PROFESSIONALS’ OBLIGATION TO SELF-REGULATE

However, some of the worst offenders have been healthcare professionals themselves. What can be done to ensure that healthcare professionals are disseminating truthful and accurate information? This can start as early as one’s training. Students should be taught about the negative consequences of posting inaccurate or false content on social media and reminded of their ethical obligation and professional duty to put the best interests of patients as their primary concern and to be truthful and accurate in their dealings with patients, peers, and the public. Such negative consequences were highlighted in 2021 by the FSMB Board of Directors, which issued this strongly worded statement about physicians who engage in misinformation:

Physicians who generate and spread COVID-19 vaccine misinformation or disinformation are risking disciplinary action by state medical boards, including the suspension or revocation of their medical license. Due to their specialized knowledge and training, licensed physicians possess a high degree of public trust and therefore have a powerful platform in society, whether they recognize it or not. They also have an ethical and professional

responsibility to practice medicine in the best interests of their patients and must share information that is factual, scientifically grounded and consensus-driven for the betterment of public health. Spreading inaccurate COVID-19 vaccine information contradicts that responsibility, threatens to further erode public trust in the medical profession and puts all patients at risk.¹⁷

AI AND HEALTH MISINFORMATION

Now with the rise of AI-assisted technologies such as ChatGPT and Bing's new AI-assisted search engine, new concerns are arising that misinformation and disinformation about health will even more greatly proliferate and policing it will become an even greater challenge. Although the moral panics that usually accompany the rise of a new technology should be avoided, developing a cogent response to AI-assisted technology and how it may exacerbate the infodemic of the last few years is imperative. This will require a coordinated effort by healthcare leadership as well as healthcare professionals themselves. In fact, prior to the pandemic, physicians were called upon to correct misinformation and direct patients to reliable sources of information. Writing in the *AMA Journal of Ethics*, Wu and McCormick urged "that healthcare professionals have an ethical obligation to correct false or misleading health information, share truthful health information, and direct people to reliable sources of health information within their communities and spheres of influence. After all, health and well-being are values shared by almost everyone."¹⁸ The public's health and society's trust in healthcare professions hang in the balance.

Nanette Elster JD, MPH is an associate professor at the Neiswanger Institute for Bioethics, Loyola University Chicago Stritch School of Medicine.

Kayhan Parsi, JD, PhD, HEC-C is a professor of bioethics and health policy

and graduate program director of the online master's and doctoral programs in bioethics at the Neiswanger Institute for Bioethics, Loyola University Chicago Stritch School of Medicine.

ENDNOTES

1. David J. Rothkopf, *When the Buzz Bites Back*, WASH. POST (May 11, 2003), <https://www.washingtonpost.com/archive/opinions/2003/05/11/when-the-buzz-bites-back/bc8cd84f-cab6-4648-bf58-0277261af6cd>.
2. Kaleb Michaud et al., *Experiences of Patients With Rheumatic Diseases in the United States During Early Days of the COVID-19 Pandemic*, <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7264613>, ACR OPEN RHEUMATOL 2(6): 335–343 (2020).
3. Sheera Frenkel, *The Most Influential Spreader of Coronavirus Misinformation Online*, N.Y. TIMES (July 24, 2021, updated Nov. 25, 2022), <https://www.nytimes.com/2021/07/24/technology/joseph-mercola-coronavirus-misinformation-online.html>.
4. *The Disinformation Dozen*, CTR. FOR COUNTERING DIGITAL HATE (Mar. 24, 2021), <https://counterhate.com/research/the-disinformation-dozen>.
5. ADA CODE, sec. 5, *Veracity*, <https://www.ada.org/about/principles/code-of-ethics/veracity>.
6. AMA CODE OF MED. ETHICS, principle II (rev. June 2001), <https://code-medical-ethics.ama-assn.org/principles>.
7. Brendan Pierson, *California Law Aiming to Curb COVID Misinformation Blocked by Judge*, REUTERS (Jan. 26, 2023), <https://www.reuters.com/business/healthcare-pharmaceuticals/california-law-aiming-curb-covid-misinformation-blocked-by-judge-2023-01-26>.
8. *Social Media Fact Sheet*, Pew Rsch. Ctr. (Apr. 7, 2021), <https://www.pewresearch.org/internet/fact-sheet/social-media>.
9. FED. OF STATE MED. BDS., PROFESSIONAL EXPECTATIONS REGARDING MEDICAL INFORMATION AND DISINFORMATION (Apr. 2022), <https://www.fsmb.org/siteassets/advocacy/policies/ethics-committee-report-misinformation-april-2022-final.pdf>.
10. Laura Silver, *Americans See Different Global Threats Facing the Country Now Than in March 2020*, Pew Rsch. Ctr. (June 6, 2022), <https://www.pewresearch.org/short-reads/2022/06/06/americans-see-different-global-threats-facing-the-country-now-than-in-march-2020>.
11. AMA CODE OF MED. ETHICS, Op. 2.3.2 (Professionalism in the Use of Social Media), <https://code-medical-ethics.ama-assn.org/ethics-opinions/professionalism-use-social-media>.
12. C. Crist, *Columbia University Medical Center Cuts Ties with Dr. Oz*, WEBMD (May 5, 2022), <https://www.webmd.com/a-to-z-guides/news/20220505/columbia-cuts-ties-dr-oz>.
13. Matthew Loh, *Emails Show Mehmet Oz Pushed Jared Kushner and the White House to Use an Anti-Malaria Drug as a COVID Treatment, Which the WHO Later Strongly Recommended Against*, INSIDER (Aug. 25, 2022, 2:03 AM CDT), <https://www.businessinsider.com/dr-oz-jared-kushner-white-house-push-unproven-drug-covid-2022-8>.
14. Michael Quirk, *ADA Severs Ties with Dr. Oz over Dental Amalgam Statement*, DENTAL PRODS. REP. No. 6, June 18, 2013, <https://www.dentalproductsreport.com/view/ada-severs-ties-dr-oz-over-dental-amalgam-statement>.
15. Robert Abare, *Daniel Patrick Moynihan's Legacy of Bipartisan, Fact-Based Problem Solving Is More Important Than Ever*, URB. INST. (Nov. 7, 2018), <https://www.urban.org/urban-wire/daniel-patrick-moynihans-legacy-bipartisan-fact-based-problem-solving-more-important-ever>.
16. Etana Dang, *No Facts, Only Interpretations: Friedrich Nietzsche*, MEDIUM (Sept. 26, 2020), <https://medium.com/novidem-magazine/no-facts-only-interpretations-friedrich-nietzsche-6866caacd661>.
17. Federation of State Medical Boards, *"Spreading COVID-19 Vaccine Misinformation May Put Medical License at Risk"* (July 29, 2021), <https://www.fsmb.org/advocacy/news-releases/fsmb-spreading-covid-19-vaccine-misinformation-may-put-medical-license-at-risk>.
18. Joel T. Wu & Jennifer B. McCormick, *Why Health Professionals Should Speak Out Against False Beliefs on the Internet*, 20 AMA J. ETHICS. E1052–E1058 (2018), <https://journalofethics.ama-assn.org/article/why-health-professionals-should-speak-out-against-false-beliefs-internet/2018-11>.