

Capitalising on social media marketing to raise confidence in COVID-19 public health information and vaccines

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Abstract

Widespread misinformation about COVID-19 has incited harmful behaviour that has undermined the public health response to the global pandemic, and posed a major threat to public health. To our detriment, social media has contributed to the spreading of misinformation and exacerbated its effects, including reduced willingness to accept a COVID-19 vaccine. With the recent approval of several COVID-19 vaccines and failure of current strategies to combat misinformation, it is crucial to develop new strategies. A social media marketing approach that builds trust in public health information has shown promise in other areas of healthcare, and could be beneficial to improving vaccine positivity and compliance with public health guidelines.



Social media. It's where more than half of the world's population, or 3.8 billion people, spend approximately six hours per day consuming, sharing, and creating information.¹ It's not necessarily the source we turn to, but the place we are most likely to be exposed to and influenced by fashion, food, travel, entertainment, and perhaps most alarmingly, news. I say alarmingly because the concept of news, which used only to include the reporting of factual information as it relates to current events, has been transformed into a slew of opinions rooted in falsehoods or misinformation. To our detriment, this phenomenon poses serious risks to societal well-being, as evidenced by the major threat that misinformation about COVID-19 posed to public health in 2020.²

The danger of misinformation

Throughout the pandemic, several rumours, hoaxes, and misinformation have persisted on social media platforms regarding the origin, prevention, treatment, and outcomes of COVID-19.³ However, it's not the existence of misinformation that poses a threat *per se*, but its

ability to drive potentially harmful decisionmaking and behaviour. To this point, a recent survey, conducted across the UK, Ireland, the USA, Mexico, and Spain, demonstrated a clear link between people's susceptibility to misinformation and both compliance with COVID-19 public health guidance and willingness to vaccinate.² Widespread misinformation about COVID-19 has led to confusion among the general population as well as healthcare providers, and has had significant consequences including: creating social stigma around COVID-19;

reducing adherence to social distancing and home quarantine recommendations; and increased questioning regarding the legitimacy of scientific discoveries involving potential treatments or vaccines.3 In several other instances, the negligent spread of misinformation resulted in even more devastating outcomes. In Nigeria, for example, numerous cases of chloroquine (a drug used to treat malaria) overdosing were observed following the spread of misinformation regarding the effectiveness of the drug against COVID-19.4 In India, a father of three committed

suicide after over-consuming online content about the virus led him to believe he was infected. 5

Although social media is not entirely to blame, its very nature exacerbates the detrimental effects of misinformation,³ and undermines the public health response to the global pandemic. Compared to traditional media, social media has a wider and faster reach, often reports and spreads unreliable demographic data, and allows open conversation to occur on a much larger scale. Additionally, despite easy access to reliable and accurate information about COVID-19, from national and international agencies such as the WHO, there are still small groups of people who find misinformation about COVID-19 more reliable than accurate information.² This suggests that people either don't understand accurate information, have lost trust in the people providing the information, or have fundamentally different beliefs or views than those represented by accurate information or its providers.

Whatever the reason, misinformation, and the ultimate influence it has on healthy behaviours essential to protecting against COVID-19, highlights the need for the development of strategies to improve critical thinking and trust in science, and combat mis- and disinformation.

Curbing misinformation on social media platforms

An obvious strategy to mitigate misinformation involves fact-checking or removal of harmful misinformation on social media platforms using,

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for example, advanced natural language processing or textmining technologies.⁶ Such data-mining algorithms have previously been used in the detection and removal of misinformation on social media,7 and major social media platforms such as Twitter and Reddit have implemented these digital filters to successfully identify and remove fake accounts and product reviews.3 A prominent example is the removal of several pieces of misinformation about the severity of COVID-19 spread by former U.S. President Donald Trump on Facebook and Twitter.8

Another strategy would be to promote accurate information. Indeed, the WHO has partnered with several social media and tech giants such as Facebook, Google, LinkedIn, Reddit, and Twitter to mitigate misinformation by promoting crucial updates from healthcare agencies.^{3,9} Still, mis- and disinformation are rampant on social media, and evidence from political communication and social psychology studies indicate that fact-checking is of limited use and has the potential to worsen the situation by motivating audiences to defend their preexisting beliefs.⁶ This calls for the development of new strategies.

Time for a different strategy

The varied nature and audiences of COVID-19 misinformation suggests that multiple approaches aimed at different audiences would be more effective in combating misinformation. One such strategy includes the use of social media marketing in health promotion campaigns. In addition to the unbelievably high number of social media users around the world, an estimated 59% of the global population are internet users, 67% of which use their mobile phone to access the internet.¹ Taking advantage of these numbers and the increased need for ondemand access to accurate information could improve the effectiveness of public health strategies against COVID-19, when implemented correctly. Using social media marketing to spread public health messages has previously been implemented to increase, for example, human papillomavirus vaccination education.^{10,11} Although these studies did not report increased vaccination rates, they and others recognise the potential of social media marketing in health communication; and highlight the importance of appealing to both logic and emotion to build trust in accurate information that will translate health messaging into action.^{12,13}

Social media marketing strategies in which credible well-informed members of the community are involved could be crucial in establishing or rebuilding trust in accurate information and mitigating misinformation.^{14,15} A significant contributor to misinformation susceptibility is distrust in the agencies or individuals providing the accurate information. After all, emotion plays an important role in decision-making.^{13,16} It is, therefore, unsurprising that audiences are less likely to adhere to public health recommendations from people they don't trust. Communication of accurate information from credible members of the community that the audience already trusts, e.g., doctors and nurses, reputable scientists and science teachers, but also celebrities and social media influencers, could increase confidence in accurate information, especially when communicated on platforms they already frequent.

As Medical Writing went to press, more than 2.4 million people had died from COVID-19, while more than 110 million had been confirmed positive for the virus. ¹⁷ On top of the tragic loss of loved ones, many have lost their jobs and are unable to support themselves and their families, while others have suffered mental breaks and burnout. With the approval of several COVID-19 vaccines, we find ourselves at a pivotal point in the pandemic. Gaining public trust and combating misinformation is more important than ever. The current levels of willingness to accept a COVID-19 vaccine are alarmingly low and don't meet the requirements for population

immunity¹⁸ threatening an exhausted population with the prolongation of an already dire situation. Capitalising on social media marketing in a way that actively rebuilds trust in accurate information could provide communities the opportunity to build scientific literacy, increase confidence in vaccines, and combat related misinformation.

Disclaimers

The opinions expressed in this article are the author's own and not necessarily shared by her employer or EMWA.

Conflicts of interest

The author declares no conflicts of interest.

References

- Kemp S. Digital 2020 Global Digital Overview. Datareportal. 2020 [cited 2020 Dec 16]. Available from: https://datareportal.com/reports/digital-2020-global-digital-overview.
- Roozenbeek J, Schneider CR, Dryhurst S, et al. Susceptibility to misinformation about COVID-19 around the world: Susceptibility to COVID misinformation. R Soc Open Sci. 2020;7(10).
- Tasnim S, Hossain MM, Mazumder H. Impact of rumors and misinformation on COVID-19 in social media. J Prev Med Public Health [Internet]. 2020;53(3): 171–4.
- Busari S, Adebayo B. CNN. 2020 [cited 2020 Dec 16]. Available from: https://edition.cnn.com/2020/03/23/ africa/chloroquine-trump-nigeriaintl/index.html.
- Wallen J. Coronavirus: Indian man 'died by suicide' after becoming convinced he was infected. Telegraph. 2020 [cited 2020 Dec 16]. Available from: https://www.telegraph.co.uk/globalhealth/science-and-disease/coronavirusindian-man-died-suicide-becoming-
- Krause NM, Freiling I, Beets B, Brossard D. Fact-checking as risk communication: the multi-layered risk of misinformation in times of COVID-19. J Risk Res. 2020;23(7–8):1052–9.

convinced-infected/.

 Shu K, Sliva A, Wang S, Tang J, Liu H. Fake News Detection on Social Media: A Data Mining Perspective. SIGKDD Explor



News. 2017;19(1):22-36.

- BBC. 2020 [cited 2020 Jan 11]. Available from: https://www.bbc.com/ news/technology-54440662.
- 9. WHO. Managing the COVID-19 infodemic: Promoting healthy behaviours and mitigating the harm from misinformation and disinformation.2020 [cited 2020 Dec 18]. Available from: https://www.who.int/news/item/23-09-2020-managing-the-covid-19-infodemicpromoting-healthy-behaviours-andmitigating-the-harm-from-misinformationand-disinformation#:~:text=An%20 infodemic%20is%20an%20overabundance, will%20continue%20to%20thrive.
- 10. Ortiz RR, Smith A, Coyne-Beasley T. A systematic literature review to examine the



potential for social media to impact HPV vaccine uptake and awareness, knowledge, and attitudes about HPV and HPV vaccination. Hum Vaccines Immunother. 2019;15(7-8):1465–75.

- Teoh D. The power of social media for HPV vaccination–not fake news! Am Soc Clin Oncol Educ B. 2019;(39):75-8.
- Harris J, Atkinson A, Mink M, Porcellato L. Young people's experiences and perceptions of YouTuber-produced health content: Implications for health promotion. Heal Educ Behav. 2020 [cited 2020 Dec 17]. Available from: https://doi.org/10.1177/ 1090198120974964.
- 13. Zhang H, Zhang R, Lu X, Zhu X. Impact of personal trust tendency on patient

compliance based on internet health information seeking. Telemed e-Health. 2020;26(3):294–303.

- Grier S, Bryant CA. Social marketing in public health. Annu Rev Public Health. 2005;26(9):319–39.
- Zhang C, Gotsis M, Jordan-Marsh M. Social media microblogs as an HPV vaccination forum. Hum Vaccin Immunother. 2013;9(11):2483–9.
- Naqvi N, Shiv B, Bechara A. The role of emotion in decision making: A cognitive neuroscience perspective. Curr Dir Psychol Sci. 2006;15(5):260–4.
- WHO. Coronavirus Disease (COVID-19) Dashboard. 2020 [cited 2020 Dec 18]. Available from: https://covid19.who.int.
- 18. Lazarus J V, Ratzan SC, Palayew A, et al.

A global survey of potential acceptance of a COVID-19 vaccine. Nat Med. 2020 [cited 2020 Dec 17]. Available from: https://doi.org/10.1038/s41591-020-1124-9.

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