

# Misinformation Galore: Literacy, the Road Ahead

**Sanju Kumawat**

## **Abstract**

The spread of fake information on various social platforms has become a serious concern the world over. The distortion of facts, modification of information and dissemination of messages among audience lead to negative cognitive as well as behavioural consequences. The situation has become even more stark after Covid-19 as lot of misinformation related to health is being spread. Hence, this study attempts to list the ways ahead to debunk misinformation suggested so far in the studies conducted on misinformation. Concerns about 'false news' have suggested different types of media literacy such as information literacy, social media literacy, and digital literacy, as well as effective message design and awareness campaigns. Research so far suggest that literacy interventions make audiences "immune" to the detrimental consequences of false information.

**Keywords:** Communication; Fake news; Literacy; Misinformation.

## **Introduction**

In the era of globalization, the advent of internet has revolutionized the world of communication but at the same time has raised concerns as well. The rapid growth of social media, 24x7 news channels, consumption of a range of media have made it very easy to propagate misinformation (Cook et al.). With each passing day, internet is booming with multiple unauthorized information, which is affecting social-political-economic aspects of every human society. Not only misinformation related to socio-political-economic aspects but also misinformation related to crucial health conditions has become an even bigger concern as people start relying on any information from internet or social media rather than relying on authentic sources of information or consulting the physicians. Dangers associated with false health communication have already been noticed in

Nigeria, where health officials discovered numerous cases of chloroquine (a malaria treatment) overdose after knowledge of the drugs' alleged usefulness in treating COVID-19 was circulated through the news media (Busari & Adebayo). Another unverified viral claim that highly concentrated alcohol can sanitise the body and kills the virus too lead to loss of lives. Furthermore, 5,876 people were hospitalised, and 60 more got total blindness as a result of another source of disinformation about a cure for COVID-19 illness (Coleman & Islam et al.). Earlier COVID-19 also, misinformation spread in 2019 during the Ebola epidemic in the Democratic Republic of the Congo, was linked to violence, mistrust, social discontent, and targeted assaults on medical personnel (WHO). Recognising the potential harm of spread of misinformation and disinformation, in early 2020 World Health Organisation declared a worldwide "infodemic" characterized by an overabundance of information, especially false and misleading information (Zarocostas). Misinformation is defined as information which is false, inaccurate and misleading modification of facts which leads to mis-perception while disinformation is defined as misinformation spread with knowledge and an intention (Wardle). Misleading information is becoming a public health concern as because of overload of information specially owing to misinformation, even right information might cease to reach the desired audience as Tasnim et al. says that overexposure to information can cause media fatigue, resulting in the cessation of beneficial actions that are necessary to safeguard people. Seeing the severity of the damage that can be done, solutions to face the infodemic have been suggested in various studies.

### **The Road Ahead**

Various types of literacy skills are suggested by the studies in the field of communication so far but the motive of each one is to debunk the spread of misinformation. Literacy is the armour to fight such 'infodemic' which has taken birth after the advent of internet.

### **Media Literacy**

To effectively debunk misinformation in any sector, media literacy is the primary solution. Being able to access, analyze, evaluate and create messages across a variety of context is being media literate (Livingstone). From the static media like television, print, radio to the dynamic platforms like social media, media literacy is needed to use every medium effectively. In general, media literacy education programmes that foster mindfulness in media consumption are needed to support people in overcoming "the

illusions of truth and the propagation of falsehoods.” Examples of such programmes include encouraging cross-referencing of multiple sources to verify the information and being open to opposing viewpoints (Lee & Shin). Underneath the term of ‘media literacy’, some major sub-literacy skills are also being included: -

### **Information Literacy**

Information literacy enables individual to rationally use information and apply knowledge (Durodolu et al.). Differentiating between media literacy and information literacy, Livingstone et al. writes, “Media literacy sees media as a lens or window through which to view the world and express oneself, while information literacy sees information as a tool with which to act upon the world.” An empirical study conducted by Jones-Jang et al. show that information literacy – but not other forms of literacy – significantly raises the possibility of spotting false news reports.

### **Social-Media Literacy**

The introduction of Web 2.0 has given rise to the social networking sites and the liberty to edit or modify any kind of information. The overload of continuously fleeting information on social media sites has generated the adverse situation where mis/disinformation has thoroughly been created and shared. Although it operates at the micro-level of societies at the nexus of online and offline places, social media literacy is becoming a pillar of the information system (Kalorth et al.). This literacy equips the user with knowledge, skill, attitude and self-efficacy to use social media effectively and further analyse, evaluate and share social media content wisely in addition with the liberty to create contents also (Sukhmayadi).

The user must be social-media literate to avoid falling victim to the dissemination of false information and fake news on social media. In a study, Hartley et al. looked at how a fictitious online user might act when confronted with bogus news on social media. The study says that depending on how hard the Digital Citizen (DC) tries to avoid believing false information, the DC’s vulnerability in this encounter will vary.

Kalorth et al. also advise implementation of ICT programmes as a potential remedy. In addition, Hartley et al. indicated that verification mechanisms from authorities are essential but occasionally fall short in order to prevent the spread of false information inside the social circles of elderly people. As a result, information literacy education should be actively

strengthened and should at the very least include the following learning indicators: 1) the fundamental knowledge of social media technologies; 2) the methods of determining reliability; and 3) social community netiquette.

### **News Literacy**

An important characteristic of an informed citizen is news literacy (Chan et al.). This is especially important in the social media sector, where false information from suspect sources with ulterior objectives has the ability to propagate swiftly through social networks and result in unfavourable outcomes. Tully et al. defines News literacy as the integration of consciousness and knowledge of news production, distribution and consumption with skills that aids news consumers to hold control over their liaison with news.

Chan et al. found that those who use various social media platforms for news but lack engagement with public figures and do not engage with news are those with lower degrees of news literacy. These users may be more likely to be misinformed as a result of inadvertent news exposure. As they utilise social media the most, they can be more exposed to misleading information and fake news. Researchers and media educators must keep investigating and recommending public or educational projects that promote increased news interaction on social media.

### **Digital Literacy**

UNESCO defined digital literacy as the ability to access, manage, understand, integrate, communicate, evaluate and create information safely and appropriately through digital technologies and networked devices for participation in economic and social life (UNESCO). Ayu and Sari stressed on the need of collaboration between the community, social media platforms and the government to improve digital literacy. The government has to launch a digital literacy programme by actively engaging the people to educate and empower them in finding, verifying, and disseminating varied information available on digital platforms. Schools must also engage by incorporating digital literacy in the current curriculum, beginning in the early years of primary school. Revitalizing community resilience and digital literacy (Rahmaniah et al.) is another key approach which can be undertaken by the government and community as part of an early warning system in improving public immunity to infodemics. The researchers also advocate that soft skills-based curriculum

---

be rebuilt in higher education institutions to improve digital literacy and community resilience.

However, while talking about health literacy, Choukou emphasizes on the need for digital health literacy as this can enhance prevention and adherence to a healthy lifestyle, promote capacity building, allow users to make best use of the options available, and ultimately improve health outcomes by enhancing patient involvement and empowerment.

According to Chong et al. the focus of eHealth literacy assessments and suggested remedies in response to COVID-19 must go beyond clinical care settings, beyond the individual, and beyond functional health literacy (the ability to obtain pertinent health information). One strategy for addressing COVID-19-related misinformation on social media may be to increase community capacity through social engagement and conversation.

### **Designing effective Corrective Messages**

Misinformation can cause rejection of scientific consensus and people can participate in erroneous conduct, limiting the efficacy of disease preventive and control methods. As a result, it is critical to understand elements that may mitigate misperceptions and to devise communication tactics to combat misinformation. Correction on social media is an important countermeasure for internet misinformation since it debunks incorrect statements or misperceptions through posts by users (Vraga & Bode).

In their research on “Fighting Misinformation,” Y. Song et al. looked at how users’ cognitive and behavioural responses were affected by corrective messages that disproved COVID-19 misinformation on social media. They suggest that it might be beneficial to use more general statements (like highly protective) instead of specific numbers (like 92 percent protection rate) in corrective messages as assertions without statistical support evoked greater misperception reduction, higher message believability, and stronger user engagement intention. Additionally, when compared to single-modal presentations, multimodal presentations (text-based messages with images) are particularly effective in enhancing message elaboration.

Yuqi Zhang et al. conducted a thorough examination of the COVID-19 online dataset to investigate the factors that affect the efficacy of misinformation corrections. They present five conclusions regarding the successful use of corrections. First, pointing out a lot of original inaccuracy

in corrections won't make people seem less credible right away. Second, brief corrections—which should be no longer than 500 words—are more effective. Third, strong visual arguments are valued. Fourth, corrections instead of being in authoritative manner, needs to be more persuasive and kind. Fifth, influential media outlets need to do more to combat false information. Kreps & Kriner in their study suggests that the more thorough corrections that go beyond just identifying disinformation as untrue and instead actively gives context indicating why the claim was erroneous, proved more successful.

Sadhish et al. note that phone calls can broadcast information as effectively as conventional methods, and with better effects on mental health than the pre-recorded audio and text messages (Sadhish et al.). Structured websites and toll-free helplines may be developed to address the public's psychological suffering during a pandemic (Dubey et al.).

### **Awareness Campaigns/Programmes especially around vaccines**

Generating awareness especially during crises becomes the most important function of communication. Campaigns urging people to act against anti-vaccination misinformation during health crises should emphasize the dangers of misinformation and emphasize its prevalence. These messages are intended to alert viewers of the threat and should prompt the right emotional responses (Sun et al.). Health authorities should create interventions in the form of awareness campaigns using various forms of multimedia to disseminate more transparent information about the safety and efficacy of vaccines since health care providers were identified by the public as the most reliable source of information about COVID-19 vaccines. The unique technology utilized in vaccine production should also be made a part of awareness campaigns to improve the uptake of the COVID-19 vaccine (Elimat et al.).

Vaccine hesitation, including side effects, the need for immunization across age groups, and clarification of the rare hazards connected with vaccines, should also be addressed in campaigns to correct misinformation (Janmohmad et al.)

In addition, Public health campaigns targeting the hazards of COVID-19 infodemics must be developed, as well as information that teaches people how to prevent being a channel of misinformation or disinformation (Sun et al.).

Dubey et al. stresses that awareness campaigns should be organised both at the individual and community levels as well as in the rural areas. To address the issue of misinformation, working with community leaders in awareness campaigns in remote communities to provide access to credible information released by local and international health authorities could also work wonders as people trust these leaders more than outsiders. There is also an urgent need for more resources (information and diagnostic kits), training, and palliative care for rural healthcare personnel to help them respond to COVID-19 and illness management skills (Okereke)

### **Involving Social Media and Influencers**

Government agencies and experts can use web-based media to counter emergencies like the COVID-19 and other similar future calamities (Alimory). To prevent social media from losing its credibility, strict governmental regulations and laws aimed at combating incorrect information, rumours on social media, disinformation, and misinformation should be implemented (Dubey et al.). Along with it, governments and stakeholders can implement critical initiatives on social media such as enacting critical policy decisions on misinformation and disinformation and conduct widespread public education on fact-checking (Demuyakor et al.). Social media influencers too can be involved in spreading awareness about the unverified anti-vaccine misinformation among the vulnerable black individuals and government should also direct the social media sites to check on those who violates the policies and disseminate anti-vaccine information (Janmohmad et al.). Verified and registered medical services organizations and experts should be more active on these platforms amidst emergencies to deliver basic information to users while keeping an eye on social media on misinformation.

### **Conclusion**

Different types of media and digital literacy seems to be the only way forward to combat misinformation. Equipping users of internet and social media with skills to create, analyse and evaluate messages on different kind of media platform would increase the efficacy and efficiency of using media in case of any public health emergency in future. While examining the interactions of 376 million Facebook users with more than 900 news sources, Anderson and Rainie discovered that people frequently look for news sources that support their opinions. This needs to be combated as the increasing number of information platforms facilitates the people to find information which are in consonance with their beliefs and ideology.

Hence, critical thinking skills becomes a very important component of any kind of skill needed to debunk misinformation and prevent it's spread.

### **Disclosure statement**

No potential conflict of interest was reported by the author(s).

### **Works Cited:**

Alomiry, Helial. "El rol de los medios sociales en la pandemia Covid-19/ The Role of Social Media in Covid-19." *Medicina Social* 15.1 (2022): 5-11.

Al-Zaman, Md Sayeed. "A thematic analysis of misinformation in India during the COVID-19 Pandemic." *International Information & Library Review* 54.2 (2022): 128-138.

Anderson, Janna, and Lee Rainie. "The Future of Truth and Misinformation Online." *Pew Research Center: Internet, Science & Tech*, 15 Sept. 2022, [www.pewresearch.org/internet/2017/10/19/the-future-of-truth-and-misinformation-online](http://www.pewresearch.org/internet/2017/10/19/the-future-of-truth-and-misinformation-online).

Busari, Stephanie, and Bukola Adebayo. "Nigeria Records Chloroquine Poisoning After Trump Endorses It for Coronavirus Treatment." *CNN*, 23 Mar. 2020, [edition.cnn.com/2020/03/23/africa/chloroquine-trump-nigeria-intl/index.html#:~:text=Health%20officials%20in%20Nigeria%20have,city%20after%20taking%20the%20drug](http://edition.cnn.com/2020/03/23/africa/chloroquine-trump-nigeria-intl/index.html#:~:text=Health%20officials%20in%20Nigeria%20have,city%20after%20taking%20the%20drug).

Chan, Michael, Francis LF Lee, and Hsuan-Ting Chen. "Examining the roles of multi-platform social media news use, engagement, and connections with news organizations and journalists on news literacy: A comparison of seven democracies." *Digital Journalism* 9.5 (2021): 571-88.

Coleman, By Alistair. "'Hundreds Dead' Because of Covid-19 Misinformation." *BBC News*, 12 Aug. 2020, [www.bbc.com/news/world-53755067](http://www.bbc.com/news/world-53755067).

Cook, John, Ullrich Ecker, and Stephan Lewandowsky. "Misinformation and how to correct it." *Emerging trends in the social and behavioral*

- 
- sciences: An interdisciplinary, searchable, and linkable resource* (2015): 1-17.
- Demuyakor, John, Isaac Newton Nyatuame, and Samuel Obiri. "Unmasking covid-19 vaccine "infodemic" in the social media." *Online Journal of Communication and Media Technologies* 11.4 (2021): e202119.
- Durodolu, Oluwole Olumide, and Samuel Kelechukwu Ibenne. "The fake news infodemic vs information literacy." *Library Hi Tech News* 37.7 (2020): 13-14.
- El-Elimat, Tamam, et al. "Acceptance and attitudes toward COVID-19 vaccines: A cross-sectional study from Jordan." *Plos one* 16.4 (2021): e0250555.
- Gu, Chao, and Yi Feng. "Influence of Public Engagement with Science on Scientific Information Literacy During the COVID19 Pandemic: Empirical Evidence from College Students in China." *Science & education* 31.3 (2022): 619-33.
- Hartley, Kris, and Minh Khuong Vu. "Fighting fake news in the COVID-19 era: policy insights from an equilibrium model." *Policy Sciences* 53.4 (2020): 735-58.
- Islam, AKM Najmul, et al. "Misinformation sharing and social media fatigue during COVID-19: An affordance and cognitive load perspective." *Technological forecasting and social change* 159 (2020): 120201.
- Janmohamed, Kamila, et al. "Interventions to mitigate COVID-19 misinformation: a systematic review and meta-analysis." *Journal of Health Communication* 26.12 (2021): 846-57.
- Jones-Jang, S. Mo, Tara Mortensen, and Jingjing Liu. "Does media literacy help identification of fake news? Information literacy helps, but other literacies don't." *American behavioral scientist* 65.2 (2021): 371-88.
- Kalorth, Nithin, Manish Verma, and Malvika Sagar. "Information and User: Social Media Literacy in Digital Societies." *Journal of Content, Community and Communication* 12 (2020): 263-69.
- Kreps, Sarah E., and Doug Kriner. "The Covid-19 infodemic and the efficacy of corrections." *Available at SSRN* 3624517 (2020).

Lee, Eun-Ju, and Soo Yun Shin. "Mediated misinformation: Questions answered, more questions to ask." *American Behavioral Scientist* 65.2 (2021): 259-76.

Livingstone, Sonia. "Media literacy and the challenge of new information and communication technologies." *The communication review* 7.1 (2004): 3-14.

Livingstone, Sonia, et al. "Converging traditions of research on media and information literacies." *Handbook of research on new literacies* (2008): 103-32.

Okereke, Melody, et al. "COVID-19 misinformation and infodemic in rural Africa." *The American Journal of Tropical Medicine and Hygiene* 104.2 (2021): 453.

Sadish, D., Achyuta Adhvaryu, and Anant Nyshadham. "(Mis) information and anxiety: Evidence from a randomized Covid-19 information campaign." *Journal of Development Economics* 152 (2021): 102699.

Song, Yunya, Sai Wang, and Qian Xu. "Fighting misinformation on social media: effects of evidence type and presentation mode." *Health Education Research* 37.3 (2022): 185-98.

Sukmayadi, Vidi. "Cultivating Agents of Social Media Literacy through Service Learning." *1st UPI International Conference on Sociology Education*. Atlantis Press, 2016

Sun, Yanqing, et al. "The battle is on: Factors that motivate people to combat anti-vaccine misinformation." *Health Communication* 37.3 (2022): 327-36.

Tasnim, Samia, Md Mahbub Hossain, and Hoimonty Mazumder. "Impact of rumors and misinformation on COVID-19 in social media." *Journal of preventive medicine and public health* 53.3 (2020): 171-74.

Tully, Melissa, et al. "Defining and conceptualizing news literacy." *Journalism* 23.8 (2022): 1589-606.

UNESCO. "Digital Literacy and Beyond." *UNESCO*, 2018, [www.unesco.org/sites/default/files/Digital%20literacy%20and%20beyond%2C%20UNESCO.pdf](http://www.unesco.org/sites/default/files/Digital%20literacy%20and%20beyond%2C%20UNESCO.pdf). Accessed 10 Apr. 2023.

Vraga, Emily K., and Leticia Bode. "Correction as a solution for health misinformation on social media." *American Journal of Public Health* 110.S3 (2020): S278-S280.

World Health Organization. "Ebola Virus Disease – Democratic Republic of the Congo." *World Health Organization*, 18 Apr. 2019, [www.who.int/emergencies/disease-outbreak-news/item/2019-DON147](http://www.who.int/emergencies/disease-outbreak-news/item/2019-DON147). Accessed 10 Apr. 2023.

Zarocostas, John. "How to fight an infodemic." *The lancet* 395.10225 (2020): 676.

Zhang, Yuqi, et al. "Investigation of the determinants for misinformation correction effectiveness on social media during COVID-19 pandemic." *Information Processing & Management* 59.3 (2022): 102935.