

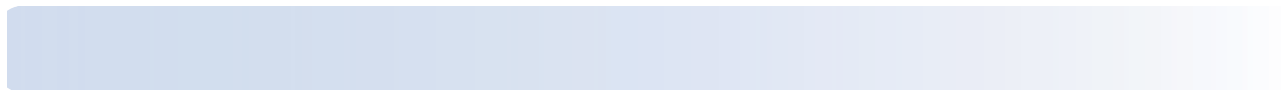
4.11 Misinformation and disinformation

Misinformation is false information that is spread, regardless of intent to mislead. Disinformation is the intentional spreading of misinformation. For example, a political opponent or foreign government may engage in a disinformation campaign to achieve a particular goal, such as an electoral advantage or undermining of trust in democratic institutions, independent media, and scientific knowledge. Organized groups may pursue other goals, such as making money or advancing an ideology. Because intent can be harder to prove, we use the term misinformation here. While misinformation has been with us for centuries, the internet has transformed its scale, drivers and consequences, as well as possible responses to it.

During the COVID-19 pandemic, people began to use the term 'infodemic' (or 'mis-infodemic') to capture the parallel between the rapid spread of viruses and the rapid spread of misinformation about both COVID-19 and measles to prevent, manage it, and mitigate its economic and social impacts. Existing misinformation efforts related to vaccines were often re-directed to COVID-19 vaccines once they became available, and many anti-vaccine efforts were launched.

In 2020, the Broadband Commission for Sustainable Development sponsored by the International Telecommunication Union (ITU) and United Nations Educational, Scientific and Cultural Organization (UNESCO) published a report about countering digital misinformation while respecting freedom of expression.⁽¹²⁾

The report describes five stages in the misinformation life cycle:



Monitoring and fact-checking

- Includes monitoring and exposing misinformation (e.g., debunked claims) and fact-checking new claims
- Judgement of trained professionals employed by independent organisations, even when helped by automation, can mitigate the risk of infringing on freedom-of-expression rights

Credibility labeling

- Includes content-verification tools, web-content indicators, signposting (pointing to credible evidence sources), and website-credibility labeling

Educational

- Includes developing citizens' media and information literacy (e.g., critical thinking and digital-verification skills), as well as journalists' information literacy

Curatorial

- Includes pointing users to official credible evidence sources, and can be used by news media, social media, messaging and search platforms
- Can be misused as a form of prior censorship

Technical and algorithmic

- Covers a spectrum from human learning to machine learning and other artificial-intelligence approaches to identify misinformation, provide additional context, and limit spread
- Automation of appeal processes can infringe on freedom-of-expression rights

Counter-misinformation campaigns

- Includes specialised networks to develop counter-narratives to challenge misinformation and mobilising online communities to spread high-quality evidence

Normative

- Includes public condemnations of acts of misinformation and recommendations to address them, often by political and social leaders

Economic

- Includes advertising bans, demonetising specific content (e.g., COVID-19 content) and other approaches to remove incentives for misinformation

Legislative and other policy

- Includes criminalising acts of misinformation, directing internet communication companies to take down content, and providing material support for credible information sources
- Can be misused to weaken legitimate journalism and infringe on freedom-of-expression rights

The report does not address the evidence underpinning these responses, although many of these evidence syntheses exist. For example, one meta-analysis, older synthesis (AMSTAR rating 7/11 and search date of 2017) found that correcting misinformation (i.e., response type 1) has a moderate influence on belief in misinformation (the greater effects in health than marketing or politics), rebuttals are more effective than forewarnings, and appeals to coherence are more effective than fact-checking and appeals to credibility. (13) Our aim here is not to provide the current state of knowledge about these responses, or to explore the psychology of misinformation that underpins them, but to note that evidence syntheses on misinformation responses exist and linking evidence syntheses are needed. Such syntheses could provide an evolving understanding of this knowledge, including how this major subgroup (e.g., among those who are more susceptible to misinformation or hold particular beliefs/stems) and contexts (e.g., polarized societies).

As we discussed in the introduction, if we can continue building the capacity, opportunity and motivation to use evidence (in this case to address misinformation about societal challenges), while also exercising judgment, humility and empathy, the combination will serve us well. Even then we can rely on both the rigorous testing and reliable self-correcting systems that typically operate in the health sector, we can do better. As Ross Douthett observes in his memoir about living with Lyme disease, we need more people and institutions that around the world are both: 1) accept the core achievements of modern science, treat popular information sources at least as skeptically