4.11 Misinformation and infodemics

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 very difficult 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 the virus and the rapid spread of misinformation about both COVID-19 and measures to prevent it, 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 new 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:

- Instigators and beneficiaries, where questions arise about motivation (and goals as described above)
- Agents, where questions arise about techniques, such as bots and fake accounts or false identities
- Messages, where questions arise about formats, with three of the common ones being:
  - emotive claims and narratives, which often mix emotional language, lies or incomplete information, personal opinions, and elements of truth
  - fabricated, de-contextualized or fraudulently altered images and videos, as well as synthetic audio
  - fabricated websites and polluted datasets
- Intermediaries, where questions arise about platforms (e.g., dark web, social media, messaging, and news media) and the platform features that are being exploited (e.g., algorithms and business models)
- Targets and interpreters, where questions arise about who is affected (e.g., individuals such as citizens, scientists and journalists; organizations such as research centres and news agencies; communities such as Black communities and Indigenous peoples; and systems such as electoral processes) and how they react (e.g., ignoring or sharing to debunk the misinformation)

The report distinguishes misinformation from parody and satire, which can both mislead those without the capacity to identify them and counter misinformation by highlighting its absurd elements.

The Broadband Commission for Sustainable Development report also presents potential responses to misinformation and notes examples of intersections with freedom-of-expression rights. The UNESCO report notes the potential complementarity of these responses and the need to ensure the alignment of any responses used.

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 organizations, 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 private 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 specialized units to develop counter-narratives to challenge misinformation and mobilizing online communities to spread high-quality evidence

Normative

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

Economic

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

Legislative and other policy

- Includes criminalizing 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

Investigative

(which can inform legislative and other responses)

- Examines the instigators, degree and means of spread, money involved, and affected communities

The report does not address the evidence underpinning these responses, although many such evidence syntheses exist. For example, one medium-quality, 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 (with 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 may underpin them, but to note that evidence syntheses on misinformation responses exist and living evidence syntheses are needed. Such syntheses could provide an evolving understanding of what is known, including how this may vary by groups (e.g., among those who are more susceptible to misinformation or hold particular belief systems) 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 judgement, humility and empathy, the combination will serve us well. Even when 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 Douthat observes in his memoir about living with Lyme disease, we need more people and institutions with a worldview that both: 1) "accepts the core achievements of modern science, treats populist information sources at least as skeptically as it treats establishment sources and refuses to drink the … Kool-Aid"; and 2) "recognizes that our establishment fails in all kinds of ways, that there's a wider range of experiences that fits within the current academic-bureaucratic lines…."(14) Most of us have benefited tremendously from fields like medicine that combine rigorous testing and fairly reliable self-correcting systems. But some – like Ross Douthat – have not. He notes that, "I am more open-minded about the universe than I was seven years ago, and much more skeptical about anything that claims the mantle of consensus. But I am trying not to let that mix of open-mindedness and skepticism decay into a paranoid-outsider form of groupthink."(14)