



Report to the UN Special Rapporteur on the Promotion and Protection of the Right to Freedom of Opinion and Expression

Disinformation and the role of scientists

The propagation of disinformation poses a major threat to public understanding of, and trust in, scientific research. The International Science Council (ISC) works on behalf of and represents the global scientific community to advance science, to catalyse, convene and share scientific expertise, to provide advice and influence on major issues of concern to both science and society, and to promote and safeguard freedom and responsibility in science. ISC's engagement in this area is based on the ISC Statutes¹ and underpinned by international human rights instruments relevant to science and scientists. The Committee for Freedom and Responsibility in Science oversees the Council's commitment to this principle.

ISC Statute 7: Principle of Freedom and Responsibility:

The free and responsible practice of science is fundamental to scientific advancement and human and environmental wellbeing. Such practice, in all its aspects, requires freedom of movement, association, expression and communication for scientists, as well as equitable access to data, information, and other resources for research. It requires responsibility at all levels to carry out and communicate scientific work with integrity, respect, fairness, trustworthiness, and transparency, recognising its benefits and possible harms.

In advocating the free and responsible practice of science, the Council promotes equitable opportunities for access to science and its benefits, and opposes discrimination based on such factors as ethnic origin, religion, citizenship, language, political or other opinion, sex, gender identity, sexual orientation, disability, or age.

Science is a global public good, and the understanding of scientific research is critical to global socio-economic advancement, to environmental protection, and to human wellbeing. The United Nations Universal Declaration of Human Rights² makes explicit the right to benefit from advances in science and technology, and to access scientific information, whether as a practising scientist or a lay citizen. Thus, researchers have a responsibility not only to disseminate scientific knowledge within their academic community, but also to ensure that it is made accessible to the public.

¹ <https://council.science/publications/statutes-and-rules-of-procedure/>

² <https://www.un.org/en/universal-declaration-human-rights/>



The digital age has irrevocably changed the circumstances under which news and information are communicated. While this offers valuable opportunities for scientists to engage with public audiences, a particular concern among the scientific community is the growing dissemination of manipulated, biased or fabricated science-related information, facilitated by modern technologies such as social media. Furthermore, the politicisation of some issues at the science-society interface has contributed to the adoption of ideological positions or anti-scientific stances that are diametrically opposed to and in conflict with the scientific consensus on these issues. Scientists and the general public increasingly find themselves confronted by sceptical, distrustful and, at times, openly hostile movements that question the scientific method and modes of reasoning, and undermine academic integrity. These developments constitute a fundamental attack on the public value of science, and pose a serious threat to the processes by which science informs policymaking.

In response to the rise of disinformation, it is incumbent upon scientists and scientific organisations to re-evaluate their role as mere brokers of scientific information. In engaging on controversial and politicised scientific issues, it is vital to respect moral intuitions, religious and other belief systems, cultural diversity, and knowledge systems that complement the established scientific method (e.g. Dietz, 2013; Bendixen, 2020; Meyer, 2014). An evidence-based understanding of how people receive and respond to messages, both individually and collectively, is also key to effective public engagement (e.g. Fischhoff, 2013). To this end, scientists involved in communication with policymakers and civil society must be informed by the social and behavioural sciences, trained to exercise judgment, and supported in conveying technical information to different sectors of society in a comprehensible manner. This requires not only leadership at the nexus of science education, communication and public outreach, but also by the institutions within which scientific research is organised.

Growing pressures on researchers, including teaching responsibilities, funding instability and output-based assessment, pose a major challenge to their ability to cultivate the necessary skills and knowledge to engage in effective science communication. Efforts to combat disinformation must therefore consider the wider context in which scientists operate, and the structural support required to realise the potential of the scientific community in this endeavour.

References

- Bendixen, T. (2020) How cultural evolution can inform the science of science communication—and vice versa *Humanities and Social Sciences Communications* **7** <https://doi.org/10.1057/s41599-020-00634-4>
- Dietz, T. (2013) Bringing values and deliberation to science communication *PNAS* **110** (Supplement 3): 14081-14087. <https://doi.org/10.1073/pnas.1212740110>
- Fischhoff, B. (2013) The sciences of science communication *PNAS* **110** (Supplement 3): 14033-14039. <https://doi.org/10.1073/pnas.1213273110>
- Meyer, G. (2014) Expectations and beliefs in science communication: Learning from three European gene therapy discussions of the early 1990s *Public Understanding of Science* **25** (3): 317-331. <https://doi.org/10.1177/0963662514552955>

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