

Ethical perspectives



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Ethics is the systematic study of the rules, beliefs and values that determine human behaviour in a given social context and the attempt to derive specific principles to support decision-making. These principles are usually referred to as ethical theories ^[59]. Dating back around 2,500 years, it is probably one of the oldest scientific disciplines. Applied ethics also plays a key role in academia: Today, a significant portion of research projects must be approved by an ethics committee before they can be carried out, taking into account the potential for harm to individuals and entire populations. Consequently, ethics is also important in science communication – and as science communication draws from numerous disciplines, relevant ethical challenges should also be discussed from various perspectives ^[60].

One perspective is that of the *ownership of knowledge*: Given that research significantly shapes our world and can have a major impact on the life and autonomy of individuals, the public has a right to be informed about research activities and results in an understandable way. This is particularly important in democratic societies, which rely on informed decisions by their members ^[61, 62]. But open access to any kind of knowledge can also be problematic: Should the public be informed in an easy read on how to build a biological weapon just to respect the principle of common knowledge ownership ^[60]?

Another angle to consider is the potential *societal impact* of science communication: The science of science communication has become a well-established discipline that has yielded numerous instruments to make science communication more effective. Institutions and companies invest considerable budgets, as they have understood its potential to support their mission ^[62]. Science communication has become an influential element in modern societies, constantly catalysed by ever-developing new forms of

electronic media – the communication of research results increasingly determines political discussions and decisions. However, communication about a specific research result could also compete with institutional or individual interests of the communicating party. Irrespective of the source of funding, whether public or commercial, the communication of scientific findings carries the potential to adversely impact future financial support: Research is characterised by uncertainty of outcome^[63, 64], which poses the risk that a research result may interfere with the objectives of the funding party. The decision of what to communicate and what not to communicate is therefore already ethically charged.

Finally, the style of communication should consider the recipients' *human integrity*: Conveying complex content to lay audiences requires simplification, contextualisation and framing, which increases the risk of message bias (e.g. towards a desired effect)^[62]. Being aware of the challenges in the competitive field of science, the science communicator should nonetheless strive to communicate in an unbiased, truthful and accurate way while respecting the harm limitation principle^[60], which is best achieved in institutions where such a culture is well established. As a basic principle, science communication should support human integrity and avoid any kind of harm or stigmatisation of individuals or populations^[1, 60, 62].



Recommended reads:

- ◆ Medvecky F. & Leach J. (2017), *The ethics of science communication*. JCOM 16(4):E. <https://doi.org/10.22323/2.16040501>
- ◆ Cormick C. (2019), *The science of communicating science: the ultimate guide*. CSIRO Publishing. ISBN: 978-1486309818
- ◆ Clarke M. (2009), *Ethics of science communication on the web*. Ethics Sci Environ Polit 9:9-12. <https://doi.org/10.3354/esep00096>