

Goals of science communication



I. BASICS

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Disseminating information and building society's trust in science are the central goals driving science communication, and they are mutually reinforcing: In addition to the ethical obligation to inform the public about their research activities (see Essential 50), individual researchers and entire research institutions will increase their chances of being perceived as credible and trustworthy if they are visible and transparent towards the public. On the other hand, the information communicated will have a greater impact if the audience considers the authors to be trustworthy. Science will be discussed publicly whether or not scientists inform the public about their research. However, without clear and understandable communication from research institutions, universities or companies about their ongoing research, public discourse may rely increasingly on individual beliefs about research rather than on academic reality. It may also be more susceptible to misinformation, ignorance, denial, political instrumentalisation, and many other inappropriate influences. Recent public debates on climate change or vaccination are striking examples of how different actors and interest groups successfully use an increasing variety of media and methods to influence public opinion to support their own agendas, rather than to support informed democratic decision-making. Science communication is therefore a crucial tool for building stable public relations and a trusted brand ^[1,2].

However, the communicating party should be aware that science communication does not automatically contribute to more trust in science and clearer public opinion: Science cannot provide unambiguous answers, and even if scientific data were incontrovertible, individual or societal opinions will always be influenced by the political, social and cultural context, which is not necessarily scientifically justifiable ^[3], and they also tend to be issue-specific and dependent on a number of personal factors ^[4]. In this sense, science communication should not only disseminate information, but

also stimulate public critical thinking to nurture the understanding that uncertainty and ambiguity are constituents of science and research, and that any resulting controversy is a mechanism for finding scientific consensus ^[5,6]. This understanding supports a society's ability to put scientific results and many other pieces of information into perspective. Ultimately, this may be the most sustainable way to build society's trust in science. One appropriate way to achieve this is to engage in dialogue with the public, as it allows scientists to also consider societal needs when defining the scope of their research and it helps science communicators to understand what information is of interest to the public ^[3,4].

Science communication also serves the goal of creating a competitive edge in the field of science. However, this is the subject of a controversial debate, as it may interfere with the ethical obligation to communicate in an unbiased, truthful and accurate manner ^[1].



Recommended reads:

- ◆ Autzen C. & Weitkamp E. (2020), 22. *Science communication and public relations: beyond borders*. In *Science Communication*, De Gruyter Mouton, pp. 465-484. <https://doi.org/10.1515/9783110255522-022>
- ◆ Betz G & Lanius D. (2020), 1. *Philosophy of science for science communication in twenty-two questions*. In *Science Communication*, De Gruyter Mouton, pp. 3-28. <https://doi.org/10.1515/9783110255522-001>
- ◆ Hendriks F. & Kienhues D. (2020), 2. *Science understanding between scientific literacy and trust: contributions from psychological and educational research*. In *Science Communication*, De Gruyter Mouton, pp. 29-50. <https://doi.org/10.1515/9783110255522-002>