

Research Summary

Subject

Subject:

- The Role of Trust in Science Communication

Citation:

- Weingart, P., & Guenther, L. (2016). Science communication and the issue of trust. *Journal of Science Communication*, 15(05), C01.

Other studies referenced in this summary:

- Bensaude-Vincent, B. (2001). A genealogy of the increasing gap between science and the public. *Public Understanding of Science*, 10(1), 99–113.
- Burns, T. W., O'Connor, D. J., & Stocklmayer, S. M. (2003). Science communication: a contemporary definition. *Public Understanding of Science*, 12(2), 183–202.
- Marcinkowski, F., & Kohring, M. (2014). The changing rationale of science communication: a challenge to scientific autonomy. *JCOM*, 13(3), 1–8.

Introduction

Background:

- Science communication has evolved from the simple popularization of scientific knowledge to a competitive and multi-stakeholder industry. The increasing number of actors, scientists, PR experts, journalists, bloggers, and policymakers, complicates the communication landscape and affects public trust in scientific information.

Research question:

- How does the proliferation of actors and the rise of social media impact public trust in science communication?

Hypothesis (if applicable):

- Not explicitly stated, but the study implies that increasing stakeholder involvement and media diversification reduce the credibility of science communication.

Methodology

- The study analyzes historical trends in science communication and examines literature on trust in media and scientific institutions.
- It reviews various actors in science communication, including governments, PR professionals, universities, journalists, and social media influencers.
- It explores public trust through past surveys and studies on credibility perceptions of different sources of scientific information.

Results / Discussion

Findings:

- Science communication has shifted from an exclusive function of scientists and journalists to an arena where PR professionals, policymakers, and even bloggers play significant roles.

- The credibility of science communication depends on both the source (who is communicating) and the medium (how it is communicated).
- Social media, despite being widely used, contributes to the erosion of trust due to the absence of traditional gatekeeping and quality control.
- Scientists who engage in public communication may struggle to balance outreach with professional credibility, as media visibility is sometimes seen as self-promotion.

Conclusions:

- The credibility of science itself is directly linked to the credibility of science communication.
- The increasing role of PR and institutional communication risks conflating scientific information with persuasive messaging, leading to public skepticism.
- Trust in science communication varies depending on the actor; for instance, independent scientists and science journalists are generally more trusted than government agencies or corporate PR.
- The rise of social media platforms has altered science communication, making information more accessible but also less regulated and more susceptible to misinformation.

Limitations:

- The study does not include empirical data from new surveys but relies on existing literature and historical analysis.
- The complexity of measuring trust in science communication across different cultures and contexts is acknowledged but not fully explored.
- The study assumes a general decline in trust but does not quantify it with specific recent polling data.

Commentary by Trustmakers

Trustmakers has worked with thousands of scientists and other STEM experts, and we can attest to the very real concerns outlined under Conclusions above. We have always maintained that it is far better and more realistic to help a scientist to become a better communicator than to try to make a communicator into a scientist.

It has been our experience that the scientist who has notable expertise *and* can make their subject understandable and interesting to non-experts has an amazing power to build trust and support in their science and their organization.

The study refers to “persuasive messaging” as something that erodes trust and credibility. We agree. However, it is our experience that just putting out a lot of information without helping the non-expert audience understand *what it means*, has little impact. Sometimes non-experts have a general academic interest in a subject but most of the time they don’t. They want to know why they should know something and what impact it has or can have on their life. They want to know what it means. There is a big difference between the PR professional that opportunistically uses science to persuade people to do something such as buy your product, and the scientist who helps people to understand the science and what it means for them in their day-to-day lives. The former erodes trust and credibility, whereas the latter builds it.