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A focus on science communication at #ICA22

Reviewed by   **Alice Fleerackers**

Abstract   This year's International Communication Association conference (ICA 2022) featured more than 700 presentations, as well as an inaugural Science of Science Communication pre-conference. With a theme of "Mapping the Field," the pre-conference sparked discussions about topics such as cross-cultural perspectives on COVID-19 and climate change communication, the rejection and skepticism of scientific evidence, theoretical models for trust in science, and the role of artificial intelligence in science communication. Keynote presentations reflected on lessons learned from COVID-19 and climate communication and offered recommendations for the future of the field.

Given its expansive breadth, it is not surprising that many science communication scholars — including myself — are attracted to the International Communication Association (ICA) annual conference. This year's conference, ICA 2022, was hosted in a hybrid format from May 26–30 in Paris, France, and featured more than 700 presentations by scholars from more than 80 countries. A diverse range of contributors was drawn by the conference theme of *One World, One Network?*, which aimed to encourage a "reimagining [of] communication scholarship on globalization and networks"[1] and a simultaneous celebration and critique of the concept of "oneness".

For many science communication scholars, however, the highlight of ICA 2022 may have taken place before the main event: at the inaugural *Science of Science Communication* pre-conference[2] hosted at the beautiful Sorbonne University on

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[1]https://web.archive.org/web/20211030090340/https://www.icahdq.org/page/ICA22CFP,
[2]https://web.archive.org/web/20220513010014/https://www.dgpuk.de/de/precon-paris-2022.html.

May 25, 2022. The hybrid event was organized by Sven Engesser, Sarah Kohler, Niels Mede, Andreas Scheu, Franzisca Weder, in cooperation with Pascal Froissart, Lisa Bolz, and the Environmental Communication Division of ICA. It brought together science communication scholars from around the world for presentations and discussions focused on the theme "Mapping the Field". With about 100 attendees, it offered a more intimate setting than the main conference, allowing scholars to (re)connect with colleagues and engage in in-depth discussions about new research with direct relevance to their field. It facilitated fascinating conversations about topics such as cross-cultural perspectives on COVID-19 and climate change communication [Kedar & Brüggemann, 2022; Van Berkum, 2022], the rejection and skepticism of scientific evidence [Kosyk, Kirsten, Uth & Scheu, 2022; Krämer, 2022; Schug, Bilandzic & Kinnebrock, 2022], and more.

Tying together the many presentations at the preconference were three lively keynotes by Dominique Brossard, Shirley Ho, and Dietram Scheufele. Brossard [2022] argued that science communication scholars should "get out of their comfort zone" if they hope to build equitable and relevant knowledge. She urged attendees to collaborate with other disciplines, engage in meaningful participatory research, and to avoid reductionist answers to the complex questions facing our field. Ho [2022] similarly proposed that science communication scholars should pursue more interdisciplinary research. She also advocated for considering multiple stakeholder perspectives in tackling global communication issues and exploring how new, immersive and interactive technologies such as augmented reality could be used to address long-standing science communication challenges. Finally, Scheufele [2022] presented a virtual keynote outlining failures to communicate COVID-19 research. He critiqued ongoing efforts to address scientific misinformation using uncertain evidence and emphasized the importance of considering how such "prebunking" and "debunking" attempts can actually backfire within our algorithmically-driven media landscape.

How will AI change science communication research and practice?

A stand-out presentation featured an ICA award-winning paper by Angelica Lermann Henestrosa and Joachim Kimmerle [2022] examining how lay people perceive AI-based forms of science communication. Across two experiments, the researchers found that audiences were surprisingly unphased by AI authorship, with participants who read a science essay that had supposedly been written through AI rating both the essay and its author as only slightly less credible than those who read the human-authored essay. While the researchers cautioned that there is more work to be done, the findings suggest that AI technology could have promising potential for our field. This potential was expanded on by Esther Gruessing and colleagues [2022], who presented a theoretical paper exploring ways that AI could be integrated into science communication research and practice. Could AI be used to collect, analyze, and interpret data? Could it evaluate or validate evidence? Could it disseminate research knowledge in a more conversational or personalized way than has traditionally been possible? Together, the two presentations sparked important debates about the implications of AI for science communication, with one audience member asking: *If AI can not only communicate, but also conduct research, then where does that leave us? In an AI-driven world, what value can we — as researchers and practitioners — bring to field?* These provocative questions went unanswered, but if the buzz in the room is any

indication of the collective interest in finding answers, then we can expect to see more research on AI-based science communication soon.

Research perspectives on trust

Trust — and its theoretical underpinnings — was another theme that emerged during the preconference. A Swiss study by Florian Wintterlin and colleagues (now available from *Frontiers in Communication* [Wintterlin et al., 2022]) examined the multiple factors that might contribute to trust in science. The researchers found that a *positivistic* attitude towards science — or believing in its problem-solving abilities — predicted greater levels of trust in both science and scientists, while a critical, or *populist*, view contributed to lower trust. Matthias Kohring and colleagues [2022] proposed an "architecture" model of trust, in which different factors related to trust build upon one another like the bricks of a wall. Many of these "bricks", such as epistemic expectations about science or the expertise and integrity of the source, were familiar, while others, such as "technological risk" perceptions — or uncertainty about the applicability of scientific knowledge — were novel. Finally, Reif and colleagues [2022] presented South African survey data indicating a relationship between levels of trust and frequency of experiences with science communication, with direct forms of communication appearing to be especially important for those who are "suspicious and disengaged" with science. Collectively, these presentations raised questions about how different individuals, groups, and cultures make decisions about who and what to trust — but also about how much trust in science is actually desirable. Not enough trust is clearly problematic, but too much — especially if undeserved — could be dangerous too.

Lessons and challenges

While the *Science of Science Communication* pre-conference was undoubtedly a success, there are also lessons about diversity and promotion to be learned. Presentations predominantly featured perspectives from Germany and the US, and many science communication scholars — including myself — were unaware that the event was taking place until shortly before the main ICA conference started, requiring last-minute changes in travel plans in order to attend. However, the content itself was not only rigorous and relevant, but also extremely rich, offering a varied mix of studies spanning multiple cultural contexts, science topics, and communication formats. It remains to be seen whether the pre-conference will be a repeat event, but some of us who attended certainly hope it will be. The *Science of Science Communication* pre-conference somehow left us both full of new ideas and excited to taste some more — the perfect "appetizer" for the ICA conference to come.

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Author

Alice Fleerackers (she/her) is a doctoral candidate in Simon Fraser University's Interdisciplinary Studies program, where she studies how health science is communicated online. She is also a Researcher at the Scholarly Communications Lab, the New Science Communicators Program Coordinator of Science Borealis, a Director on the Board of the Science Writers and Communicators of Canada, and a member of the Scientific Committee for the Public Communication of Science and Technology Network (PCST).

afleerac@sfu.ca.