



## International Symposium on Public Communication of Science and Technology in Zacatecas, Mexico: between diversity, inclusion and pending questions

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### Reviewed Conference

SIMPOSIO INTERNACIONAL DE COMUNICACIÓN PÚBLICA DE LA CIENCIA Y TECNOLOGÍA Y IX COLOQUIO NACIONAL DE CIENCIA RECREATIVA ZACATECAS, MEXICO, 10–12 APRIL 2024

### Reviewed by

**Margoth Mena-Young**

### Abstract

There are current challenges that affect the Public Communication of Science and Technology that must be thought about collectively and for which there are still no answers. These challenges include changes in media ecosystems and consumer preferences; decline of democratic systems and rise of populism; advance of the planetary crisis; growing social inequalities; economic crises and budget cuts; exacerbated misinformation; and distrust in science and its agents; to mention a few examples. The space proposed by the International Symposium on Public Communication of Science and Technology 2024 and the IX National Colloquium on Scientific Recreation, held in Zacatecas, Mexico, was ideal to share several questions — theoretical and practical — that are a guide to address current challenges in this profession.

### Keywords

Decolonising science communication; Diversity, equity, inclusion and accessibility in science communication; Public understanding of science and technology

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In 2024, the International Symposium on Public Communication of Science and Technology and the IX National Colloquium on Recreational Science were held in the beautiful city of Zacatecas in Mexico. Both events managed to bring together a greater diversity of voices, promote new reflections and knowledge, and show the need to include different social groups in the research, planning, execution, and evaluation of science communication initiatives.

The fields of public communication of science and recreational science may have different color, but similar tones. Finally, both are threads of the same skein. When

woven together, they form in a myriad of contrasts and figures, and that produces a unique result. This is how those of us who participated in the space experienced it: people from different countries, with different practices and responsibilities, with their own languages, disciplines, ages, and genders. All people generously shared what they do, why, how and what they got.

From 10–12 April 2024, those who visited downtown Zacatecas were able to observe 211 participants making the round trip between the Calderon Theater, the Citadel of the Arts, and the Science Museum, in search of one of the 117 presentations offered, the four keynote lectures, four round tables or the laboratory session that showed explanations and live experiments. All these activities brought together attendees from four continents (America, Asia, Europe, Oceania) and 14 countries (Australia, Austria, Belgium, Bolivia, Brazil, Chile, Colombia, Costa Rica, United States, India, Italy, Mexico, Peru, Uruguay).

Imagine that colorful parade of people with light blue credentials around their necks, coming and going, and the joy they showed at each exchange, either for a reunion or for a new bond. It is a community that recognizes itself as more mature, with stronger pillars, but that still seeks to grow and have more impact.

This international event proposed to bring together reflections around six thematic axes: museums and science centers; science journalism; training and professionalization of popularizers; research in public communication of science; inclusion in public communication of science; and recreational science. Several of these axes are traditional in the public communication of science and technology, but recreational science was a novelty in the program. The organization wished to highlight activities based on direct interaction with an audience that is called upon to play an active role in demonstrations, workshops, talks, games or dramatizations, among other resources. This type of outreach also involves a combination of action and reflection that allows newer members to learn from the experienced ones, developing skills in the key tools to bring the workshops to life [García-Guerrero, Lewenstein, Michel Sandoval & Esparza, 2020].

The axis of inclusion requires an additional mention. Science communication must encourage the participation of indigenous peoples, women, migrants, older adults, the LGBTQ+ community, people with disabilities, underrepresented groups, in precarious situations or living in vulnerable areas [Lewenstein, 2024]. To make progress towards this systemic change, following Rasekoala [2023], it is necessary to affirm spaces for reflection and solidarity through innovative, globally more inclusive and action-oriented approaches.

As part of the mechanisms used to promote social inclusion and participation, the symposium delved into co-creation and co-design, their challenges and benefits, both for the institutions or programs that drive them and for individuals or groups that join the processes [Béyer, 2024]. There is a need to learn, listen and link with content and people when bringing science closer to society.

Another key aspect discussed was the decolonization of science. This question led to reflection on the historical relationship of power and knowledge between continents and, also, between production groups. The need to publish science written in the local language was mentioned, which is not undervalued for that

reason [Lewenstein, 2024]. At the same time, the importance of theorizing from the Global South about science communication was argued, from the region's own stories, with its practices, emotions and cultures. This path can ensure the production of new knowledge, located, close and respectful of cultural diversity.

In addition, the symposium addressed relevant topics that affect the practice of science communication. One of them is not to promote citizen polarization in science outreach activities, which is a priority in topics such as: the climate crisis, vaccination, religion, human rights or democracy, to name a few. The recommendation when addressing them is to promote science communication in a progressive manner, where the starting point is reflective self-awareness in the exchange with others, and where the population is listened before proposing interventions or seeking solutions [Metcalf, 2024].

Messages and interactions can deepen the construction of "us versus them". This polarization is fueled by growing disinformation and hate speech, both daily dishes of society. These public messages contribute to the formation of binary worlds through labels, which distance people further and further and prevent dialogue. Eventually, people end up grouping other people into blocks, to diminish them: pro-vaccine/anti-vaccine; cisgender/transgender; male/female; right-wing/left-wing; rich/poor; high culture/average culture; academics/practitioners; public sector/private sector; white/non-white; politicians/voters; and so many more.

Really thinking about diversity and inclusion implies re-knowing the existence, knowledge, beliefs and attitudes of all groups, their characteristics, needs, expectations, issues and situated cultures, so that they work together. A recommendation made at the event was to try to work with small groups, while maintaining a presence on mass platforms [Lewenstein, 2024].

Finally, it is important to highlight the large presence of questions in this event, which implies an interest in seeking answers. It is imperative to collectively look for what to do in the face of challenges in the exercise of public communication of science, because, as several speakers said: "I don't have the answers." And there are major challenges ahead that must be thought of collectively: changes in media ecosystems and in consumer preferences; declines of democratic systems and booms of populism; imminent planetary crisis; increase in social inequalities; economic crises and budget cuts; and distrust in science and its agents; among other examples.

Although this list of challenges may be more extensive, they illustrate well the need to continue reflecting together, within the framework of meetings such as the one held in Zacatecas, which was achieved thanks to the joint efforts of several national and international entities and institutions that created the ideal conditions for exchange, growth and enjoyment.

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## Author

Margoth Mena-Young. Doctor in Communication from the University of Malaga in Spain. She is a university professor at the School of Mass Communication Sciences of the University of Costa Rica (UCR) and a researcher in Public Communication of Science, Technology and Innovation at the Communication Research Center (CICOM-UCR). Since 2022, she has coordinated the “Network for the Evaluation of Public Management Processes in Pandemics and Citizen Participation (Evaprop)” of the Ibero-American Science and Technology Program (CYTED).

  [margoth.mena@ucr.ac.cr](mailto:margoth.mena@ucr.ac.cr)

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