## Introduction

The global pandemic caused by a new coronavirus that began in 2020 has made clear not only how fundamental scientific research and technological advancement is for global society, but also, and perhaps more importantly, how essential it is that these developments (and their consequent uncertainties and limitations) are communicated in a timely, accurate and honest manner to the various audiences. The epidemic that has affected virtually every corner of the planet has led us to make dizzying decisions that require scientific information, in a context in which communication channels and formats are more diverse and accessible than ever, but also more confusing and difficult to judge by the quality of the information they offer. But the challenges and dilemmas that concern these processes are anything but novel for those who are professionally dedicated to Public Communication of Science (CPC), a field of practice and academic research consolidated in various institutions and organizations

around the world. It is the magnitude and scope of the challenge that has put us on alert, but the historical questions of our field and its relationship with training have not changed much: How to build citizenships with a solid scientific culture but critical of the scientific field? What are the best formats. styles and content according to the communication objectives to which we aspire at all times? What type of interlocutors and mediators are most conducive according to the different communication contexts? How to promote a scientific culture in citizens that includes a realistic vision of scientific work, with all its scope and also its risks and limitations? How to link Education with CPC for scientific literacy? Can the philosophy of science teaching generate desirable transformations in Education? To think that these and other fundamental questions of our practical work as communicators can be answered from practice is naive, not to mention that anecdotal experience is always valuable and must be preserved as an element that enriches us collectively. But it is



in scientific research, in systematic inquiry and the search for new knowledge based on previous knowledge, where we can find some clues where to look in search of some clues.

Hence, this current issue is so relevant, dedicated entirely to the analysis and reflection of this professional field that grows every day in its relevance for the construction of more and better scientific knowledge.

Throughout the issue, he and the reader will find various empirical approaches to the study of CPC that contribute to the professional field both in its practical aspect and in its academic perspective.

Yuliannela Boza-Oramas, Elmyz Escribano Hervis and Mercedes Keeling-Álvarez contextualize us in the educational research process in the Cuban school and the socialization of the results. It is a manuscript with clear documentary historical features that document the contemporary Cuban educational reality, how they define it and the need to create public policies that facilitate its development.

Iiménez Taboada and Ojeda Santiago, for their part, undertake the task of addressing a sub-field of the CPC with a long tradition in Mexico and whose relevance often goes unnoticed by inattentive glances: the work of science workshops. The article "Evaluation workshop of science teachers: proposal from education and scientific communication" touches on a fundamental axis and at the same time one of the pending tasks of a large part of the CPC in our country, which is in the evaluation of practices. Although it is a widely discussed aspect on a theoretical level, there is still much to do to implement it on a large scale. The authors make a nodal contribution in this regard, as they present the construction of an evaluation instrument for workshop participants, based both on educational and communicative dimensions, which could serve as a guide to improve the impact of the work carried out by organizations, associations and groups dedicated to this area.

Based on environmental communication, a group of authors from the Universidad Veracruzana (Domínguez González, Cruz Vázquez, Tetla Teplixtle, Martínez Sánchez, Soto Pol and Ayala Benítez), delve into indigenous communities and their agency to propose a systemic scheme to develop effective environmental communication to promote changes in attitudes and values related to the conservation and / or restoration of the environment. The idea, the authors propose, is to start from a theoretical basis to reach an awareness towards the collective construction of solutions to some of the environmental problems that most affect these communities.

A clear example of the relevance of the pandemic to understanding the current communication of science is the article by Navarro Zamora, "The communication of science in the COVID-19 pandemic and its disseminators". Through a mixed empirical approach, the author is able to portray some fundamental features of the work of scientific disseminators in Mexico in the face of the challenge posed by the pandemic. Among other findings, the author highlights the lack of adequate competencies on the part of communicators to face the complexity of the phenomenon to be covered by the media, which is in line with one of the challenges raised above and which is not exclusive to this moment and in this context, but is transversal to practice in all its dimensions.

Literacy in educational research has its understanding in literacy. This has its challenge in the training of teachers in Basic Education, which is why Brenda Mejía Reyes and Ma. De Lourdes García Zárate bring us closer to an empirical research and evidence with data, the need for training among the teachers surveyed in an Institution of Higher Education in San Luis Potosí.

Finally, Rubí Estela Morales Salas, from the University of Guadalajara, makes a theoretical approach to the dissemination of science in the 21st century. She succinctly describes the systematization of knowledge, and its consequent need to disseminate, communicate and disseminate it with the aim of reaching the general public with a view to a social transformation.

Added to this issue is the interview with Ángela Posada-Swafford, an intrepid Colombian-American journalist, novelist and explorer with thirty years of experience in science communication. She has had great excursions to Antarctica, and





currently writes about the crucial role of science diplomacy, as a challenge of the century.

Finally, two reviews are presented, in the first one, Estrella Vázquez Reyes discusses the disinterest in science, and its relationship with the decadent humanity of Carlos Elías. In the second, Juan Carlos Rangel Romero reviews the training of teachers in Educational Inclusion, as a curriculum with limited access possibilities. We hope that you are interested in any topic of the Educational Prospective of the Public Communication of Science of Emerging Trends in Education, and that these contents inspire research that is increasingly diverse and rich in approaches and insights into a topic that is as fascinating as it is complex. How to learn to effectively technoscientific communicate research to society.

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