XX IOSTE International Symposium 2022

Call for proposals

Esperançar in uncertain times: the role of science and technology education in a changing world

Exactly 20 years ago, in 2002, the IOSTE International Symposium was held for the first time in Latin America, and also for the first time in Brazil, themed "Rethinking Science and Technology Education to Meet the Demands of Future Generations in a Changing World". More than 500 educators from all over the world gathered in the city of _Foz do Iguaçu_ to discuss the event's theme and various aspects of Science Education. The world imagined in 2002 as that one of future generations has become the world we are living in today. Twenty years after that imagined world in 2002, the 2022 event's theme mentions, once again, a changing world. Were the changes the IOSTE community faced twenty years ago still the changes we are dealing with today?

The year of 2020 brought a disruption that drastically altered the routine of billions of people around the world. The COVID-19 pandemic has exposed problems that existed before and that have been aggravated in the current circumstances. It has become paramount to talk about contemporaneity and consider the decisive role of the pandemic in recent years in themes such as the profound inequalities (economic, social, gender and race) that plague the world. Adding to it , there are previous and no less urgent discussions about the contradictions of the so-called Anthropocene, and the epistemological and ontological challenges associated with a system in deep crisis. This crisis seems to point to the scenario of changes and urgency in which we live, with the feeling that we are running out of time in relation to climate and social emergencies on the planet. It suggests that the changes and uncertainties that the theme of IOSTE 2022 refers to are of a very different nature from the world's 20 years ago.

As it is a time of emergencies and crises, it also presents itself as a time of struggle. In such a context, we witness the emergence of social movements, an intensification of political and environmental activism, and agendas aimed at equity gained strength in discussions held around the world. In the Andean countries, the _Mapuche_ (_Wenufoye_) and _Whippala_ flags have brought, along with their struggles, a time of hope and resistance to other peoples around the world and peoples who join their struggles in their territory.

Against this backdrop, we present the theme of the symposium: "_Esperançar_ in uncertain times: the role of science and technology education in a changing world." The term _esperançar_ is a neologism in Portuguese, created based on Freire's thought, derived from "_esperança_" (hope) and "_esperar_" (wait). According to Freire, "Hope (_esperança_) [...] does

not consist in crossing one's arms and waiting. As long as I fight, I am moved by hope; and if I fight with hope, then I can wait" (Freire, 2005, p. 92).

It is therefore a verb that translates hope into action - *esperançar*. By proposing this theme, we intend to encourage the IOSTE community to think about possible collective futures, considering that education never occurs in a political vacuum, as Freire teaches us. We want to involve teachers of basic and higher education and the entire community of researchers in science and technology education in debates involving critical and post-critical pedagogies, social movements, decolonial perspectives, as a source of hope and resistance in science education. May this act of *esperançar* for reality through knowledge in science and technology and the ancestral knowledge of all peoples on Earth, serve as a support for us to think and act on the problems that affect the world.

XX IOSTE International Symposium 2022 Organizing Committee

2022 IOSTE strands

Strand 1: Student understanding and learning in STE (Student motivation and interest in STE)

Strand 2: Teaching science and technology in diverse contexts (Informal education of science and technology)

Strand 3: Use of educational technology in STE

Strand 4: Teacher education and professional development in STE

Strand 5: Higher Education in STE

Strand 6: Cultural, Social and Gender Issues in STE

Strand 7: Special and inclusive education in STE

Strand 8: Environmental and Health perspectives in STE

Strand 9: History, sociology and philosophy in STE

Strand 10: Decolonial, Social Justice, Critical and Transformative perspectives in STE

Presentation format

The XX IOSTE XX IOSTE International Symposium will admit three types of paper presentations, for both in-person and virtual modality: Symposium; Poster session and Single oral presentation. For each of them, contributions can be empirical studies or theoretical/ Non-empirical studies. All proposals must be original that have not been published or presented at any other conference.

Symposium: This presentation format enables to jointly illuminate a topic from multiple perspectives, providing a coherent set of projects for discussion. Each symposium will be organized by a chairperson and will contain 3 - 5 presentations concerning a common topic of interest as well as one symposium discussant. The symposium is scheduled for 90-minute sessions, of which the final 30 minutes are to be moderated by the discussant to open up for an in-depth discussion of the projects presented.

The symposium chairperson is in charge of submitting:

a) presentation of the whole symposium: title, short abstract (150 words at maximum) and a synopsis for the whole symposium (500 words at maximum, excluding references)

b) the abstracts and extended summaries of the included individual presentations making up the symposium (see single oral presentations for instruction)

c) names and affiliation of all participants in the symposium, including chairperson and discussant. Symposia that involve scholars from multiple countries are encouraged.

Poster session: Proposals should consist of a short Abstract (150 words at maximum) and a long abstract (500 words at maximum, excluding references) without an extended summary. Please, download the template for the abstract proposal. During 90 minutes, the posters will be exhibited in an open room in the local area of the event. Participants will be able to circulate among the posters and discuss it directly with the authors.

Single oral presentations: Proposals should consist of a short abstract (150 words at maximum) and an extended summary (1500 words at maximum, excluding references). Please, download the template for the single oral presentation proposal. Each participant will present their papers in 15 minutes followed by 5 minutes for discussion with the audience, totalizing 20 minutes each presentation.

Participants in the virtual modality can attend the session in real time connected by ZOOM Meeting. Links for each session will be available before the presentation. For more details,

please, see the document guiding for virtual format participation in the IOSTE 2022 International Symposium.

Please note that at least one author of the accepted proposal must be registered at the conference to present it. All accepted and presented papers will be published in the XX IOSTE International Symposium proceedings.

Review process

All proposals submitted to XX IOSTE International Symposium go through a blinded and peer-reviewed process. Proposals should not contain any information that could identify who authors are or where they work. Authors are required to remove any identifiers in the proposal. For self-citations use "Author, 2021".

The blinded peer review process will follow the rubric and criteria presented in this document. After the reviewing, there are three possible decisions *accepted*, *minor review*, and *not accepted.* Authors are required to submit the final version of their proposals.

Each participant registered for the conference can submit up to two proposals as first author and participate as co-author up to four contributions. At least one of the authors has to be registered in the conference

Important dates:

Submissions: Dec 1st (2021) - Jan 31th (2022)

Acceptance notification: Mar 21th - Mar 31th (2022)

Final version submission: Apr 1th - Apr 15th (2022)

Early bird payment: May 1st (2022)

Registrations: Jul 1st (2022)