STEAM AND THE FUTURE OF EDUCATION

INTERDISCIPLINARY INNOVATION AND THE INTEGRATION OF THE 4 CULTURES DOMAIN

19-20 SEPTEMBER 2022 | PORTO, PORTUGAL

PROGRAMME

DAY 1 | 19 Sept 2022

09.30h – 9.45h Welcome
Claudio Sunkel, *i3S Director, Portugal*
Júlio Borlido Santos, *i3S, Portugal*

9.45 – 10.30 KEYNOTE: STEAM in Higher Education – overview
Chair: Júlio Borlido Santos, i3S, Portugal

Claudia Carter, *Birmingham City University, UK*

10.30 -11.00 Coffee break

11:00 – 12:00 ROUND TABLE: Sharing experiences in Hybrid Setups

Lucas Evers, *Waag, Netherlands* (chair)
José Bessa, *i3S, Portugal*
Marta Vaz Mendes, *i3S, Portugal*
Louise Mackenzie, *Artist and Researcher, Newcastle University, UK*

12.00 – 13.30 Lunch

13.30h – 15.00h **Selected Talks** (10 min each presentation + discussion)
Chair: Maria Manuela Lopes, i3S

An educational approach to computational thinking through arts and creativity
Rocio Garcia-Robles, *Universidad de Sevilla, Spain*

Creating Boxes for Drone Delivery: An Engineering Design Process experience in Initial Teacher Education
Bento Cavadas and Neusa Branco, *Polytechnic Institute of Santarém / School of Education, Portugal; CeiED –Lusófona University, Portugal;*

Full STEAM ahead: reshaping initial teacher training
Pedro Correia Rodrigues, *ESE-PPorto – Escola Superior de Educação, Instituto Politécnico do Porto; inED – Centro de Investigação e Inovação em Educação, Instituto Politécnico do Porto, Portugal;*

Odor mapping and citizen science to foster out-of-the box thinking
Mar Escarrabill, *Science for Change, Spain*

Food and Globalization: Let's make food more sustainable
Elisa Manero Rodrigues, *Agrupamento de Escolas Padre Bartolomeu de Gusmão Lisbon, Portugal*

15.00h – 15.10 short break

15.10h – 16.40h **Selected Talks** (10 min each presentation + discussion)
Chair: Aurora Del Rio, Aalto University

Water body 1. The interface of interspecies communication, ArtSci work.

Andrea Gogová, *Independent artist researcher Bratislava, Slovakia*

Epistemic and educational aspects of liminal projects

Karolina Żyniewicz, *Artes Liberales Faculty, University of Warsaw*

FeLT-Futures of Living Technologies- artistic research with a future in education?

Kristin Bergaust, *Faculty of Technology, Art and Design, OsloMet- Oslo Metropolitan University, Norway*

Sharing Space: Interdisciplinary Approaches Beyond STEM and STEAM

Louise Mackenzie, *Hub for Biotechnology in the Built Environment, Newcastle University, UK*

A Transdisciplinary Education Proposal Based on Integrating 3D Information Production and Visualization Technologies and Sciences

Jorge Ferreira Franco and Rosangella Leote, *Instituto de Estudos Avançados da Universidade de São Paulo, Brasil; Instituto de Artes, Universidade Estadual Júlio de Mesquita Filho, Brasil; Escola de Ensino Fundamental Ernani Silva Bruno – Secretaria Municipal de Educação – Prefeitura Municipal de São Paulo, Brasil*

16.40h – 17.00 coffee break

HYBRID EXHIBITION – Solitude Fictions
Paulo Bernardino Bastos (i3s entrance hall)

DAY 2 | 20 Sept 2022

9.30h – 11.00h **Selected Talks** (10 min each presentation + discussion)
Chair: Victoria Kang (Aalto University)

STEAM for Service-Learning
Rocio Garcia-Robles, *University of Seville, Spain*

STEAM Skills Mountain Knowledge Campus – Mountain Alliance for Knowledge and Co-Creation
Carlos Casimiro Costa, *Instituto Politécnico de Bragança, Portugal*

Engineering curricula: what challenges? The perspectives of multiple stakeholders
Cláudia Figueiredo, *Departament of Mechanical Engineer of University of Aveiro, Aveiro, Portugal; Centre for Mechanical Technology and Automation Aveiro, Portugal*

On Biolaboratory – multidisciplinary experimentation project: an open biolab prototype
Pedro Dias Ramos & Filipe Marques, *ICBAS – Instituto de Ciências Biomédicas Abel Salazar, Universidade do Porto, Portugal; i3S – Instituto de Investigação e Inovação em Saúde*

STEAM approach: experience report
Carla Ferreira, *Departament of Mechanical Engineer of University of Aveiro, Aveiro, Portugal; Centre for Mechanical Technology and Automation Aveiro, Portugal*

11.00h – 11.30 coffee break

11.30h – 12.00h **Lessons learned and best practices**

Matej Mertik, *Alma Mater Europaea, Slovenia*

12.00h – 13.30h **Selected Talks** (10 min each presentation + discussion)
Chair: Eva Tordera Nuño, Aalto University

The GIIP's research: investigation, education and fun
Rosangella Leote, *Universidade Estadual Paulista Júlio de Mesquita Filho, São Paulo, Brazil*

Local X Change
Sean Derry & Sharon Massey, *Indiana University of Pennsylvania, Indiana, Pennsylvania, USA*

Transdisciplinary Strategies for Designing Future-Makers Through Steam and Beyond
Alexis Story Crawshaw, *CICM-EA 1572, Université Paris 8*

MARes: academic research fluidity in Hybrid Arts
Dalila Honorato, *Interactive Arts Laboratory, Department of Audio & Visual Arts, Ionian university, Corfu, Greece*

Urban vs Rural Art Practices by Cultivamos Cultura
Marta de Menezes, *Cultivamos Cultura, São Luís – Odemira, Portugal & Ectopia Experimental Art Laboratory, Lisbon, Portugal*

13.30 – 14.30 Lunch

14.30 – 15.00 Biofiligree: from Design, through Engineering to Medicine

Chair: José Luis Simão, ESAD

Olga Noronha, *ESAD-Idea*

15.00 – 16.30 ROUND TABLE: STEAM and the future of education

Laura Beloff, *Aalto University, Finland (chair)*
Alexandre Quintanilha, *Committee for Education and Science, Portuguese Parliament, Portugal*
Fátima Vieira, *Vice-Rector of Universidade do Porto, Portugal*

Henrique Quintino, *Project Manager in Erasmus+ Nacional Agency, Higher Education Team, Portugal*

16.30 – 17.00 coffee break

17.00 – 18.00 CONVERSATION ABOUT: The Future of Working Citizens

Polona Tratnik, *Alma Mater Europaea, Slovenia (chair)*

SPECIAL GUEST: Rona van der Zander