

Cindy Kohtala, co-moderator, Fatemeh Moradi, co-moderator, Ylva Fernaeus, Annamari Manninen, Sara Rylander

This panel will explore how we, as ASAD educators, researchers and practitioners, use digital fabrication as a means to understand potential pathways for sustainability transformations.

Panelist names and affiliations

Cindy Kohtala, Umeå University, Umeå Institute of Design, Sweden – co-moderator. Contact person cindy.kohtala@umu.se Fatemeh Moradi, Umeå University, department of Informatics – co-moderator

Ylva Fernaeus, KTH, Media Technology and Interaction Design, Sweden

Annamari Manninen, University of Lapland, Faculty of Art and Design, Finland

Sara Rylander, Umeå University, department of Creative Studies.

Title of panel discussion

Digital Fabrication and Sustainability: Beyond the Borders of Art, Design and Craft

Panel abstract

The objective of the panel is to offer perspectives on digital fabrication as technologies embedded in practices, processes and communities, and how they are experienced in our work in art, design, craft and sloyd education, art education, informatics, and design research. Digital fabrication technologies such as CNC routers, 3D printers and laser cutters, and hacker-like prototyping with electronics, are often seen as techno-centric, exclusive, and negatively impacting material cultures and craft skills. Others see maker culture as offering positive alternatives to consumerism and as democratising design. We see there are more nuanced ways to understand digital fabrication as a medium for production and process – as a way to think through crucial sustainability issues in the Arctic. By pushing the boundaries of traditional art and craft forms, and embracing digital fabrication tools, artists/makers/craftspeople contribute to the discourse on sustainability and challenge existing power structures. Moreover, experimenting with digital-physical making transcends borders, moving in between embodied and tactile experiences with materials to digital bits and back again, implicating new ways we understand creativity, design, materiality, digitalisation, and participation.

The panelists come from several art and design fields from across the ASAD network. Each panelist will present examples of their work or key questions they study regarding digital fabrication. The moderators pose provocative and critical questions related to technology in society, citizen empowerment, and the role of materiality in understanding sustainability issues.

Key questions to explore include: How is digital fabrication changing our work as practitioners, educators and researchers? What potentials are there for sustainability transformation – with digital fabrication as our medium of production and process? If we aim for sustainable impact through the lens of digital innovation, what hinders us from

achieving this ambition? What is not discussed as much as it could be or should be, regarding digital fabrication?