

## Note from the editors

Welcome to the *Tinkering Together 2022: Proceedings of an Early Childhood Ideas Festival* funded by the National Science Foundation (NSF) and brought to you by the Tinkering Studio at the Exploratorium, a museum of science, art, and human perception in San Francisco, California.

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The design of *Tinkering Together* emerged in response to the disruption of the COVID-19 pandemic. The original intent was to offer a traditional in-person event at the Exploratorium. However, the pandemic propelled us to pivot and reimagine a novel digital approach that places equity at its conceptual foundation. The proceedings of the event aim to amplify the many voices in the early learning community involved in the online festival

*Tinkering Together* is the result of collaboration among many dedicated people. First and foremost, our thanks to all the educators who shared their work in the podcasts, videos, and written material. The Tinkering Together advisors have been most gracious and instructive in supporting the redesign of the event. Lastly, thanks to all of you for being part of the *Tinkering Together* community. We hope we can continue to advance the conversation around early learning, making, and STEAM in ways that authentically benefit learning for all educators, families, and children.

On behalf of the *Tinkering Together* team,  
Claudia Caro and Mike Petrich



## About the Event

The Tinkering Studio at the Exploratorium organized *Tinkering Together*, a conference bringing together stakeholders exploring applications of making and tinkering to support STEAM learning in informal early childhood environments.

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*Tinkering Together* was designed to broaden participation in informal STEAM learning by furthering exploration of tinkering in the early learning and care community. The Tinkering Studio collaborated with early childhood educators to develop programming with practitioners for practitioners—the outcome is a multimedia online festival that serves as an introduction to tinkering through the perspective of real-world individuals. These early learning educators act as STEAM ambassadors to the field and the general public by illustrating how the tinkering practice is relatable and within reach.

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*Tinkering Together* reimagines the typical conference program by offering on-demand content in the form of podcast and video series, recordings of a live fireside chat and interactive workshops, and compiled resources. Each of these content strands is described in detail in these proceedings.



## **Tinkering Together Proceedings**

Proceedings typically document what happened during an in-person event. Because this event was experimental in nature, the proceedings outlined here include both the end product as well as the process and decision-making of our design. As such, this document has the following key components:

### **The Power of Tinkering**

Tinkering Together 2022: Proceedings of an Early Childhood Ideas Festival begin by defining the tinkering approach and explain why it is a personally-meaningful, play-based approach that aligns with the developmental needs of early learners.

### **COVID19 and Early Learning**

Discussion of the impacts of COVID-19 on the early learning and care community as a way of acknowledging the vulnerability of the field and the impact for everyday children, families, and educators as well as the design of the event.

### **Structure for Tinkering Together**

Explanation of the structure of the program and how these content strands work to activate and broaden participation in informal science through a variety of entry points.

### **Program Detail for Tinkering Together**

In-depth summary of the *Tinkering Together* festival programming.

### **Designing for Equitable Collaboration**

Design process of the *Tinkering Together* website prototype to illustrate how online spaces developed around ideas of justice may be valuable in building meaningful civic online hubs that promote and build confidence in informal science learning.

**Many obstacles exist to building collaborative, meaningful learning opportunities for adults working in early education and care.**

*Tinkering Together* represents an experiment in collaboration, a fresh approach to engaging adult learners with asset-based, representative multimedia available on demand. *Tinkering Together* was designed to meet adult learners where they are, in terms of time and place and in terms of knowledge. The intent is to welcome people to an ongoing collaborative movement that brings STEAM-based playful learning to young children.

