MARIANA TAMASHIRO

Designer, Educator, and Researcher

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RESEARCH EXPERIENCE

AARHUS UNIVERSITY — **Aarhus, Denmark**
Research Assistant in the Research Center for Computational Thinking and Design — **2020-2023**

- Designed and conducted design-based, interventionist activities in public schools in Aarhus (7th-9th grade).
- Conducted a research-to-practice process to create sharable teaching materials regarding technology education.

UNIVERSITY OF COLORADO BOULDER — **Boulder, CO, USA**
Research Assistant in the Creative Communities Research Group — **2018-2020**

- Designed activities and conducted research focused on historically marginalized families in computing spaces
- Led a group of undergraduate students on a study about making learning visible in constructionist learning experiences

MASSACHUSETTS INSTITUTE OF TECHNOLOGY - MIT MEDIA LAB — **Cambridge, MA, USA**
Visiting Student at the Lifelong Kindergarten Research Group — **2017**

- Designed workshops with educators and learning experiences for 8-10-year-olds to investigate design affordances of low-cost construction kits to support making and tinkering.

INDUSTRY EXPERIENCE

CREATIVE LEARNING COMPANY — **Boston, MA, USA and Sao Paulo, Brazil**
Curriculum and Product Designer — **2017-2018**

- Designed creative learning curricula from kindergarten to 4th grade.
- Designed low-cost construction kits to support making and tinkering projects.

NAVE À VELA - EDUCATIONAL CONSULTING — **Sao Paulo, Brazil**
Curriculum Designer & Extracurricular Teacher — **2015-2016**

- Designed maker and technology curricula for 5th - 9th grades.
- Facilitated and taught maker and technology courses in 3 private schools.
- Designed and facilitated teacher training courses focused on maker education.
- Managed staff, stock of digital fabrication materials, and outreach activities in a school's makerspace

EDUCATION

AARHUS UNIVERSITY — **Aarhus, Denmark**
Ph.D. in Digital Design and Information Studies — **2020-2023**

UNIVERSITY OF COLORADO BOULDER — **Boulder, CO, USA**
Masters in Creative Technologies and Design - College of Engineering and Applied Science — **2018-2020**

- Awards: Recipient of a full master's scholarship granted by the ATLAS Institute

UNIVERSITY OF SAO PAULO — **Sao Paulo, Brazil**
Bachelor in Design (generalist education: product, graphic, and service design) — **2012-2017**

- Awards: Recipient of the Innovation Scholarship to be a visiting student at MIT
- Scholarship to join Stanford's SUGAR Network
- Winner of Mathematics Department's Music Hackathon (2016)

ADDITIONAL INFORMATION

- Technical Skills:
    - Qualitative Research: MAXQDA, NVIVO
    - Design & Video: Adobe Suite (Illustrator, InDesign, Premiere, Photoshop)
    - Digital Fabrication and Prototyping: Lasercutting, 3D printing, CNC milling, Arduino, Processing
    - Educational Technologies: Scratch, micro:bit, Chibitronics

SELECTED PUBLICATIONS

[1] Marie-Monique Schaper, Rachel Charlotte Smith, **Mariana Aki Tamashiro**, Maarten Van Mechelen, Mille Skovhus Lunding, Karl-Emil Kjær Bilstrup, Magnus Høholt Kaspersen, Kasper Løvborg Jensen, Marianne Graves Petersen, and Ole Sejer Iversen. 2022. *Principles for Teenagers' Learning About Emerging Technologies and Their Societal Impact: Machine Learning and Augmented Reality in K-12 Education.* Available at SSRN 4013380 (2022).

[2] Ricarose Roque and **Mariana Aki Tamashiro**. 2022. *Making Learning Visible in Constructionist Learning Contexts.* In Interaction Design and Children. 69–81. **(Best Pictorial)**

[3] Maarten Van Mechelen, Rachel Charlotte Smith, Marie-Monique Schaper, **Mariana Aki Tamashiro**, Karl-Emil Kjær Bilstrup, Mille Skovhus Lunding, Marianne Graves Petersen, and Ole Sejer Iversen. 2022. *Emerging technologies in K–12 education: A future HCI research agenda.* ACM Transactions on Computer-Human Interaction (2022).

[4] Karl-Emil Kjær Bilstrup, Magnus Høholt Kaspersen, Mille Skovhus Lunding, Marie-Monique Schaper, Maarten Van Mechelen, **Mariana Aki Tamashiro**, Rachel Charlotte Smith, Ole Sejer Iversen, and Marianne Graves Petersen. 2022. *Supporting critical data literacy in K-9 education: three principles for enriching pupils' relationship to data.* In Interaction Design and Children. 225–236.

[5] Marie-Monique Schaper, Rachel Charlotte Smith, **Mariana Aki Tamashiro**, Maarten Van Mechelen, Mille Skovhus Lunding, Karl-Emil Kjæer Bilstrup, Magnus Høholt Kaspersen, Kasper Løvborg Jensen, Marianne Graves Petersen, and Ole Sejer Iversen. 2022. *Computational empowerment in practice: Scaffolding teenagers' learning about emerging technologies and their ethical and societal impact.* International Journal of Child-Computer Interaction (2022), 100537.

[6] Ricarose Roque, **Mariana Aki Tamashiro**, Kathryn Mcconnell, and Julisa Granados. 2021. *Opportunities and limitations of construction kits in culturally responsive computing contexts: lessons from ScratchJr and family creative learning*. In Interaction Design and Children. 246–256. **(Honorable Mention for Best Paper)**

[7] **Mariana Aki Tamashiro**, Maarten Van Mechelen, Marie-Monique Schaper, and Ole Sejer Iversen. 2021. *Introducing teenagers to machine learning through design fiction: an exploratory case study.* In Interaction Design and Children. 471–475.

[8] **Mariana Aki Tamashiro**. 2021. *How do we teach Emerging Technologies in K-9 Education? Using design fiction and constructionist approaches to support the understanding of emerging technologies' societal implications in formal K-9 education*. In Interaction Design and Children. 637–640.

[9] Junnan Yu, Clement Zheng, **Mariana Aki Tamashiro,** Christopher Gonzalez-Millan, and Ricarose Roque. 2020. *CodeAttach: engaging children in computational thinking through physical play activities.* In Proceedings of the fourteenth international conference on tangible, embedded, and embodied interaction. 453–459.

[10] **Mariana Aki Tamashiro**, Leo Burd, and Ricarose Roque. 2019. *Creative Learning Kits for Physical Microworlds: Supporting the making of meaningful projects using low-cost materials*. In Proceedings of the 18th ACM International Conference on Interaction Design and Children. 514–519.

SELECTED PRESENTATIONS, PANELS, AND WORKSHOPS

[1] **Mariana Aki Tamashiro** (2024). Designing for Low Floors and High Ceilings: Scaffolding the Learning of Emerging Technologies. Invited speaker at Google (User Experience Design Team), (virtual).

[2] **Mariana Aki Tamashiro** (2024). In Their (Small) Shoes: A Journey Into Child-Computer Interaction Design. Workshop at DeVinci Engineering School, Paris, France.

[3] **Mariana Aki Tamashiro** and Ricarose Roque (2022). Making Learning Visible in Constructionist Contexts. Paper presentation at the International Conference on Interaction Design and Children 2022. Braga, Portugal.

[4] **Mariana Aki Tamashiro** and Liam Nielsen (2022). Programming Motion Graphics in Scratch for Beginners. Frontløberne – cultural association. Aarhus, Denmark

[5] **Mariana Aki Tamashiro**, Celeste Moreno, Andrea DeVore (2021). Bring storybooks to life: creating interactions with playful digital tools. Workshop at PLAYFest 2021. University of St. Thomas, MN, USA (virtual).

[6] **Mariana Aki Tamashiro** and Saskia Leggett (2021). Cultivating Creative Communities. Talk at 4th Nirun Şahingiray International Education Forum. Turkey (virtual).

[7] Ryan Jenkins and **Mariana Aki Tamashiro** (2021). Cranky Contraptions - Tinkering with Movement. Workshop at Playing Together at a Distance Bootcamp. Interacting Minds Centre, Aarhus University. Aarhus, Denmark (virtual).

[8] Ryan Jenkins, Cabaret Mechanical Theatre, Celeste Moreno, and **Mariana Aki Tamashiro** (2020-2021). Global Automata Tinkering. Workshop Series (virtual).

UNIVERSITY TEACHING EXPERIENCE

[1] Supervising undergraduate students in the "User-driven Design" (2023). Digital Design and Information Studies, Aarhus University, Denmark.

[2] Instructor, masters course "Child-Computer Interaction" (2022). Co-instructors: Marie-Monique Schaper, Maarten Van Mechelen, Ole Iversen, Eva Eriksson. Informations Studies, Aarhus University, Denmark.

[3] Invited speaker and instructor, masters course "CTD Creative Technology Seminar" (2019). Co-instructor: Celeste Moreno and Joel Swanson. ATLAS Institute, University of Colorado Boulder, CO, USA.

[4] Invited speaker, undergraduate course "Design Methods" (2019). Instructor: Clement Zhang. ATLAS Institute, University of Colorado Boulder, CO, USA.

[5] Teaching Assistant, summer school course "Tiny Machines" (2019). Instructors: Leah Buechley & HyunJoo Oh. ATLAS Institute, University of Colorado Boulder, CO, USA.