



November Theme of the Month Webinar Panel

Critical STEM + C Futures: Re-Imagining Equity Paths for the Next Generation of Maker Teaching and Learning
November 28th at 1:30PM EST



Justice Walker (moderator), Yasmin Kafai, Christopher Wright, Anja Scholze, & Eli Tucker-Raymond

Webinar Chat

Kim Descoteaux : This webinar is brought to you by the STEM for All Multiplex - <https://multiplex.videohall.com/> Funded by NSF #1922641 - Opinions expressed are those of the contributors and not necessarily those of the National Science Foundation.

Yasmin Kafai : <https://www.exploringcs.org/e-textiles>

Joni Falk : Please feel free to post comments, questions, in the chat!

Pilar G : Dr. Kafai, have you known if the students that participated in your intervention (Hi-Low Tech) pursued STEM fields?

Colin H : inventor of tools for hip hop -- Grandmaster Flash: that's such a powerful renaming.

Regina M : Love this!

Yasmin Kafai : Hi Pilar, I posted the link to the e-textile curriculum and resource guides: <https://www.exploringcs.org/e-textiles>

Pilar G : Thank you Dr. Kafai

Yasmin Kafai : We're in LAUSD but now actually in several states: MA, AL, IL, CA and WI

Yasmin Kafai : Here's a great workshop report on learn and design with bio: <https://otelhan.wixsite.com/learn-design-bio>

Yasmin Kafai : Check out Anja's space: <https://www.thetech.org/biodesignstudio>

Anja Scholze : <https://www.thetech.org/behind-the-btl>

Colin H : Question: I'd love to hear some of the ethical/caring practices you all (panelists) have engaged with youth in the context of making that pushed your thinking.

Ada R : In the context of home sciences, especially regarding to fermentation, it's been surprising to me that how much technology people have done in the past, that are new again to us now.

Ada R : Refreshing the knowledge also helps to validate cultures that have been doing such things in a new light

Anik K : we talk about Maker being STEAM in action

Holly S : I really like the idea of bio-making. I have always thought of maker spaces as places where things were non living (cardboard, metal, plastic, etc). But this is a great way to (re)connect people with the natural world.

Eli Tucker-Raymond : Yes Ada, this is what our network is trying to do, highlight community making practices...our network is <https://craft-network.org/>

Michelle S : Essential point, Eli. In consultation with Anita Tenasco, Director of Education for the Algonquin Anishinabe community, Kitigan Zibi, in the design and development of a new lab in our Faculty of Education, she has repeatedly emphasized the importance of the cultural practices of making being about connection, community and working in a circle — which is an essential practice. She has described the importance of having big open floor space where our First Nations, Métis and Inuit students will be able to connect with the ground, the earth, the land while they are making — just wanted to add these Indigenous teachings on the importance of connection through making to the conversation.

Anik K : we talk about Maker being STEAM in action ie STEM / STEAM focusing on the academic disciplines

Regina M : How this making enables students to bring in their funds of knowledge into the space is necessary...

Judy Bowling : Where does Design Thinking fit into the work you do? I've always looked at Design Thinking as being the engine of making.

Eli Tucker-Raymond : Michelle, those are crucial teachings. Start with ethical commitments and go from there.

Joni Falk : Are there teachers on this call who have been experimented with Making in their classroom?

Ada R : Another up and coming hub is the MIT Morningside Academy for design:
<https://design.mit.edu/>

Pilar G : Could exposing pre-service teachers to this Maker 2 would help them have a classroom that has Making within?

Regina M : When I taught middle school, I conducted a study with my 7th grade science students oriented around problem-based design thinking. If interested, here's the link:
<https://ejrsme.icrsme.com/article/view/19925>

Ada R : MIT MAD: they frame design as interdisciplinary, keeping in mind society, cultures, and authentic human connections when developing STEM solutions, sometimes at scale

Anik K : Christopher do you have a website / materials to share regarding your STEM & Hiplo programming experience?

Michelle S : Joni: Not a classroom teacher anymore, but have been privileged to work with elementary teachers who have co-designed and implemented maker oriented activities. This work was happening in a Francophone linguistic minority context:
<https://doi.org/10.1080/1475939X.2021.1997794>

Joni Falk : Thanks Michelle. I'll look up this link!

Eli Tucker-Raymond : Anik, this is a paper we wrote. Don't know if that helps:
https://www.researchgate.net/profile/Dionne-Champion/publication/346427868_Designing_for_learning_computational_STEM_and_arts_integration_in_culturally_sustaining_learning_ecologies/links/612cda4ec69a4e4879683001/Designing_for_learning_computational_STEM_and_arts_integration_in_culturally_sustaining_learning_ecologies.pdf

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Ada R : 100% agreed, @Justice!

Joni Falk : Eli, I agree that rethinking the culture of schools has to happen in tandem with the introduction of teaching and learning with making.

Holly S : Exploration into the unknown needs to become a normalized practice in classrooms.

Ada R : My work is in creative play! Looking forward to learn and share in breakout group conversations.

Regina M : As teacher educators, (for both pre and in-service), we have to figure out how to navigate through the structures of K-12 to support teachers. For example, consider practical ways of implementing making in the classroom time, space, and standards. I think many teachers want to engage their students in this work, but the fear of losing their job, backlash from admin, parents, etc. are very real concerns. While I'd LOVE to change K-12 structure and format, we have to be innovative as equity-MAKERS to help classroom teachers and get admin and school leaders on board. How can we use 15 minutes each week instead of a full class hour, for example...

Pilar G : Regina, but as I think of pre-service teachers, I feel they need to be exposed to this movement to be as motivated as we are.

Regina M : @Pilar--100%! I use making and prob-based design thinking with my Preservice teachers every semester. So I actually aim at helping both ends: pre-service and in-service teachers--both are needed.

Michelle S : Thank you for this — so sorry I have to dash to pick up a kiddo from school. Have appreciated these insights so very much. Merci! Thank you, all!

Pilar G : I need to attend another meeting. Thank you all!

Kathryn H : The link to the playlist will be included in the newsletter coming out tomorrow (with the recording of this webinar too)

Regina M : I have a 2:30 meeting, but great conversation. :)

Lynda G : Thank you so much for this webinar. Value these insights.

roy P : Dear Colleagues, Chris, Justice ,Yasmin, Eli and Anja, Many thanks for inspiring insights on equity contributions in making design and research!

Ani D : Thanks you so. Much

Holly S : Thank you for this!

Yanil D : Thank you- very insightful and inspirational!

Colin H : thank you to the panelists!

Monica C : Thank you panelists for sharing your work & the things you are passionate about!

roy P : Departments of parks and recreation need to be partners in the game

Kim Descoteaux : Don't forget to come view the videos in the playlist and continue the conversation in the online discussion - https://multiplex.videohall.com/month_themes/23

Ada R : One strategy from our Rural & Tribal project was to remix STEM activities with easy-to-find household materials

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Colin H : thank you all!

Judy Bowling : Thank you! This was a great panel discussion. It was very reflective and I got a lot of new ideas/resources.

Yasmin Kafai : Great session — thanks for coming!

Anik K : Thank you so much!

Justice Walker : Thanks for TERC, panelist and attendees!

Remy P : Thank you!

Ethan D : Thanks all!