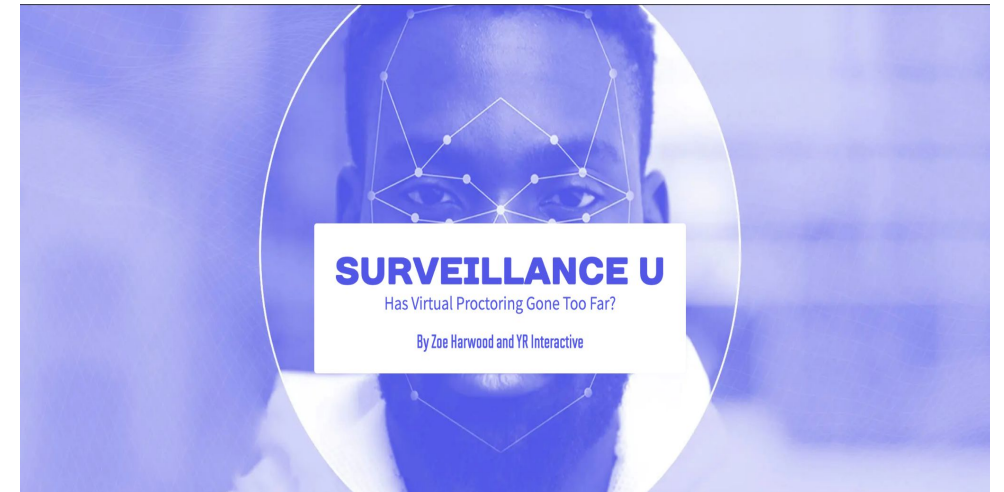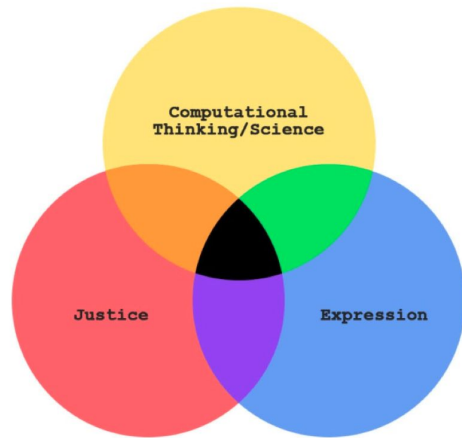# Innovative Approaches to Informal Education in A.I.

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YR MEDIA: A national network of journalists, designers, developers and artists ages 14-24 who create media and technology that address key social issues — including, since 2019, A.I. through an ethics and equity lens. Participants are primarily youth of color and those contending with economic and other barriers to full participation in STEM.

Computational Thinking/Science

Justice

Expression

ERASE YOUR FACE

SURVEILLANCE U
Has Virtual Proctoring Gone Too Far?
By Zoe Harwood and YR Interactive

RESEARCH QUESTIONS:
1 What can we learn about young people's understandings of A.I. when they produce media with and about it?
2 What design features shape an ethics-centered pedagogy that promotes STEM engagement via A.I.?

PROJECT 1: Erase Your Face is a playful take on the serious harm of biased facial recognition software. Working in partnership with Stanford's d.school, YR creators developed a "try-it-yourself" doodle tool that invites users to experiment with what it takes to dodge detection and then test their attempts against a real facial recognition system. This interactive features an interview with Dr. Simone Browne, author of Dark Matters: On the Surveillance of Blackness.

PROJECT 2: Use of virtual proctoring has seen massive growth across campuses. YR Media's reporting with students across the country and analysis of 79 petitions opposing virtual proctoring revealed that students' concerns fell into three categories: the apps risk **1)** jeopardizing their privacy, **2)** driving inequality, and **3)** creating harmful mental health effects in a period when students were already struggling to manage remote school during a global pandemic.

KEY TAKEAWAYS: Using **ethnographic methods** and a **bi-annual survey**, we have found: by creating digital media with and about A.I., young people deepened their understanding of A.I. while educating others about the A.I. running on tools hundreds of millions of users engage with everyday. We offer "**Critical Computational Expression**" as a framework for designing informal learning environments that are community-connected, culturally-relevant, enabled but never defined by technology, tethered to truth, powered by creative expression, and oriented towards justice. These contexts support young people who are under/mis/disrepresented in STEM as creators of dynamic content and drivers of vital public conversations.