

From Making to Moving: Co-Design Methods with Youth from Workshops on Biowearables and Virtual Reality

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1 WHY DO YOU WANT TO PARTICIPATE?

We are three researchers from the Tangible Embodied Child-Computer Interaction (TECI) Lab at Simon Fraser University located in Canada: Alissa Antle (Professor), Alexandra Kitson (Postdoc Fellow), and Sadhbh Kenny (MSc Student). We conduct design-oriented research to design, build, and evaluate technology that improves, augments, and supports children’s cognitive and emotional development.

We would like the opportunity to discuss potential uses of participatory methods and processes, particularly co-design, to consider ethical issues surrounding technologies for children and youth. We would also like to share our relevant past and current research.

2 WHAT CAN YOU CONTRIBUTE?

First, we would share our research exploring the ethical issues of biowearables on children’s identity formation [2]. We used a critical making workshop methodology for supporting reflection and eliciting ethical discourse with children during the process of making biowearables [3]. Our approach was grounded in Nucci’s work on the moral development [7] and Ryan and Deci’s self-determination theory [9], and informed by practices from value-sensitive design technical investigations [5] and critical making [8], all adapted for use with children.

Second, we would share our current project using embodied co-design methods with youth for the design of virtual reality (VR) applications to support emotion regulation. While this research is not directly exploring ethical issues, we think embodied co-design methods, such as full-body interaction (FUBI) [10] and embodied sketching [6], might help children and youth consider the design of experiential technologies like virtual reality. The reason is that embodied co-design lends itself well to designing for VR because VR primarily uses body-based interactions that cannot be captured well by traditional forms of co-design, e.g., sketching, prototyping, and brainstorming [4]. Moreover, embodied

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53 methods of design could be helpful for children and youth who construct knowledge and meaning by exploring the
54 world through their bodies [1]
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56 3 WHAT DO YOU WANT TO GET OUT OF THE WORKSHOP? 57

58 In this workshop, we hope to share our proposed work, learn from others about best practices in participatory design
59 with youth, and discuss the potential of co-design to explore the ethical issues related to emerging technologies. We
60 also welcome potential research collaborations around this topic.
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