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# Rethinking technology design for and with children who have severe speech & physical disabilities

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Communication in its broadest sense enables people and things to ‘connect’. AAC technologies provide one perspective for supporting communication, predominantly focusing on language that is represented orthographically or symbolically. Unfortunately, these technologies are largely under-utilised by children as demonstrated by their ongoing abandonment. This prompts reflection on a number of questions including: (i) what does communication (‘connection’) look like when it involves children with severe physical disabilities, (ii.) what systems of resources come into play in communication involving these children, and (iii) are our assumptions that communication assistive technologies should focus on connection through the modes of words and speech accurate?

In a move towards improving the usability of technologies that are intended for children, the child computer interaction (CCI) community is increasingly developing and evaluating ways of involving children in the design process. Participatory design (PD), often undertaken in CCI, is underpinned by a set of core principles; empathy, mutual learning and empowerment. This approach holds exciting potential for understanding what children themselves value in communication.

The goal of this work is to rethink technology design for advancing communication that is socially situated and embodied. An inductive design-oriented research approach is taken to investigate peer interaction. The approach is guided by a social model of disability for thinking about technology and design processes that examine barriers within the wider context. In the first instance, fieldwork has involved five children aged 6-9 years who engage in aided communication. This presentation will offer a theoretical contribution for understanding communication that is socially constructed and embodied. It will also invite the Communication Matters community to engage in the next stage of this project, fostering a critical dialogue about the design of assistive technologies for advancing communication.