Evaluating Experiences of Autistic Children with Technologies in Co-Design

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Many technologies available to autistic children functionally focus on the medical characteristics of a diagnosis of autism. These technologies are then also evaluated according to the extrinsic motivations driving their design. Recently, though, more and more Participatory Design (PD) projects create technologies together with autistic children, albeit still mostly remaining in a medicalised view of autism. Hence, there is a lack of research into participatory design with autistic children aiming to develop technologies that reflect their intrinsic interests, holistic well-being and considers the embodied experiences they have with these technologies.

Constructive notions of experience in the research field of Human-Computer Interaction (HCI) rely on empathy as a core component of experience-driven evaluations. However, autistic individuals perceive the world differently and, hence, make sense of it differently than non-autistic researchers. This divide becomes especially pronounced when working with children, whose life worlds vastly differ from those of adult researchers. While empathy is a core requirement for the evaluation of the experience of autistic children, my work shows that researchers cannot rely solely on their empathy. Hence, evaluating these experiences requires a structured process capturing multiple views. My work makes three main contributions:

1. a concept for evaluating experiences of autistic children with technologies
2. a participatory evaluation method tailored specifically to autistic children
3. an in-depth discussion on the micro-ethics of conducting participatory research with autistic children

I give a critical overview of current technologies available for autistic children and the ways of evaluating them. The concept of ‘Critical Experience’ offers a novel way for the evaluation of the experiences of autistic children with technologies that are designed for their holistic well-being and enjoyment. The case studies then show how autistic children experience these technologies and which implications that
brings for PD processes involving autistic children. I make a methodological contribution by showing how PEACE (Participatory Evaluation with Autistic ChildrEn) enables researchers to evaluate these technologies together with autistic children. There, the case studies present unique direct insights into what matters to the children. In my discussion I further offer perspectives on the dynamics of making micro-ethical judgements when working with marginalised children more generally.

Not only researchers working with users who have very different life worlds, but also a community of developers and designers of assistive technologies in general are the audience for this work. This thesis argues the case for a considerate and critically informed approach when working with marginalised user groups and shows how this can be accomplished successfully.