

# Workshop on Long-Term Child-Robot Interaction

## Organizers:

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## Abstract

Because of their potential to assist and entertain children, social robots are increasingly being developed and studied as companions for children in education, therapy, entertainment, healthcare, and more. In most of these domains, a single interaction between a robot and a child is insufficient to achieve the desired goal (e.g., to increase learning gains or promote behavior change). Therefore, researchers in the field are faced with the challenge of developing robust and autonomous robots capable of interacting with children over weeks, months, or even years. The challenge of long-term interaction raises new research problems in the design principles of robot platforms and interaction scenarios, evaluation methods, and algorithmic approaches. These problems need to be addressed across the spectrum of interaction applications and the users - children, caregivers, therapists, etc. Researchers must also address data collection and analysis methods, as there are already problems resulting from commercialized products using the cloud to collect children's data, raising concerns of threatening their privacy.

These long-term, repeated encounters mean research moves out of the lab and into the field, conducting studies in schools, hospitals, and even participants' homes. These studies often require partnerships with teachers, practitioners, and clinicians. These professions use different evaluation metrics, different approaches to designing successful, engaging interactions, and ask different research questions. Therefore, this workshop aims to bring researchers from different disciplines together to discuss the unique challenges and opportunities of conducting longitudinal and microgenetic research with children and robots. Our intended audience includes researchers, practitioners, and students, who have children as their target users across disciplines in child-robot and child-computer interaction, computer science, psychology, child development, education, healthcare, entertainment, and more. We will publicize and solicit participation through our collaborators and mailing-lists, with a program hosting keynote speakers and panelists from the core disciplines of child-robot interaction.

This full-day workshop consists of three main presentation sessions, a poster session, and a panel/break-out session. The three main presentation sessions will include invited talks and contributed paper presentations. Each of the invited speakers in the workshop will present their work in the domain of long-term child-robot interaction, focusing on the issues of design, algorithms, data collection & analysis, evaluation, and applications. This will provide the participants with information about ongoing research and the scope of further improvements. Before lunch, the organizers will announce break-out session topics and help form groups including people from varied fields and focuses, e.g., research/clinical/industrial settings and robot-centered/user-centered approaches, to increase the chance of having diversified outcomes. Furthermore, the poster session will encourage early-career researchers and students to present their novel ideas and allow them to receive feedback from leaders and experts in the field. After the workshop, the organizers will produce a white paper compiling the presentations and discussions, to be used as a proposal for a journal special issue.