

Master thesis project proposal

Title: VR/AR in child rehabilitation

Explore the experiences and perspectives of children with physical or neurodevelopmental disabilities to inform design directions of VR/AR assisted child rehabilitation.

Description

Are you a creative and motivated master's student in Industrial Design Engineering? Are you interested in Virtual Reality or Augmented Reality (VR/AR) and involving children in design processes? We offer a unique opportunity to participate in a pilot study where you engage children in developing an innovative VR/AR project using ContextMapping as a research approach. This experience can be your master's thesis.

VR/AR is a promising technology to enhance pediatric rehabilitation therapy intensity in minimally supervised environments: it can be done independently at home and has the potential to promote children's motivation. Current barriers to VR/AR adoption include usability, acceptability, accessibility issues, and lack of end users' digital skills. To overcome these barriers, technology developers need to involve children and their caregivers early in the development process, undergoing an empathetic first step to understand their personal experiences, needs, challenges, desires, and priorities, and translate what is learned into meaningful design directions.

What will you do?

- Use contextual research (e.g. cultural probes and ContextMapping sessions) to map the daily life experiences of children with physical or neurodevelopmental disabilities to understand their experiences and needs
- Analyze the data using thematic analysis to find patterns and issues for further discussion in the next phase
- Develop a VR/AR project for children's rehabilitation needs by analyzing and translating insights into design proposals

What do we offer?

- Practical experience in an innovative research project with VR/AR and children with disabilities
- Collaboration with TU Delft, Erasmus MC, and Rijndam Rehabilitation
- Mathieu Gielen in the intended chair from IDE for this project

Who are we looking for?

- Master's student in Industrial Design Engineering (Design for Interaction Master)
- Affinity with VR/AR technology and designing for children
- Being creative, proactive, and communicative is a positive
- Fluency in Dutch to work with Dutch-speaking children

How to apply: Send your motivation letter and CV to L.MarchalCrespo@tudelft.nl. For more information, contact Laura Marchal-Crespo (L.MarchalCrespo@tudelft.nl) or Salvo Cucinella (s.l.cucinella@tudelft.nl).