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Supporting Health By Technology VIII



**Title presentation 1**

Empowerment by technology: a critical analysis using a co-design approach

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**Abstract**

*Background:*

As health-care policy increasingly focuses on ‘empowerment’ [1] technologies are developed to support persons on the autistic spectrum in independent living [2]. Technologies often straightforwardly help people performing daily tasks. We used co-design to explore first what ‘empowerment’ can actually mean, starting from the everyday lives of the people involved.

*Methods:*

Insights are grounded in three case studies. In each study we worked closely with one or two people on the spectrum (9 months - 4 years). Cycles of contextual interview, role-play, collaborative brainstorming, and prototype evaluation produced a designerly understanding of empowerment and empowering technology.

*Findings:*

Reflections on the cases revealed two interpretations of empowerment: 1) Functional: to design a tool that enables a person to (learn to) do something without the help of others. 2) Embodied: to design technology that helps a person to get a grip on ones’ lifeworld. This means to build technology as extensions of people’s talents and opportunities in the local setting, scaffolding a person’s own ways of doing [3].

*Discussion:*

In (1) co-design is a form of information gathering, to find out what is needed for a person to perform the task independently. In (2) the co-design project is just one phase in a larger transformation process driven by the person. We advise using tangible prototypes and collaborative activities in the use context. We envision technologies that people may later appropriate, personalize, and adapt in use. Finally, care-professionals have rich expertise and concern for clients, yet reason ‘as professionals’. It is important not judge the professional’s opinion as higher than that of the main user when making design decisions. Co-design can in fact help to align the two stakeholder perspectives.

*References:*

- [1] Fisher, D.B. (1994). Health care reform based on an empowerment model of recovery by people with psychiatric disabilities. *Psychiatric Services* 45(9): 913-915.
- [2] Grynszpan, O., Weiss, P.L., Perez-Diaz, F., & Gal, E. (2014). Innovative technology-based interventions for autism spectrum disorders: a meta-analysis. *Autism*, 18 (4), 346-361.
- [3] Van Dijk, J. & Hummels, C.C.M. (2017). Designing for Embodied-being-in-the-World: Two cases, Seven principles and one framework. *Proc. of TEI’17, Yokohama, Japan.*