

We play the future - short description of the project

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Digital transformation will continue to change the world of work and everyday life. It is important for society that both women and men engage in digital transformation professionally in the future and that career choices are not limited by gender stereotypes. To stimulate interest in IT careers, early role models and a playful approach to activities and professions related to digitalisation are needed (Turja, Endepohls-Ulpe, & Chatoney, 2009). Pretend play seems to be particularly suitable for this (Hauser, 2013). Pretend play gives children the opportunity to playfully explore the meaning of digital transformation in different contexts and to experience themselves as active agents of digital transformation. In pretend play, children can realise, adapt and extend their actions in the context of digital transformation according to their level of development (Arnott, et al. 2020). Teachers' guidance plays an important role during pretend play on digital transformation (Vogt, 2020). However, the potential of pretend play for the creative design of digital transformation has hardly been explored.

The aim of the experimental study "We play the future - gender sensitive pretend play impulses for kindergarten on digital transformation" was to develop pretend play impulses that would arouse interest in the future professions of digital transformation at kindergarten age. Children should be given the opportunity to playfully explore the meaning of digital transformation in different contexts and to experience themselves as active agents of digital transformation. Furthermore, first insights are to be gained on the extent to which pretend play impulses can be used to initiate playful engagement with digital transformation.

As part of the project, eight pretend play impulses were developed on digital transformation topics (e.g. 3D printers, robots or the Internet of Things). The play impulses were tested in a total of 15 kindergartens (February 2020 - June 2020). The implementation in the kindergarten was videographed during two half days. Selected sequences were analysed using multimodal interaction analysis (Goodwin, 2018, Montada, 2014). The focus is on the following research question: How do children explore the concept of digital transformation during pretend play?

Initial results show that children extend digital functions and develop new technical possibilities in play, as the following two examples illustrate:

- A customer at the IT-Centre wants to rent a robot, the IT expert asks what functions she needs and suggests "for example... boxing". The customer adds a function that involves baking cakes; the expert then pretends to program the robot accordingly.
- The owner of a 3D printing shop tells her customers who ordered a customised toy that she can locate them at any time on her tablet because the customer's earring contains a microchip.

Publications: <https://www.phsg.ch/en/research-and-development/projects/we-play-future>

IT-Centre: <https://www.youtube.com/watch?v=56blaPoLVFo>

Robotics: <https://www.youtube.com/watch?v=6ZghzKBP1Uw>

3D printer: <https://www.youtube.com/watch?v=LGYpDBoeGRE&t=1s>

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