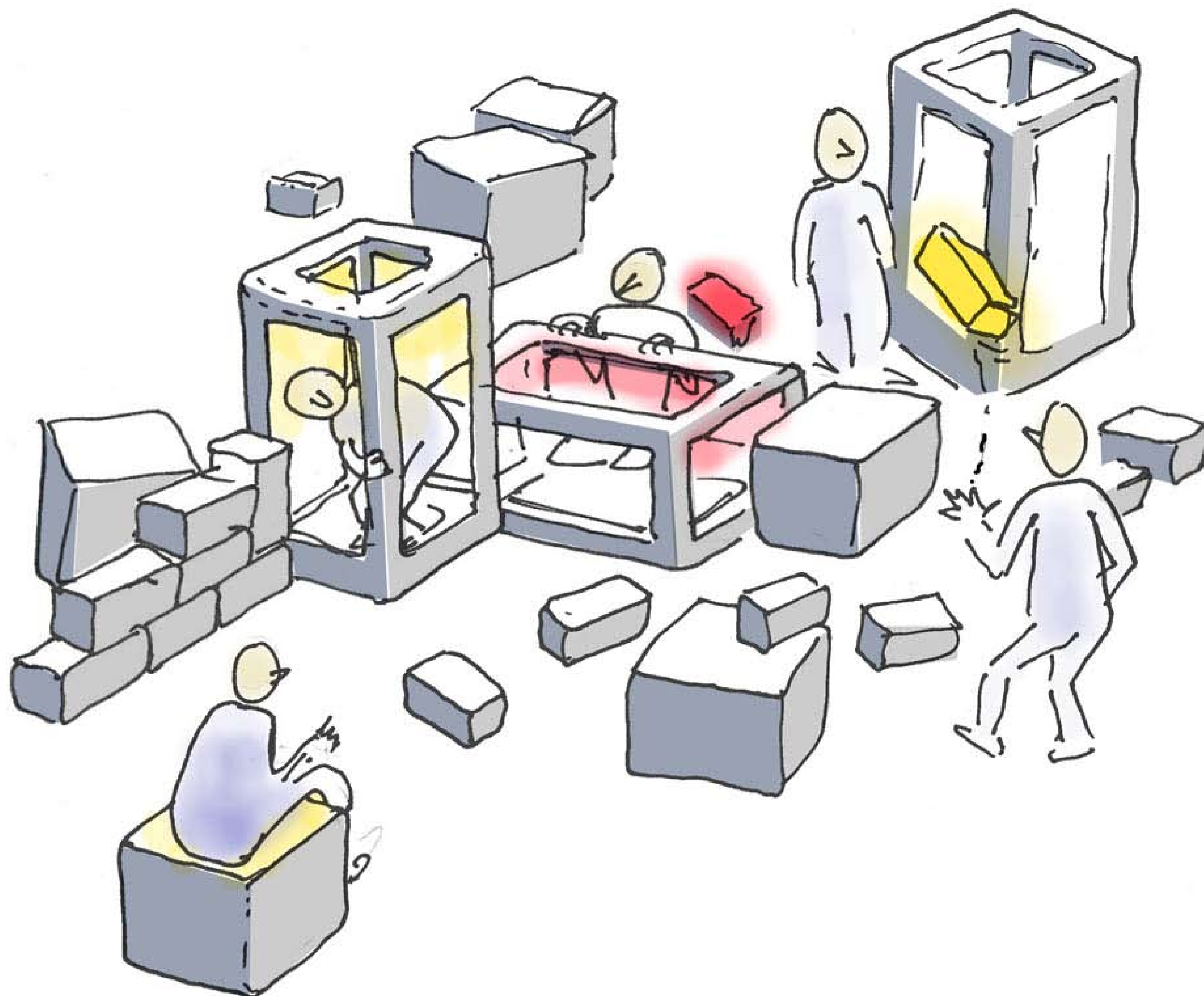




DESIGN
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Platform for Dutch Research in Design



Seducing people to play

i-PE

i-PE: Intelligent Play Environments to stimulate social and physical activities

About

Play is everywhere. Within play, a temporary perfect world is created with its own boundaries and rules. The aim of this project is to develop knowledge, insights and guidelines for the design of intelligent play environments that stimulate social and physical play. Such environments consist of interactive objects that respond to the players' behavior and motivate players to be active. The environments use an open-ended play philosophy which stimulates players to create their own games and be socially engaged.

Background

Play is a wonderful activity; it can totally absorb its players and enables them to create a world outside of everyday life. For children, playing is also a way of practicing various skills and exploring imaginary worlds. Through play, children learn about themselves and their relation to the environment. While the amount of time spent playing outdoors is decreasing, indoor gaming becomes much more popular. This shift has a negative effect on children's amount of physical activity. Within this project, we want to make playing outside more attractive by integrating aspects of gaming (e.g., interactivity) into outdoor play objects.

Questions

The overall project objective is addressed in three research activities:

- 1 Develop intelligent play environments providing a playful persuasion experience - *How to design playful persuasive experiences that lead to social and physical activities?*
- 2 Develop an intelligent decentralized platform activity - *How can intelligent technologies contribute to an adaptive and flexible playful solution?*
- 3 Develop interactive experience assessment tools to assess children's interests - *How to develop methods to research and communicate rich interactive experience assessment with children?*

The first two research activities are addressed at Eindhoven University of Technology, the latter at Delft University of Technology.

Results

The project will develop knowledge, methods and guidelines for design for social and active play. This knowledge will be shared with industry, such as technological companies and companies that create play solutions. Currently, initial concepts are developed into first prototypes for an explorative study. Furthermore, a first version of the assessment tool has been developed and will soon be evaluated.

Facts

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Partners

- Eindhoven University of Technology, Dept. Industrial Design
- Delft University of Technology, Dept. Industrial Design Engineering
- Kompan
- Almende
- NYOYN
- Patching Zone
- Innosportlab Sport en Beweeg
- Sports & Technology
- Driessens & Verstappen.

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Case

The illustration below shows the initial concept called FlowSteps. FlowSteps consists of a large number of flexible interactive mats that players can use to throw, flip, jump or sit on. Players can create their own games by placing the mats on the floor in any position they like. The design does not communicate a clear function because the embodiment is neutral. FlowSteps provides players with opportunities to design their own play, creating playgrounds that support their diverse forms of play.

FlowSteps can attract players when no-one is playing by randomly lighting-up one of the mats. This phase is called the invitation-mode. As soon as one player stands on the active mat, the system changes into play-mode. The player can now explore the interaction possibilities with the mats, alone or with others. They can start developing their own games by giving meaning to the output modalities. In play-mode, the system becomes more passive. It follows players in their game instead of actively encouraging them to perform a certain action as in the invitation-mode.

FlowSteps is our first exploration in designing for physical and social play. Currently, a working prototype is developed that will be evaluated with children.

Case: flowsteps

