

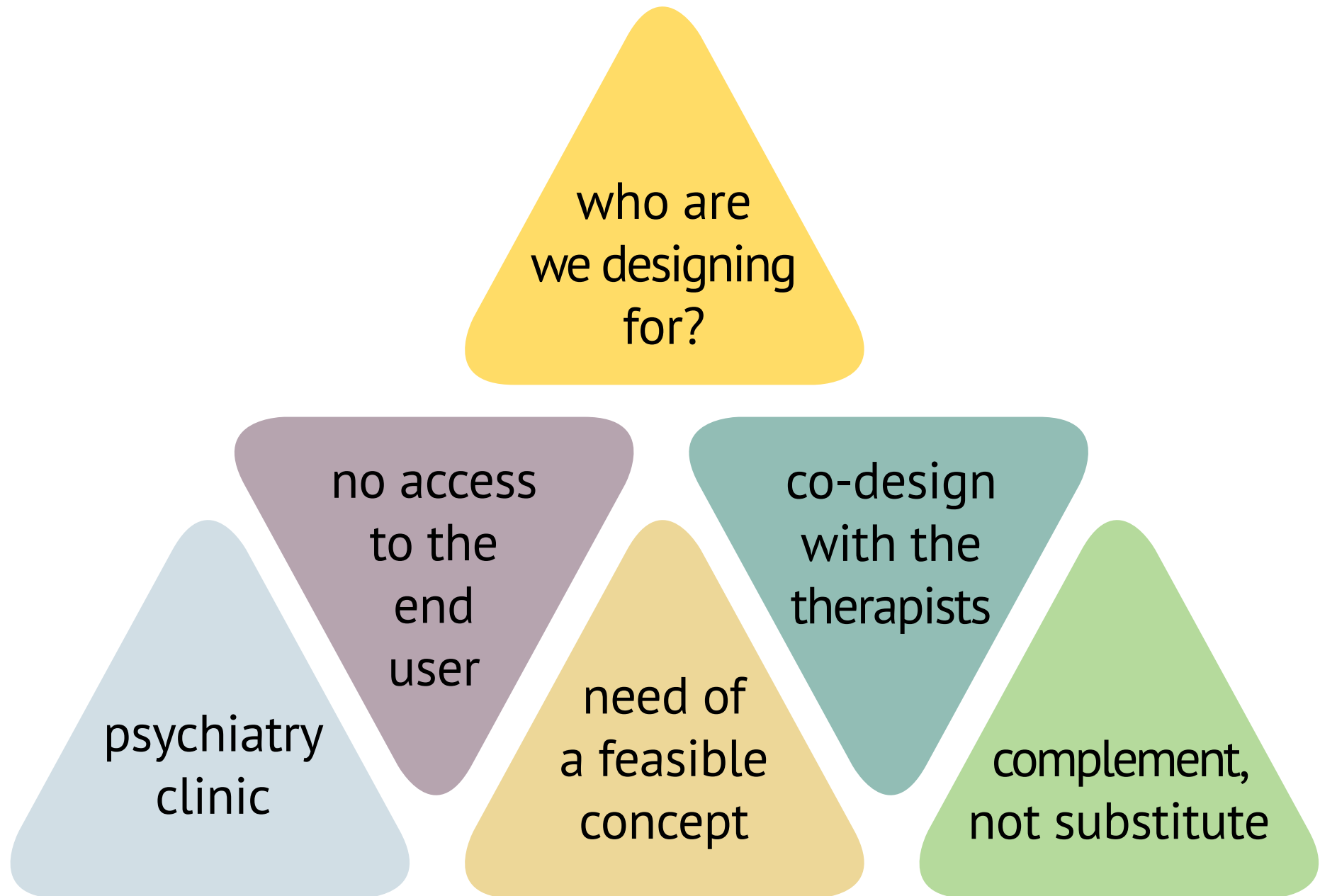
Malmö University, IDM

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Tangible interfaces for children's mental healthcare

Supervisors: Simon Niedenthal, David Cuartielles





Process & method

Research question

How can we develop interaction design solutions for children's mental healthcare without direct access to the end user?



Artifact

Hypothesis 1

Tangible interface is more effective in supporting communication between a child and a psychologist during the therapy session than illustrative 2D artifacts.



Artifact

Hypothesis 2

A tangible interface is more effective than 2d artifacts in creating engagement with a child's feelings and in enabling him or her to perceive themselves from an outer perspective.



Initial interview: area, needs, practice, communication

Ideation: 3 directions

Participatory design with the psychologists

Concept development & mock-up (single idea)

Participatory design with the psychologists:
role-play “Psychologist & child”

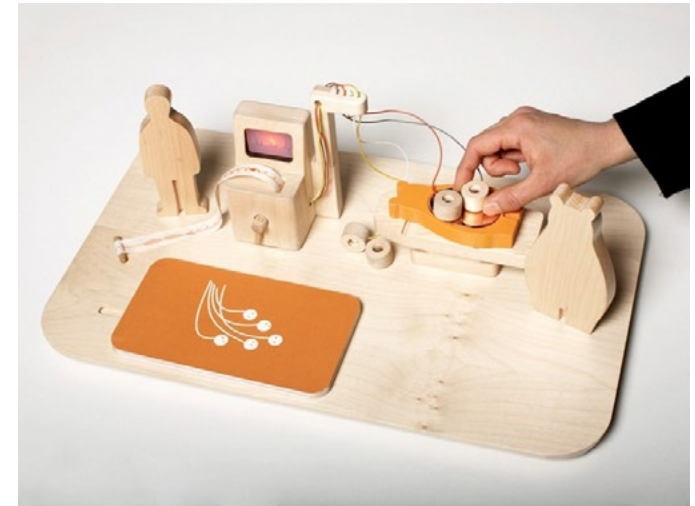
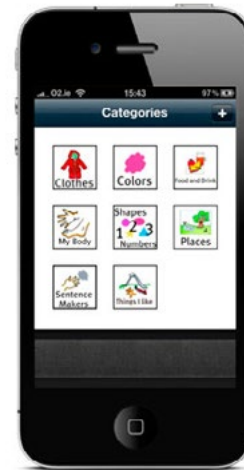
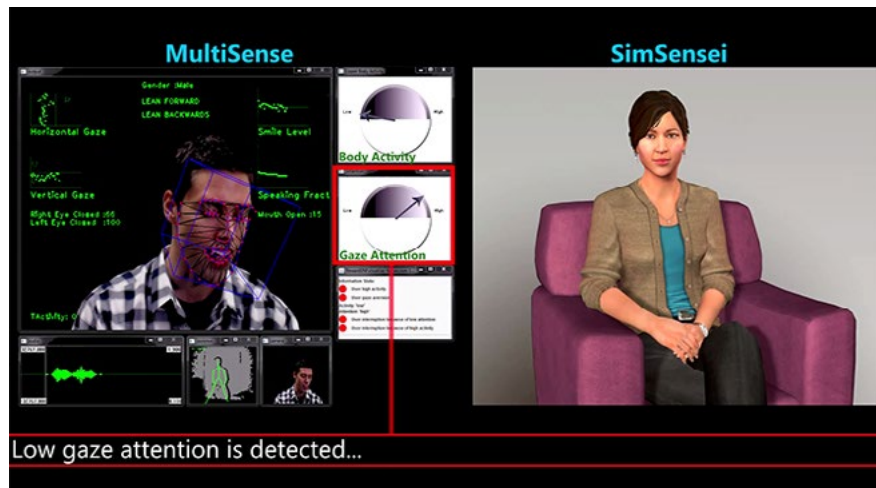
Hi-fi prototyping

User-test with **real users** in real situations

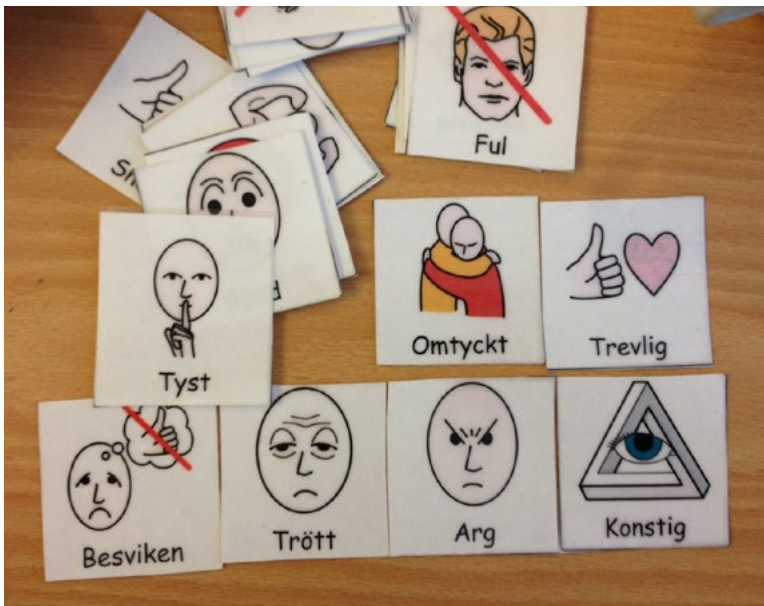
Evaluation: questionnaire & discussion



Related projects



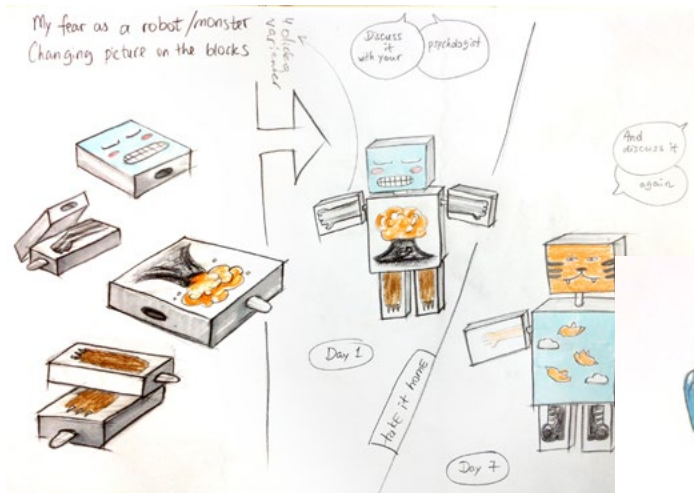
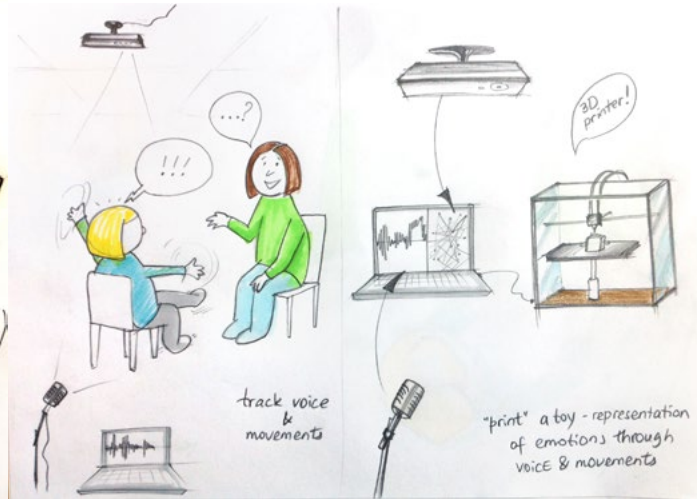
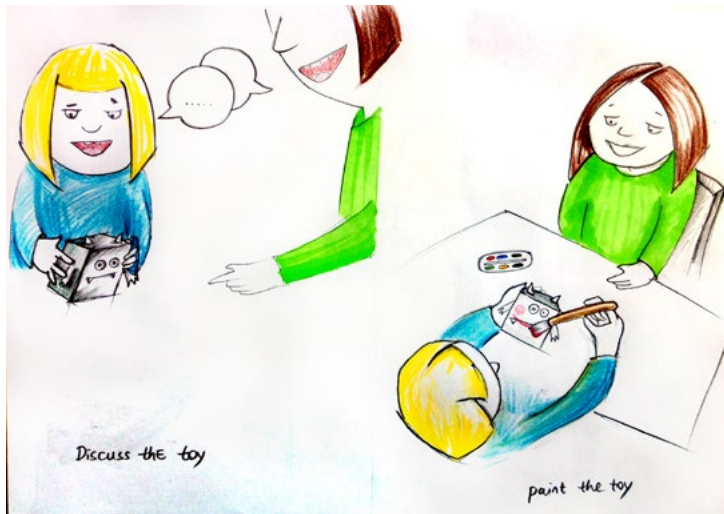
Existing tools



Co-design with the therapists



Storyboards Mock up Roleplay



**Field
work**

encourage
communication

how do others
see me?

physical
object

Theory

semiotics

avatar

TUI



Robbi

is an interactive toy that supports communication between a child and a psychologist during their therapy session

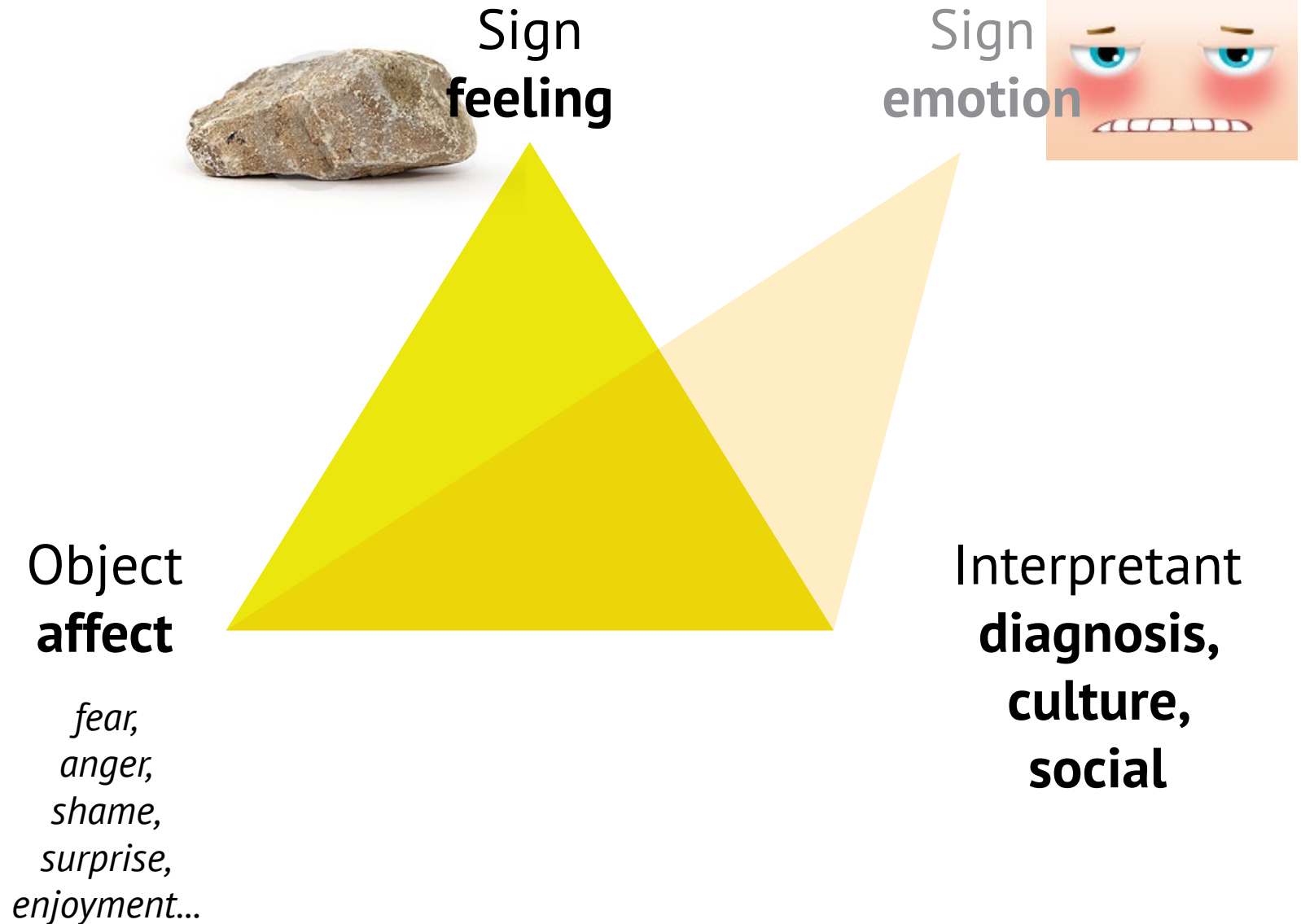
use buttons to change the facial expression
if it does not match your feeling inside



01:03



Semiotics paradigm + Affect psychology

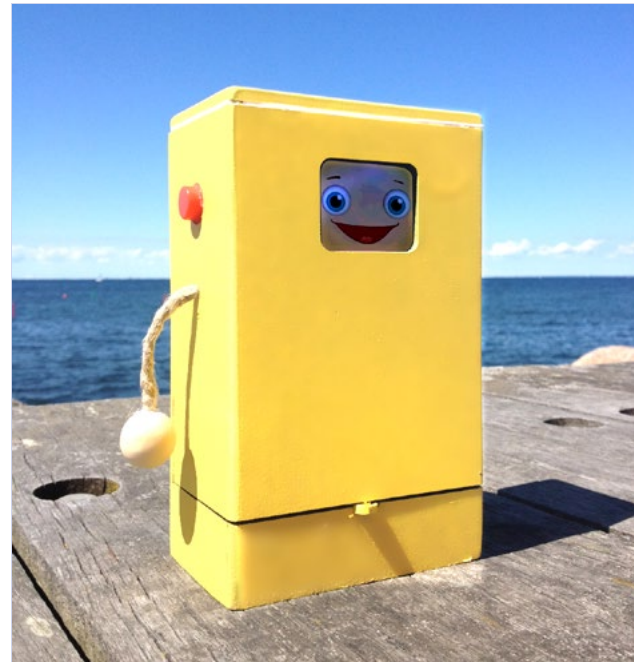


Prototyping



paper mock up

early design stages,
concept development



Arduino-based
working prototype

2-month
user testing



fully functional
3D-printed prototype

improved functionality
based on the testing
feedback

