Tangible interfaces for children’s mental healthcare

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Research settings

- no access to the end user
- psychiatry clinic
- need of a feasible concept
- co-design with the therapists
- complement, not substitute

who are we designing for?
Research question

How can we develop interaction design solutions for children’s mental healthcare without direct access to the end user?
Hypothesis 1

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

Storyboards
Mock up
Roleplay
<table>
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<tr>
<th>Framework</th>
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<tr>
<td>Fieldwork</td>
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<td>Theory</td>
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Design concept

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.
Semiotics paradigm + Affect psychology

Theoretical framework

- Object affect
  - fear
  - anger
  - shame
  - surprise
  - enjoyment...

- Sign feeling

- Sign emotion
  - diagnosis
  - culture
  - social
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