



10th April 2024 on Zoom

Psychology of New Technologies: Acceptance and Usability

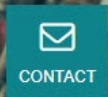
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Media Psychology and Media Design Group

 TEAM RESEARCH TEACHING PUBLICATIONS I3TC COLLABORATIONS NEWS



Fachgebiet
Medienpsychologie und Medienkonzeption

Research Group
Media Psychology and Media Design

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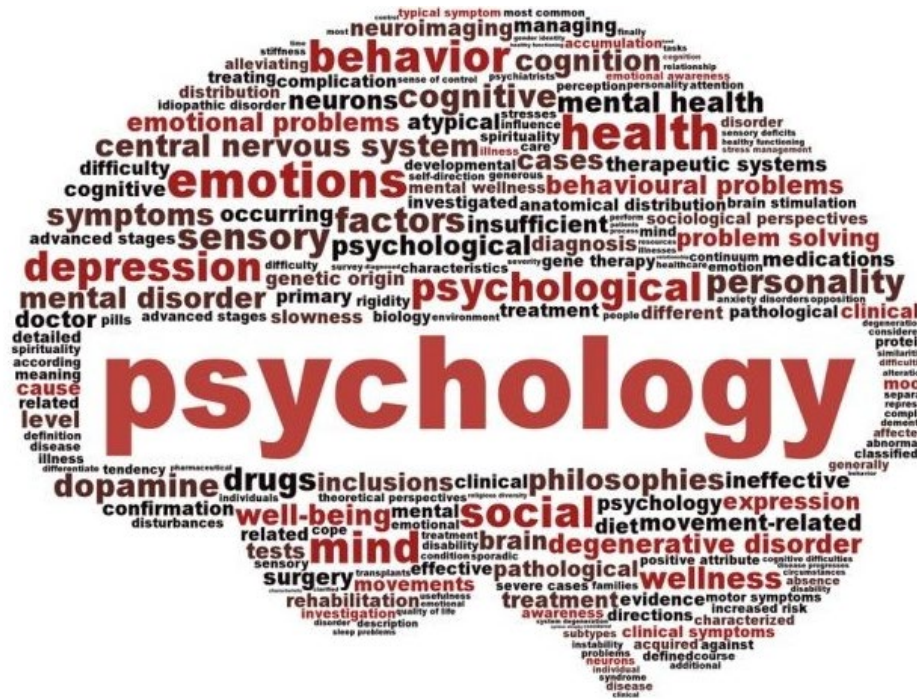
Agenda

Part 1: Psychology as a Science
and Links to Technology

Part 2: Example Studies:
Telepresence Robot and AR System for Older Adults

Agenda

Part 1: Psychology as a Science and Links to Technology



„Common Sense“ or „Common Nonsense“?

Psychology as a Scientific Discipline

Basic Sub-Disciplines

- General Psychology
- Social Psychology
- Personality Psychology
- Developmental Psychology
- Psychological Methodology

Applied Sub-Disciplines

- Clinical Psychology
- Pedagogical Psychology
- Occupational Psychology
 - *Media Psychology*
 - *Psychology of Technology*
 - *Engineering Psychology*
 - *Human Factors*

Psychological Research Methods

Study Designs

- Qualitative vs. Quantitative
- Cross-sectional vs. Longitudinal
- Non-Experimental vs. Experimental

Data Collection Methods

Reactive Methods

- ❖ Observation
- ❖ Interview
- ❖ Questionnaire

Non-Reactive Methods

- ❖ Archival Research
- ❖ Digital Trace Data

Research Ethics

- Research Ethics Training
- Approval by Ethics Committee
- Declaration of Conflict of Interests

Open Science

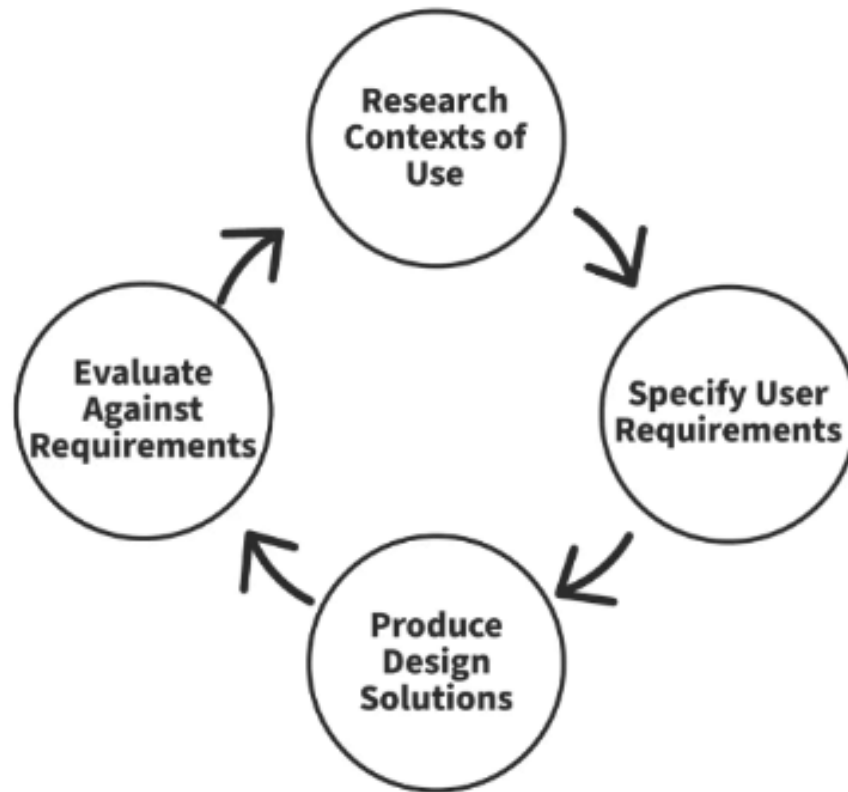


Agenda

Part 1: Psychology as a Science
and Links to Technology

Part 2: **Example Studies:**
Telepresence Robot and AR System for Older Adults

User Experience (UX) Design



Why UX research is important



CO-HUMANICS Project

Co-presence of Humans and Interactive Companions for Seniors

**Telepresence
Robot**

**Augmented
Reality System
(HMD & Avatars)**



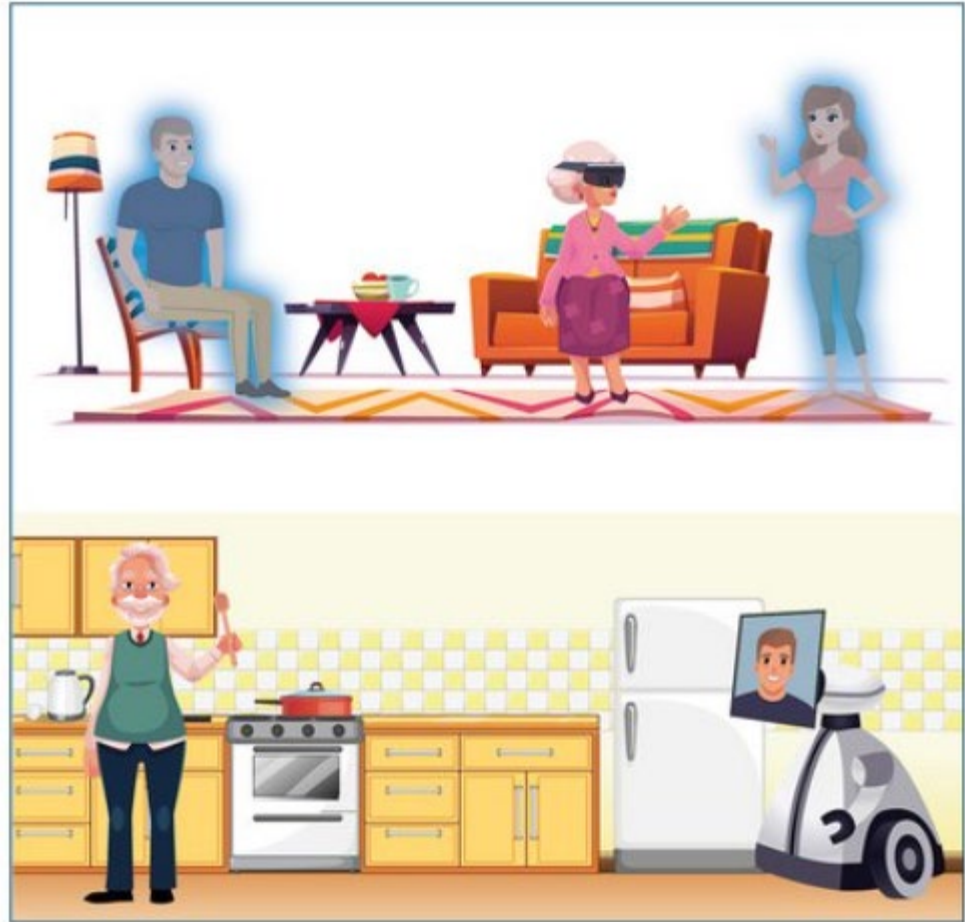
www.co-humanics.de

Requirements Analysis

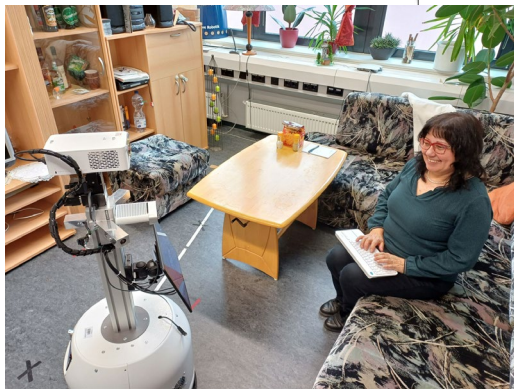
Study Type: Interview Study

- Approval of Ethical Committee
- Sample: 10-15 diverse older adults (recruitment is always difficult)
- Interview guide with good technology visualizations
- Interview duration 1-2 hours, participants choose time and location
- Interview transcription
- Interview analysis with qualitative content content analysis (e.g. software tool MaxQDA)
- Interpretation and dissemination of empirical results

Requirements Analysis



User Test Telepresence Robot



AUFLEGEN

Participants need to come to the lab
Participants need to fulfill well-defined tasks
Data collection through observation, questionnaire,
interview

User Test Augmented Reality System



Fig. 2. The figure illustrates (a) study participants wearing an AR headset; (b) the avatar used in the study as seen from the point of view of the participant. The photos are published with explicit written consent of study participants.

GROOVE project results
from the psychology team

<https://www.tu-ilmenau.de/mpmd/research/co-humanics-project-work-package-evaluation>

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