

UNIVERSITY OF ULM

Presentation Bachelor Thesis

Investigating the Impact of an Intervention
that Increases Users' Awareness of Phubbing

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Media Informatics | 2024



Introduction

◆ —◆

Phubbing (v)¹ The act of snubbing someone in a social setting by looking at your phone instead of paying attention.

[McCann, 2013]

→ Phubbing in 62 out of 100 observed 10-minute face-to-face conversations

[Vanden Abeele et al., 2019]

Introduction

01

Negative Effects of Phubbing

- Perceived as Disrespect and Desinterest
- Feeling of Social Exclusion and Abandonment [Klein, 2014]
- Reduction in the Relationship Quality

([Pancani et al., 2020], [Lutz & Knop, 2020], [David & Roberts, 2021])

02

Phubbing is an unconscious Behavior (mostly)

- Even in Opposition to own Expectations

[Aagaard, 2020]

03

No Methods to counteract Phubbing yet

Make unconscious behavior conscious
→ Use Intervention in the Moment of Phubbing
[Prochaska et al., 1982]

Research Question

*Investigating the Impact of an Intervention
that Increases Users' Awareness of Phubbing*

User Study

03

Duration of 2 Weeks

04

Two conditions, each 1 Week

→ Control Mode without Intervention

→ Treatment Mode with Intervention

05

Counterbalanced, Within-Subject Field Study

User Study

01

Participation in Groups of Two

→ See each other at least twice a Week

02

20 Participants

→ 10 female, 10 male

→ Age between 21-56 Years

(mean = 31.45, SD = 8.99)

03

App that displays an Intervention

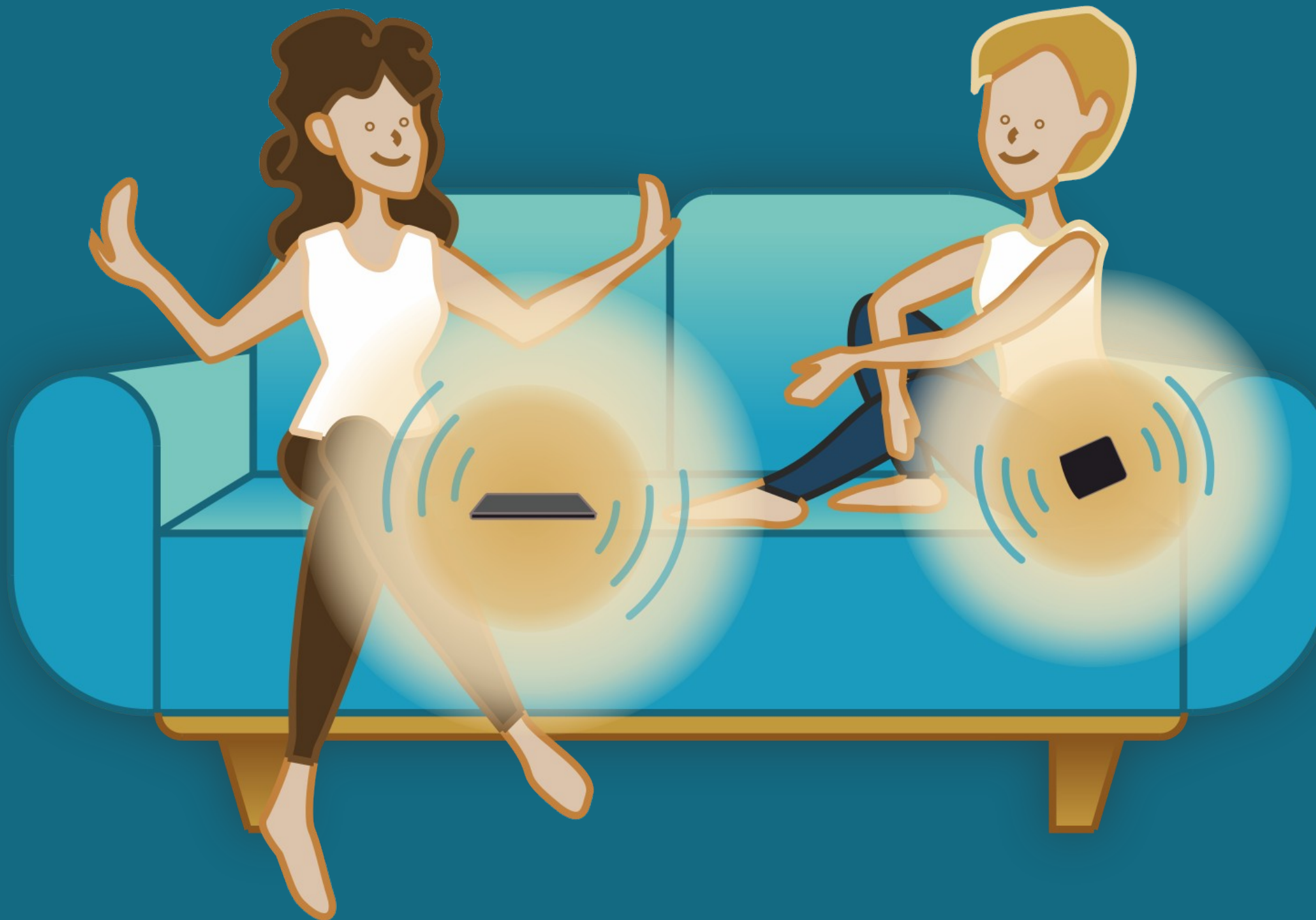
when Smartphone is used during a Social Interaction

How it Works



- App-Service *runs in the background*
- ***Sends Beacon*** via BLE
- ***Scans for Beacons*** within a radius of 3.6 m (social distance)

[Hall, 1966]

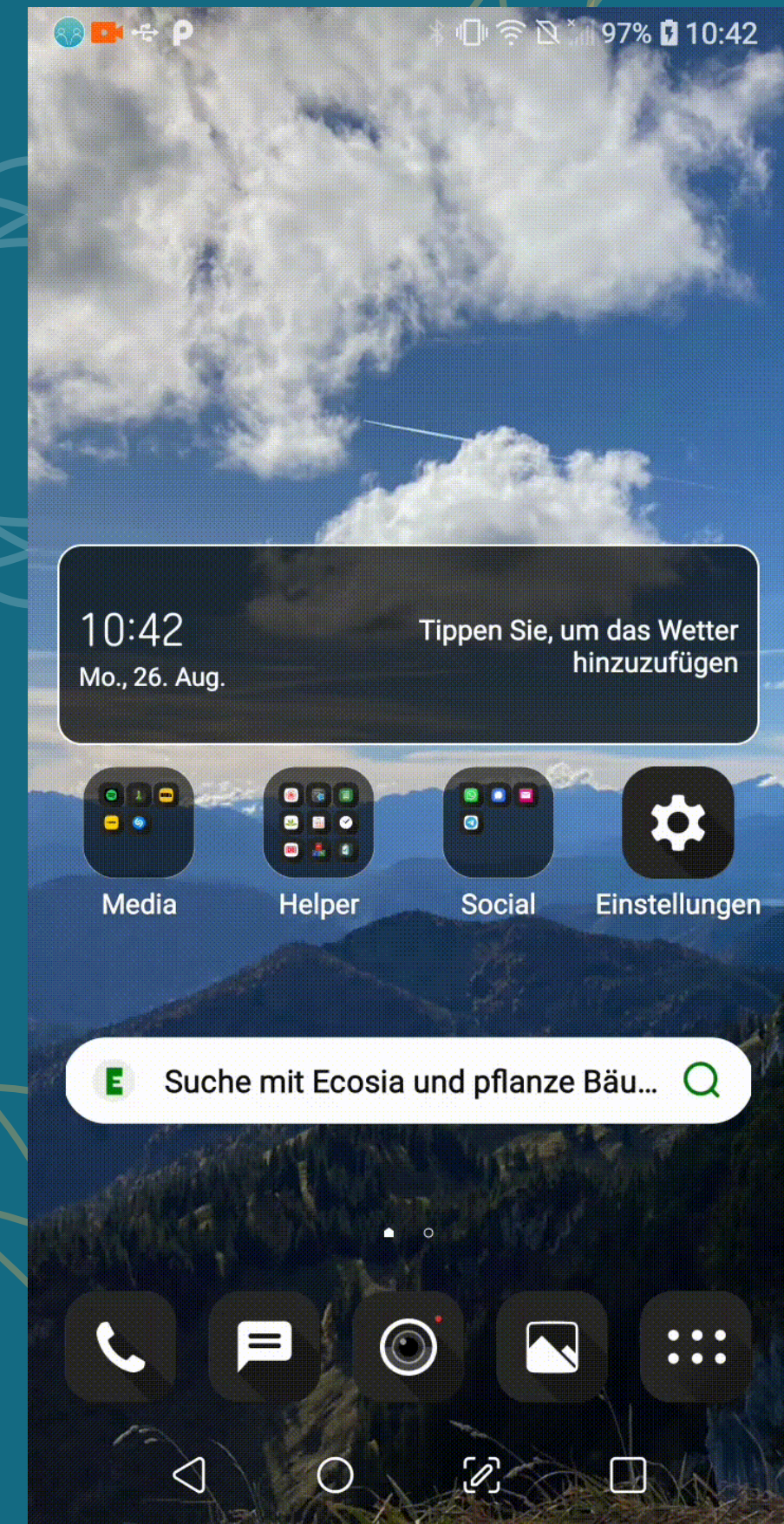
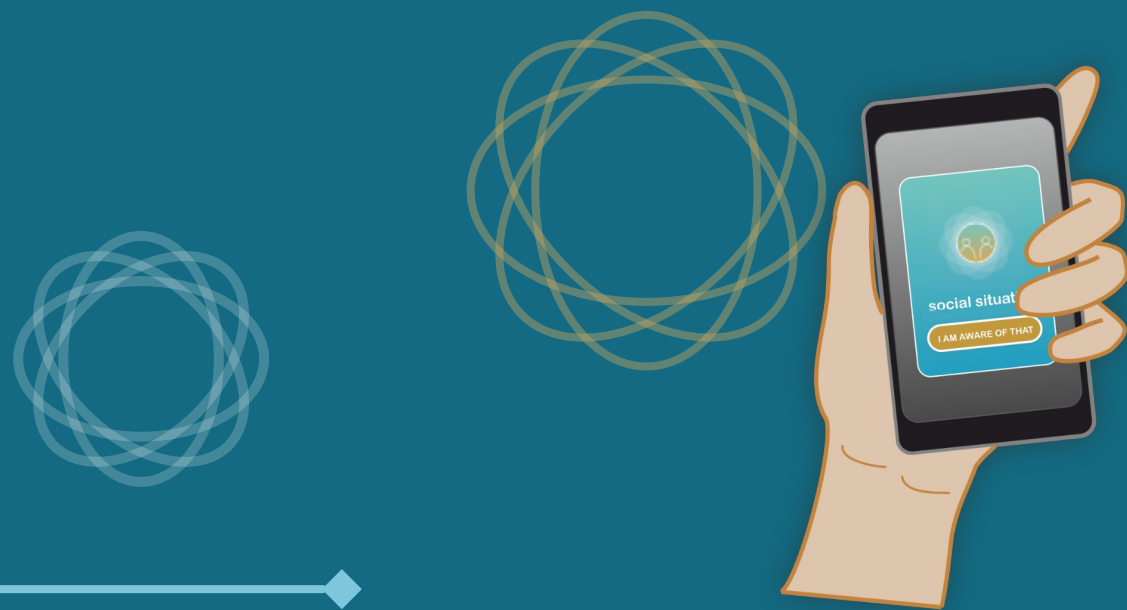


→ ***Detects other Beacon and registers a social interaction*** ◆

Intervention

→ ***Displays intervention*** if unlock screen while social interaction

→ Intervention closeable after 3 seconds



Data Collection

01

Mixed-Method Data Collection

02

Quantitative Data

→ Questionnaires after each Social Interaction

(RSHCI [Ehrenbrink et al., 2018], PCI and PDSO [Vanden Abeele et al., 2019], PS and SAS [Karadag et al., 2015], PISO [Aron et al., 1992])

→ Durations of Smartphone Use and Social Interactions

03

Qualitative Data

→ Interviews of 10 Minutes with each Participant

Data Analysis

01

Quantitative Data
→ Descriptive Statistic

02

Qualitative Data
→ Reflexive Inductive Thematic Analysis

NECESSITY OF THE
INTERVENTIONS

EFFECTS OF THE
INTERVENTIONS

Results

FUTURE WORK

Necessity for the Interventions

01

Experiences of Participants confirm Related Work

→ The Problem of Phubbing actually exists

→ Phubbing mainly by Friends, Relationship Partners, Family

“I think if people don't phub but talk to you and try to interact, then you automatically get to know each other better. But if someone is always on their smartphone, you have a barrier that blocks that.”

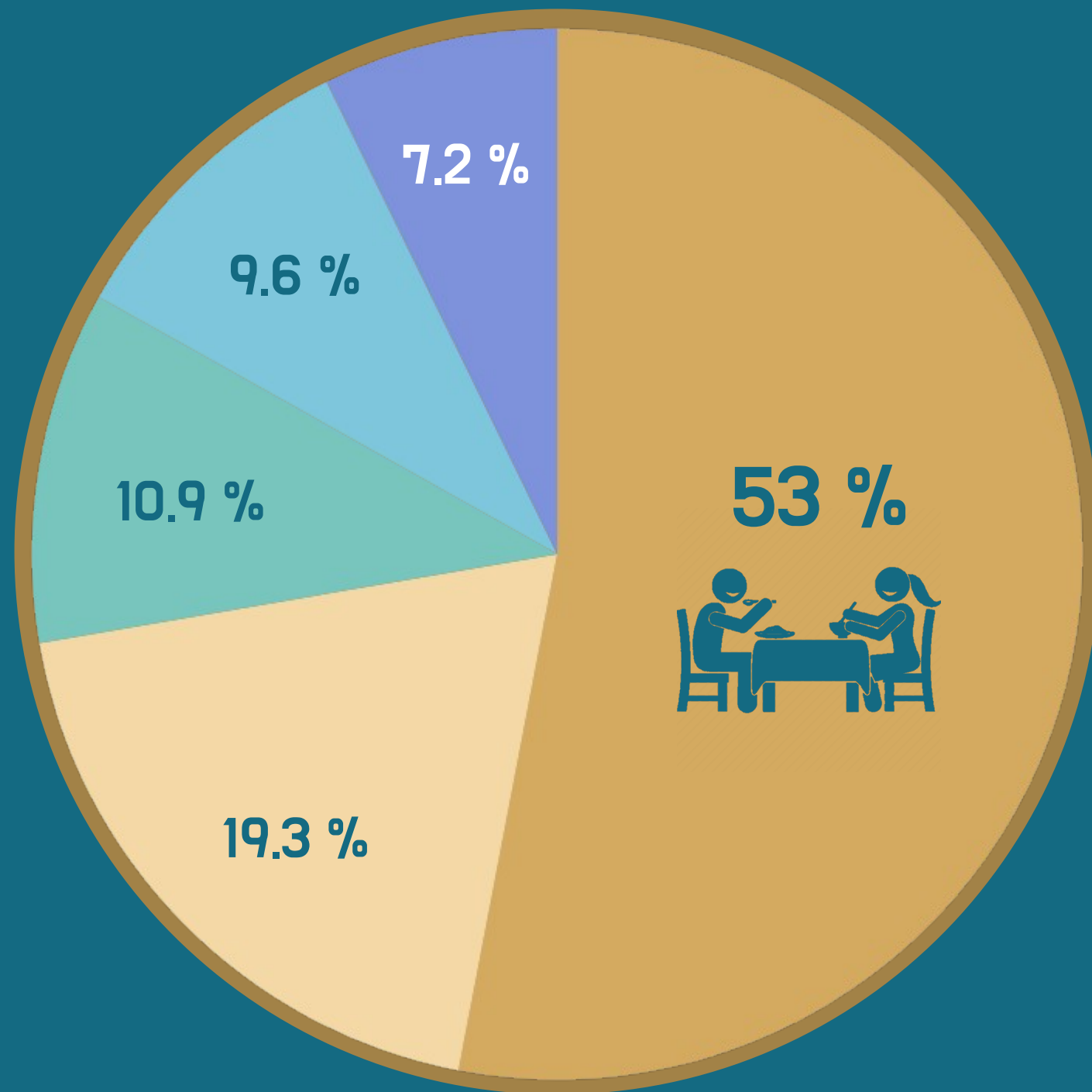
[Participant 7B]

02

The phubbed Person shouldn't have to ask not to be phubbed

→ Phubbers should change their behavior

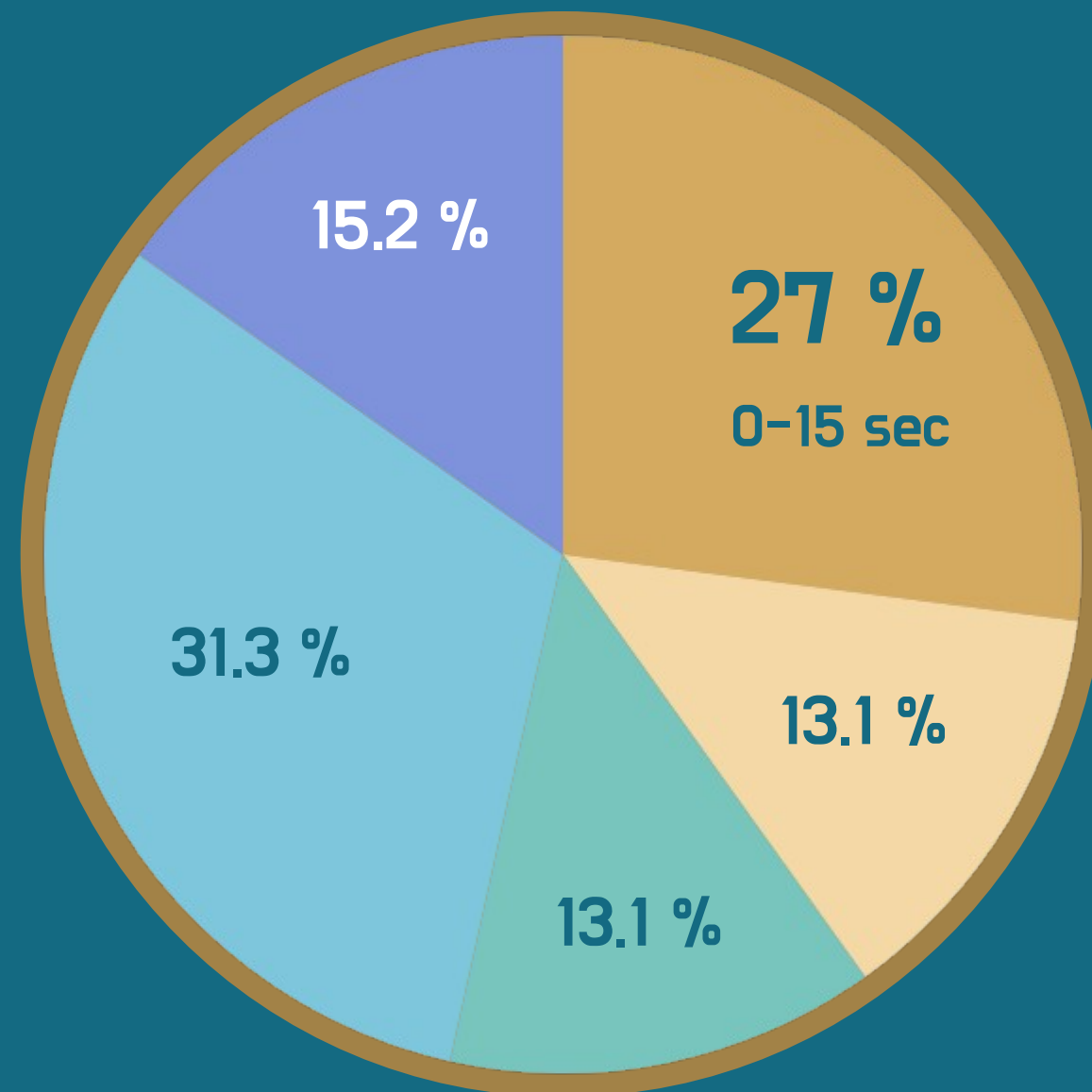
Types of the Social Interactions or Activities while Using Phone



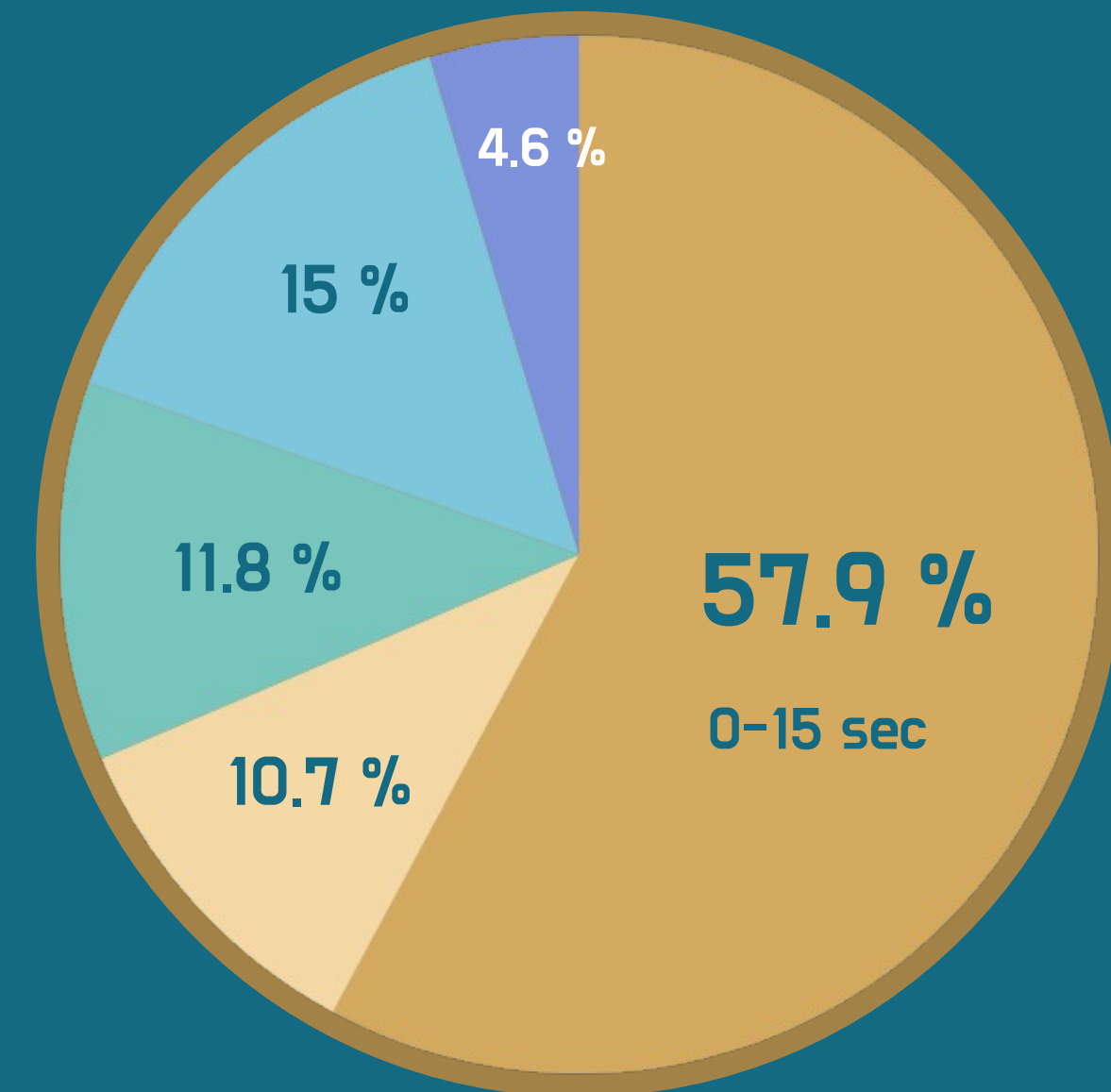
- eating or drinking coffee together
- chilling together
- talking to each other
- doing activities together (cooking, shopping, etc.)
- working or studying together

Percentage Duration of Phone Uses While Social Interactions

without Intervention
total unlocks: 329



with Intervention
total unlocks: 280



● 0-15 sec ● 15-30 sec ● 30-60 sec ● 1-5 min ● >5 min

Effects of the Interventions

01

Reduction of Phubbing Behavior

02

Better Awareness of Own Phubbing Behavior

“I noticed during the study that I sometimes just take my phone out. And when I saw this message, I thought about why I had taken it out. If what I was about to do was really necessary to do now (in social interaction). It's such an additional barrier and you use it more consciously because of that.”

[Participant 7B]

Future Work

01

Individually Customizable Interventions

02

Phubbing depends on Context of the Conversation
→ Optimization of the Phubbing Detection

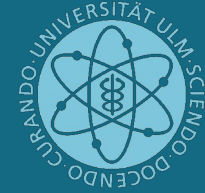
Conclusion



Study results show that...

- the Interventions increase Awareness of Phubbing behavior
- the Interventions reduce frequency of Phubbing moments
- Measures against Phubbing are necessary

I think that Phubbing can be effectively reduced through individually adaptable, context-dependent interventions.



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→ **THANK YOU** ←

Presented by Ronja Lehle

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