Study Design Document: Study II

Content

1) Purpose of study (research hypothesis/questions)

The purpose of the study is to understand how social media posts shape individuals' emotions and behaviors related to hobby engagement and to identify concepts that promote healthier relationships with hobbies.

The second question investigates concepts and features for the prototype and their degree of helpfulness and/or desirability to aid participants form a healthy relationship with their hobbies to support their wellbeing.

    I.   How do individuals experience, interpret, and respond to social signals related to hobby engagement in a digital environment?
        a. Does the type of hobby and its "social status" influence feelings of guilt and positive feelings?
   II.   Which concepts and design elements help improve their relationship with their hobbies?

2) Participant profile

Participants should fulfill the following criteria:
- Age between 18 and 30 years
  - Lower bound to make sure all participants are of legal age
  - Upper bound to assume that technology played a significant role in their upbringing (digital natives), for a deeper and more nuanced perspective on the influence of social media in everyday life
- 10-12 participants, so that 2 focus groups can be formed
- Prior experience with social media

3) Compensation plan

- Offering (homemade) snacks and drinks during the focus group sessions

4) Methodology

Study Design:
The study aims to provide qualitative results. Using multiple tasks, the study offers qualitative insights to investigate the research question. These results provide in-depth information to shape the design of the prototype in question.
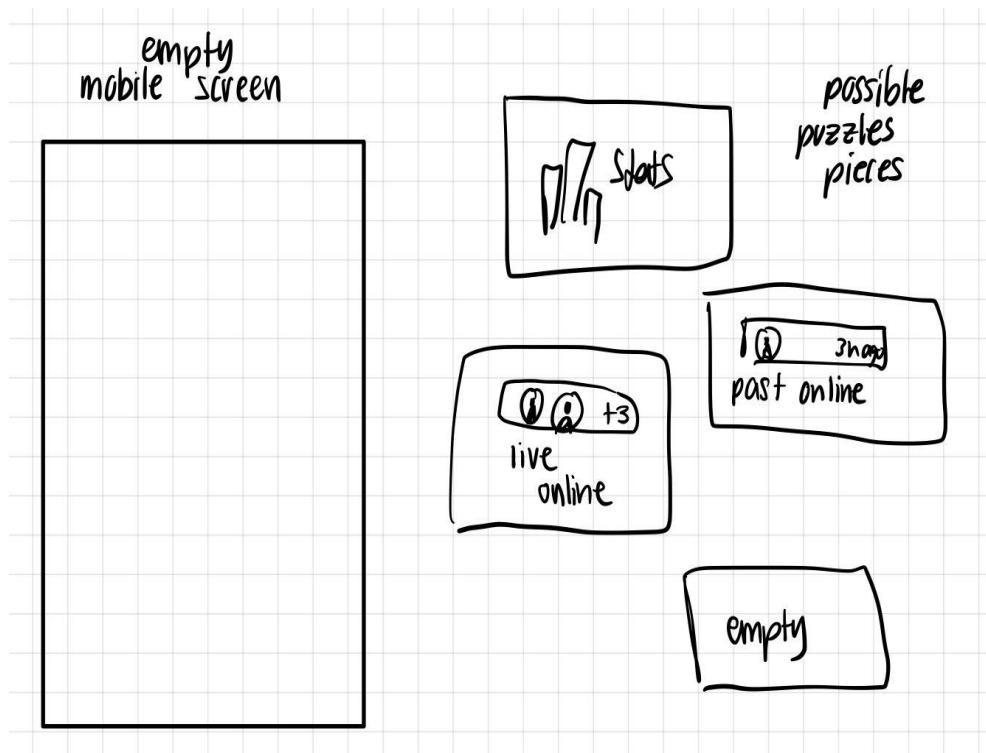
Number of participants: 10-12 (5-6 per focus group)

Focus Group Protocol:
Participants get different tasks during the focus groups. They have a certain amount of time to work on their own and then discuss it with the moderators. The entire session will be held in German because we want people to speak in their mother tongue, as it is easier if you are not used to discussing in English.

For the first task, we will place pictures (see appendix) showing different situations around the room. Each participant receives a set of sticky notes, some with example emotions and some blank ones to fill out themselves. Participants must add at least one emotion to each picture, but they can add more if they want. They will then place their sticky notes directly onto the corresponding pictures. After about five minutes, we will discuss with the group why they placed certain emotions on each picture. With this task, we want participants to identify and reflect on the sentiments and emotions they associate with the different situations.

For the second task, we want our participants to create a mobile app. We provide an empty mobile screen where they can add different features. We also provide multiple features we thought of, such as the existing ones our app had in the quantitative study (see appendix again). It is up to the participants which features should be chosen and which ones they create themselves. Attached below is a sketch of the task. We especially look out for the reasons they mention in the discussion as to why they chose a particular feature. In the end, they present their design and its features, and the moderator will ask why certain elements were not included.

The third and last task will be a group discussion. At the beginning of this section, the participants have one minute to write down their thoughts about the tasks in the focus group. It will be an open discussion. The moderator will also have some guiding questions ready in case the conversation slows down or comes to a sudden stop.

5) Material & Apparatus

Moderation setting:
- o Laptop/tablet with the scenario or printed out scenario
- o Audio recording devices (2 per focus group session)
- o Notepads
- o Nameplates (stickers)

Tasks & participants setting:
- o Post-its for participants (task 1)
- o Pictures hanging in the session room (task 1)
- o Printed out frame of a mobile application (task 2)
- o Printed out UI components to use in a mobile application (task 2)
- o Snacks & beverages
- o Spare pens/markers + paper for notes
- o Nameplates (stickers)

6) Structure & Timeline

Preparation required before the study starts:
- o Consent form (audio recording, photos, offline speech processing)
- o Demographic data form
- o Booking a suitable room with a capacity of 7+ people
- o Participants list (at least 12)
- o Invitation of potential participants (at least 12)
- o Time coordination: participants – moderators – rooms
- o Step-by-step focus group moderation scenario
- o Snacks/beverages for participants
- o Preparation of UI components for the second task (mobile app design)
- o Printing out artifacts used in the group session

No ethical approval is needed, as the study is not designed to process confidential/sensitive information.

Timeline of focus group:

Phase	What's happening	Material/Staff	Time (min)
Prep	Participants will be informed about the experiment and its structure (consent form), Collection of demographic data	Consent form, Demographic Questionnaire	20 (asynchronously, before the study)
Running: Warm-up	Moderators welcome the participants and present them the plan for the session, Ice-breaker questions, Participants briefly introduce themselves and write down their names on nameplates	Nameplates	10
Running: Task 1	Pictures – emotions mapping (desc. above)	Pictures, post-its	35
Break			5
Running: Task 2	Design of a supportive hobby tracking app (desc. above)	Printed out app wireframe, UI components	30
Running: Task 3	Open group discussion with possible moderators' intervention in case the discussion isn't going as planned	Additional questions to initiate a discussion	10
Post	Moderators thank the participants for their attendance, Optional time for discussions "off the record"		5+

7) Analysis

Method of Analysis:

The analysis will follow a thematic analysis approach, as we broadly divide the process into two phases: within-team analysis and cross-team synthesis.

First, each team member will independently review the transcripts and notes to identify initial codes and themes. This will involve open coding, where we label segments of data that are relevant to our research questions. Next, the two teams will each meet separately to discuss and refine these codes, merging similar codes and developing broader themes. This will be repeated iteratively until a consensus is reached on the final set of themes. Finally, one team member will participate in a cross-team meeting to compare and contrast the themes identified by each team, looking for commonalities and differences in the themes identified. If necessary, we will again iterate on the coding.

Ultimately, our goal is to be able to present a comprehensive narrative that captures the key insights from all focus groups in the final report.

Data Format:

The data will be in the form of audio recordings, notes by the observing team members (as described above), and any artifacts produced during the session (e.g., sticky notes, drawings), or photos thereof.

The audio recordings will be transcribed verbatim with the help of modern speech recognition software (offline AI to ensure privacy), followed by manual correction to ensure accuracy. Notes and artifacts will be digitized for ease of analysis.

Throughout the analysis, we will use qualitative data analysis software (e.g., Dedoose) to organize and manage the data, facilitating the coding process and theme development.

8) Personnel Involved & Responsibilities

Before the Study:
- Methodology Concept – Alina & Tamara
- Session scenario – Alina & Tamara
- UI components (task 2) preparation - Aleks
- Preparation of snacks & beverages – Alina & Tamara
- Team coordination – Aleks
- Participants invitations, room booking & access – Aleks
- Printing of additional artifacts - Aleks
- Consent form - Aleks
- Demographic data form - Alina
- Searching for potential participants – all team members (at least 2 potential participants pro team member)
- Documentation – all team members
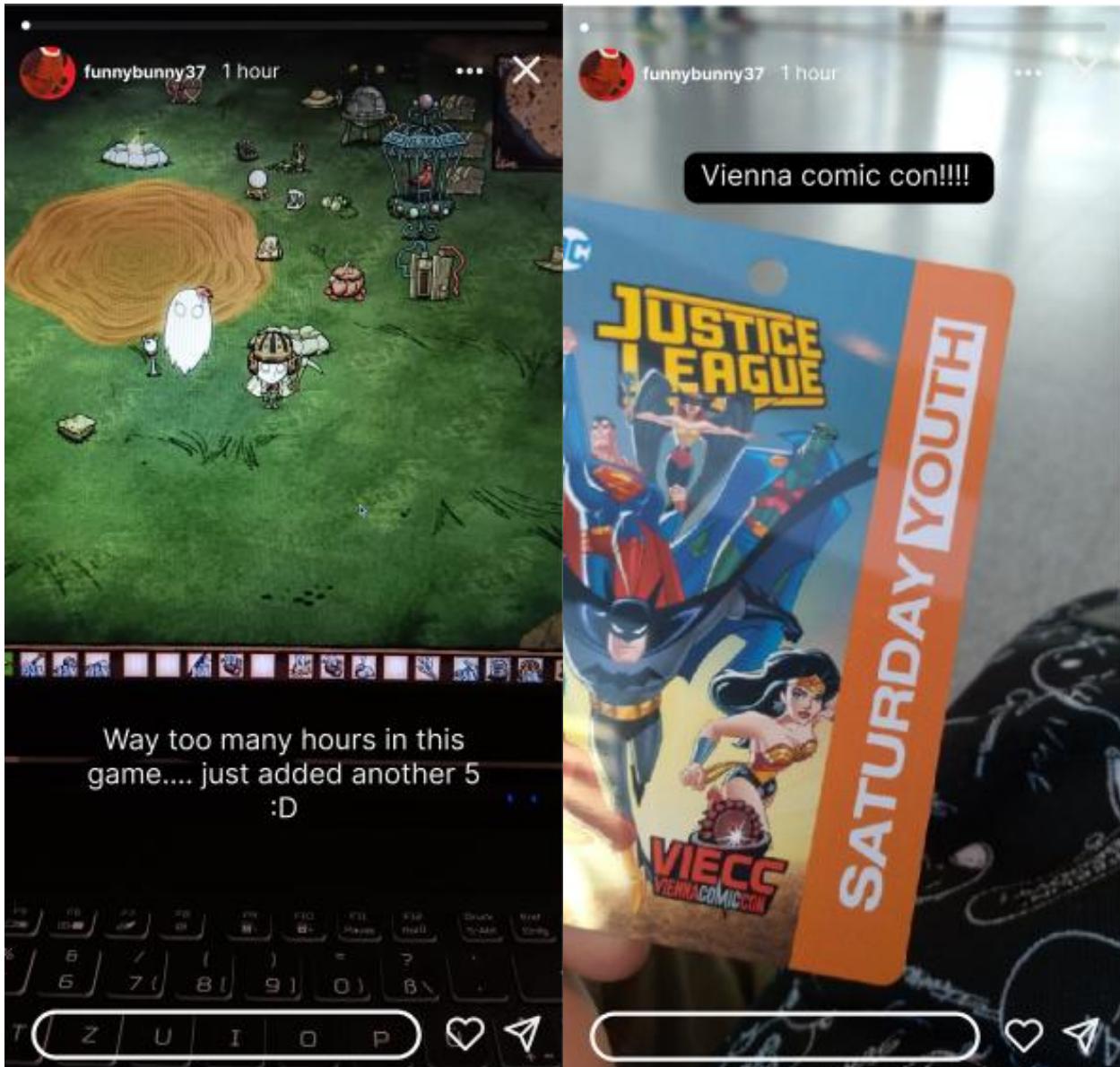
During the Study:
- Preparing the session room - Alina & Benjamin; Hannah & Tamara
- Setting up the recording equipment – Alina & Benjamin; Hannah & Tamara
- Moderation of focus groups – Alina & Benjamin; Hannah & Tamara

After the Study:
- Preprocessing - Benjamin
- Transcriptions of focus group sessions - Alina & Benjamin; Hannah & Tamara
- Thematic Coding - Alina & Benjamin; Hannah & Tamara
- Data analysis - Hannah & Benjamin
- Preparation of the study report – Hannah & Benjamin

9) Appendix

Social Media Story Pictures:

funnybunny37 · 1 hour

funnybunny37 · 1 hour

vegan braided easter
bread with homemade
sourdough starter and
homemade soy milk <3

funnybunny37 · 1 hour

5:35

New PR today!!

funnybunny37 · 1 hour

9:02

🥹

funnybunny37 1 hour

Distanz
58,48 km

Höhenmeter
520 m

Zeit
2h 44min

STRAVA

Prototype Components:
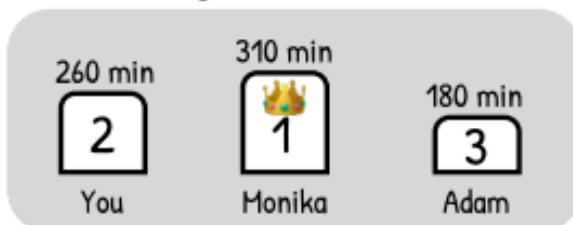
Currently Active
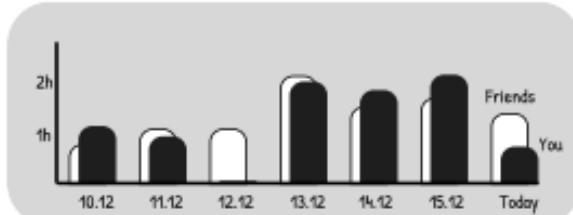
History

Sophia
spent 1h on their hobby
6 min ago

Franz
spent 1,5h on their hobby
25 min ago

Friends Challenge: DIY

260 min
2
You

310 min
👑
1
Monika

180 min
3
Adam

Hobby stats

Feed

Anna
1 h ago
⏱ 2 hours
📖 reading books

Last chapter let's goooo!!!

♡ 7 💬 1

Chris
3 h ago
⏱ 30 minutes
🍲 cooking

Quick pasta before I leave 🤓

♡ 2 💬 5

.... (your idea)