How to build social computers Seminar

- Presentation 1 -

Social Anxiety Trainer

Students: Jessie Hegemann
Swathi Krishnaraja
Annika Kremer
Anna Krasilnikova
Melinda Kapitola
Timo Gühring

October, 2018
What is Social Anxiety?

Social anxiety disorder (also known as social phobia) is defined by the core feature of excessive fear of embarrassment, which is often accompanied by avoidance of social or public situations (Schneider, Blanco, Antia & Liebowitz, 2002).
The need of a Social Anxiety Trainer

- Prevalence rate 13-14%
- Challenge yourself
- Improves all parts of your life
- Gives you motivation
- Easily accessible
What are treatments for Social Anxiety in a clinical context?

- Exposure
- Cognitive Restructuring
- Relaxation Training
- Social Skills Training
The Idea: Social Anxiety Trainer

**Target group:** Adults with mild levels of social anxiety

**Goal:** Decreasing level of social anxiety

**General idea:**

1. Based on the level and categories of his/her social anxiety, the app picks a task
2. Monitoring voice and heart rate during the task
3. Interaction with the community and feedback
The Idea: Social Anxiety Trainer

Workflow:

1. Initial questionnaire
2. Tutorial
3. A task with an adequate level of difficulty will be selected
4. User performs the task
5. The mobile app monitors voice and heart rate
6. After the task the user should rank the comfortableness of the challenge
7. Feedback
The Workflow: Social Anxiety Trainer App

1. Initial Questionnaire
2. Analyzes the user's anxiety levels under various categories
3. Give access to the community

- Category 1
  - Tasks
  - Levels of difficulty: [Low, Medium, High]

- Category 2
  - Tasks

- Category 3
  - Tasks

4. Provide Statistical analysis based on his performance
### The Workflow: Social Anxiety Trainer App

<table>
<thead>
<tr>
<th>Structured Questionnaire</th>
<th>Allocate tasks to users</th>
<th>Provide feedback</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Questions will be structured based on various social anxiety categories</td>
<td>- Based on appropriate difficulty level of the user under each category</td>
<td>- Heart rate and voice data will be monitored</td>
</tr>
<tr>
<td>- Each question will evaluate how good the user is under a particular category</td>
<td>- Each task - Option A/B can be chosen</td>
<td>- Statistical data analysis results are displayed to the user</td>
</tr>
<tr>
<td>- Classify the difficulty level based on users responses</td>
<td>- Gradually difficulty of the task increases</td>
<td>- Motivational and constructive feedback</td>
</tr>
</tbody>
</table>
Categories

**Interactional**

- Meeting new people
- Talking to strangers
- Going on dates
- Asserting oneself

→ Call your doctor and make an appointment
→ Talk to a stranger and ask them for a favor

**Performance based**

- Test anxiety
- Public speaking
- Going to work or school
- Sports performance

→ Present a topic you like in front of two friends
→ Solve a task and stop the time
Categories

- Using public restrooms → Wash your hands in a public restroom
- Eating in front of other people → Eat lunch in the cafeteria
- Being watched while doing something
- Being the center of attention
- Shopping
Community

- General community → access from the start
- User can decide if it is anonymous or not
- Exchange experiences and achievements
- Rewards
The Idea: Social Anxiety Trainer

Technology Setup

- Android mobile app
- Microphone support
- Emotional recognition for voice streams (audEERING)
- Smartwatch support for heart rate
- IDE: Android Studio
The Idea: Social Anxiety Trainer

Related Work


  The challenger app for social anxiety disorder: New advances in mobile psychological treatment

  *Internet Interventions 2 (2015) 382-391*

  - Developed at the Stockholm University Department of Psychology
  - Gamification
  - General approach (different skill categories)
  - Activity Tracking (Location), but no monitoring of voice/ heart-rate
To-Do

- Add more/define more concrete categories/challenges
- Divide categories and challenges into different difficulty levels
- Create the initial questionnaire based on the categories and difficulty levels
- Building a forum/community
- Provide Statistical Analysis and Feedback: how to implement positive reinforcement
Thank you!
References


References
