

# How to build social computers Seminar

- Presentation 1 -  
Social Anxiety Trainer

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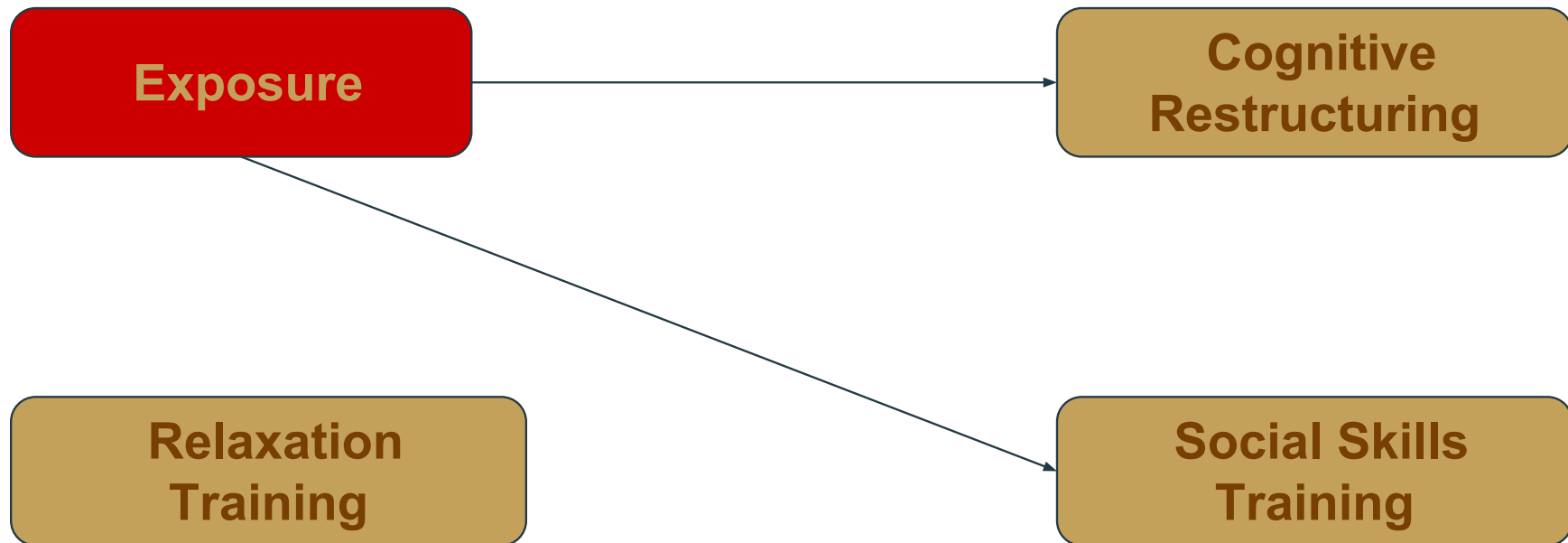
# What is Social Anxiety?

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).

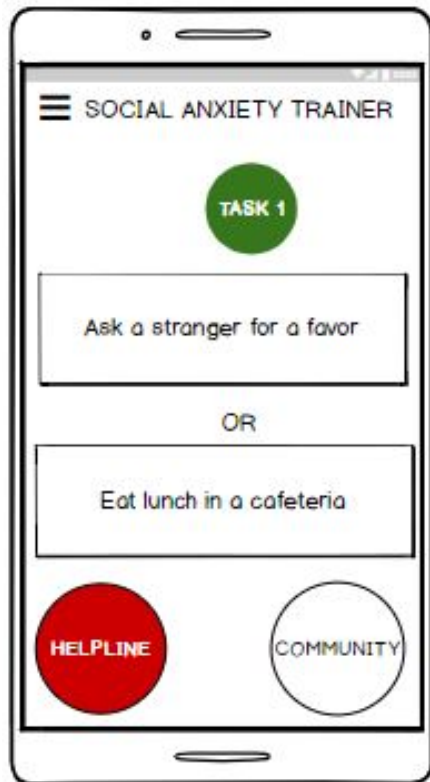
# The need of a Social Anxiety Trainer

- 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?



# 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

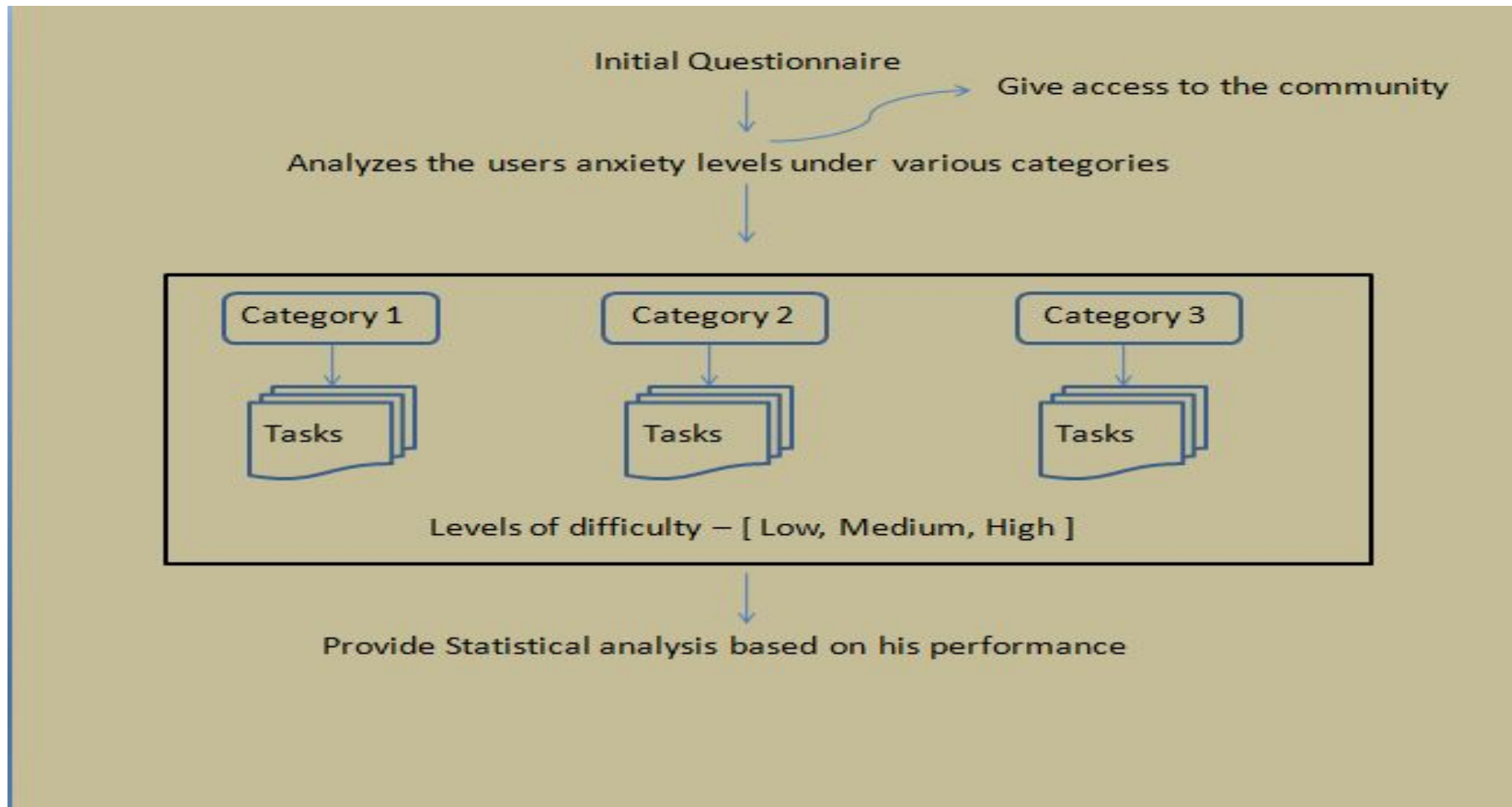
# The Idea: Social Anxiety Trainer



## 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



# The Workflow : Social Anxiety Trainer App

## Structured Questionnaire

- Questions will be structured based on various social anxiety categories
- Each question will evaluate how good the user is under a particular category
- Classify the difficulty level based on users responses

## Allocate tasks to users

- Based on appropriate difficulty level of the user under each category
- Each task - Option A /B can be chosen
- Gradually difficulty of the task increases

## Provide feedback

- Heart rate and voice data will be monitored
- Statistical data analysis results are displayed to the user
- Motivational and constructive feedback



# 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

## Indirect social situations

- Using public restrooms
- Eating in front of other people
- Being watched while doing something
- Being the center of attention
- Shopping

→ Wash your hands in a public restroom

→ Eat lunch in the cafeteria

# 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



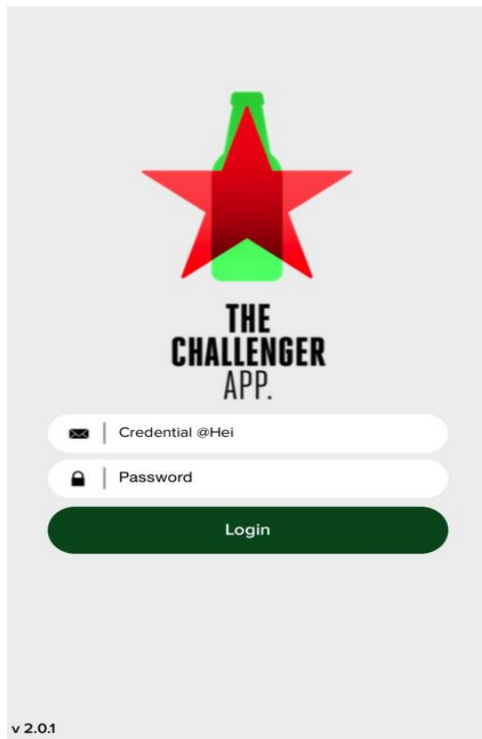
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## Technology Setup

- 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

- Miloff A., Marklund A., Carlbring P., 2015.

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

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