

first term

SOPHIE BUNGE, 12.05.2025

structure

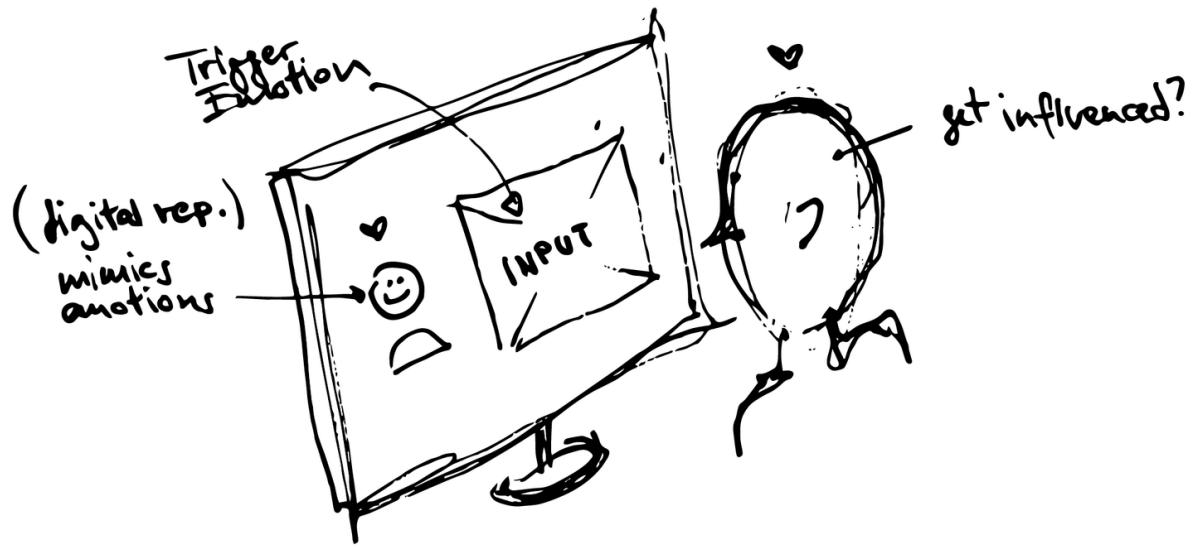
- 01 initial idea
- 02 approach
- 03 motivation & own purpose
- 04 reflection
- 05 Conclusion and thoughts

initial idea

concept

How does the visual representation of emotions strengthen the relationship between users and their digital representations?

What is the digital world doing to us? I want to explore a new case/scenario on how much emotionally intelligent chatbots, characters, and avatars can influence us.



approach

TECHNICAL & ORGANISATIONAL

detect emotions

- University's EEG device
- TouchDesigner facial emotion recognition
- Python's libraries (DeepFace, FER)



The screenshot shows the project page for 'deepface 0.0.24' on Python Package Index (PyPI). The page includes a brief description, navigation links for 'Projekt Beschreibung' and 'Downloads', verified details, and a logo featuring a stylized face icon with the text 'deepFace' below it. The PyPI interface also shows the package was last updated on May 21, 2020.

deepface 0.0.24

pip install deepface==0.0.24

Veröffentlicht: 21. Mai 2020

Deep Face Analysis Framework for Face Recognition and Demography

Navigation

- Projekt Beschreibung
- Veröffentlichungs-Historie
- Dateien zum Herunterladen

Verifizierte Details

Betreuer

svenigl

Unbestätigte Details

Projekt Links

Mehr

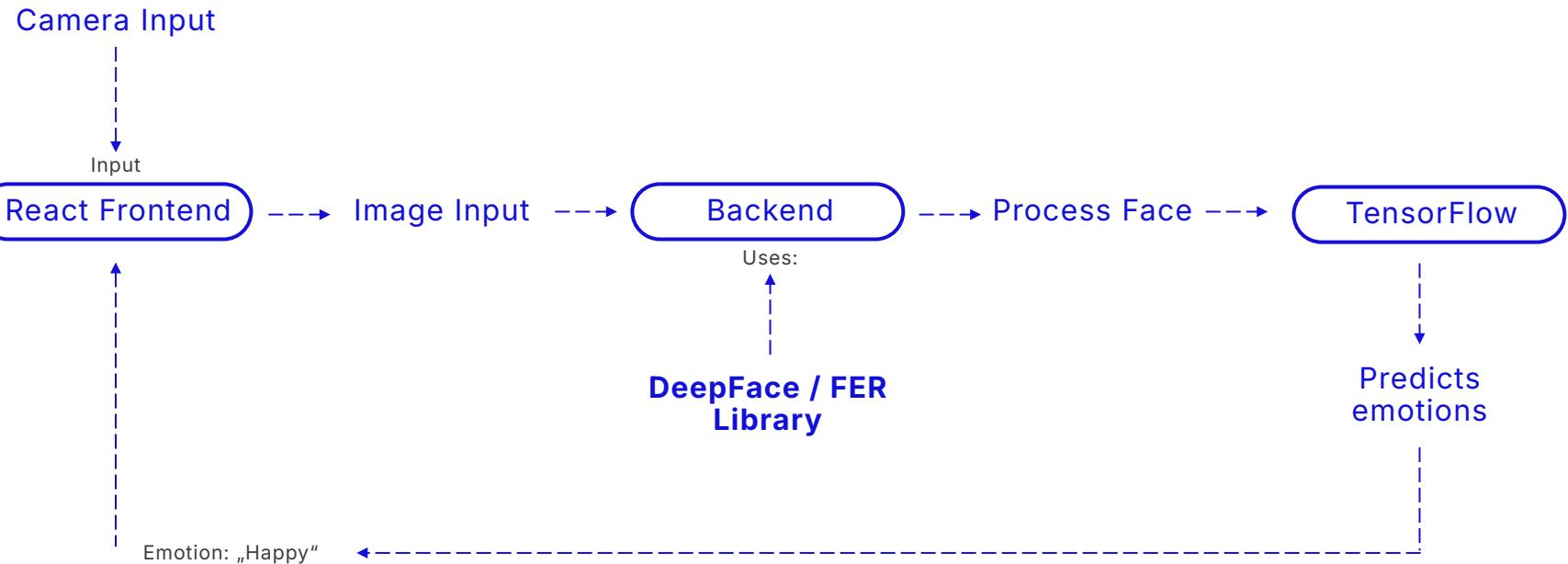
- Lizenzen: MIT License
- Autor: Svenigl (Svenigl)
- Benötigt: Python>=3.5

Installation

The easiest way to install deepface is to download it from [here](#).

pip install deepface

detect emotions



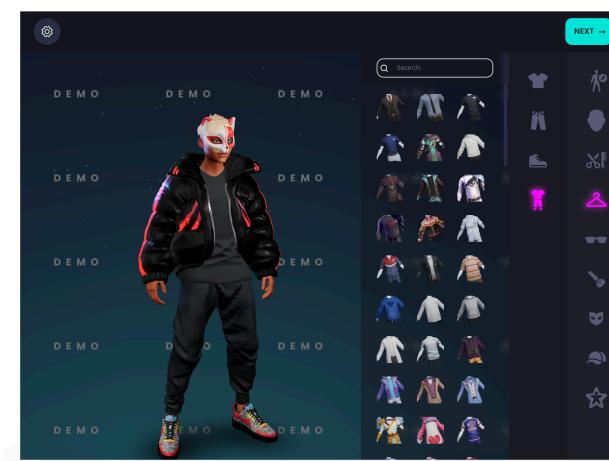
digital „self“ portrait

- Ready player me

Avatar URL: <https://models.readyplayer.me/681cdb83eb427a0b72be11be.glb>



Avatar URL: <https://models.readyplayer.me/681cdb83eb427a0b72be11be.glb>



visualize emotions

- glTF Viewer



```
three.js r120 buildShrugged.js & feedback.js github
```

```
frontend > src > JS emotionMapping.js > emotionMapping > neutral
1 // Happy, Neutral, Surprise, Sad, Angry, Fear, Disgust
2
3 export const emotionMapping = {
4   happy: {
5     mouthOpen: 0.31,
6     mouthSmile: 0.83,
7     browInnerUp: 0.45,
8     browOuterUpLeft: 0.47,
9     browOuterUpRight: 0.47,
10    eyeSquintRight: 0.18,
11    eyeSquintLeft: 0.18,
12  },
13  neutral: {
14    mouthOpen: 0,
15    mouthSmile: 0,
16    browInnerUp: 0,
17    browOuterUpLeft: 0,
18    browOuterUpRight: 0,
19    eyeSquintRight: 0,
20    eyeSquintLeft: 0,
21  },
22  sad: {
23    browInnerUp: 0.67,
24    eyeSquintLeft: 1,
25    eyeSquintRight: 1,
26    mouthFrownLeft: 1,
27    mouthFrownRight: 1,
28    mouthShrugLower: 0.34,
29    eyesLookDown: 0.41,
30  },
31  angry: {
```

avatar + emotion recognition



Emotion: happy

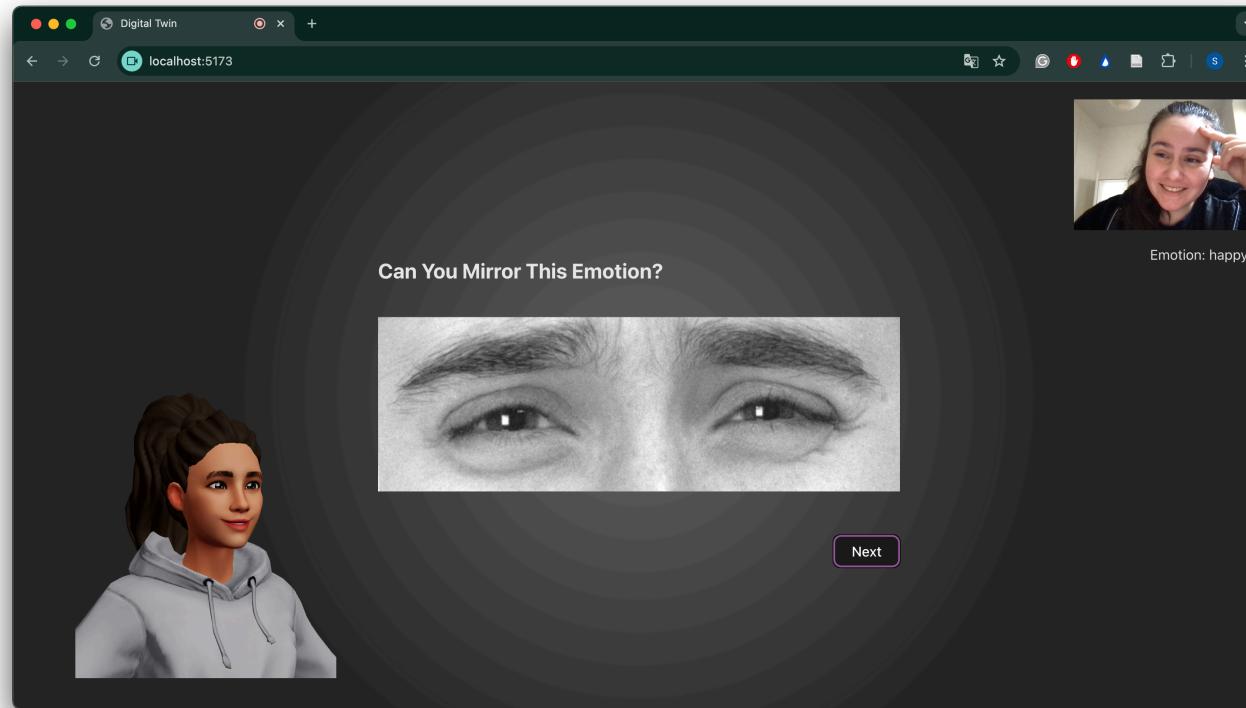


the test



Ekman, P. and Friesen, W.V. (1976). *Pictures of facial affect*. Palo Alto, California: Consulting Psychologists Press

results



purpose & motivation

WHAT WAS MY GOAL?

reflection

technical decisions

- find the ones with good documentations/tutorials
- '*make it work fast*' to '*understand why it works*'
- knowing when to end

case scenarios

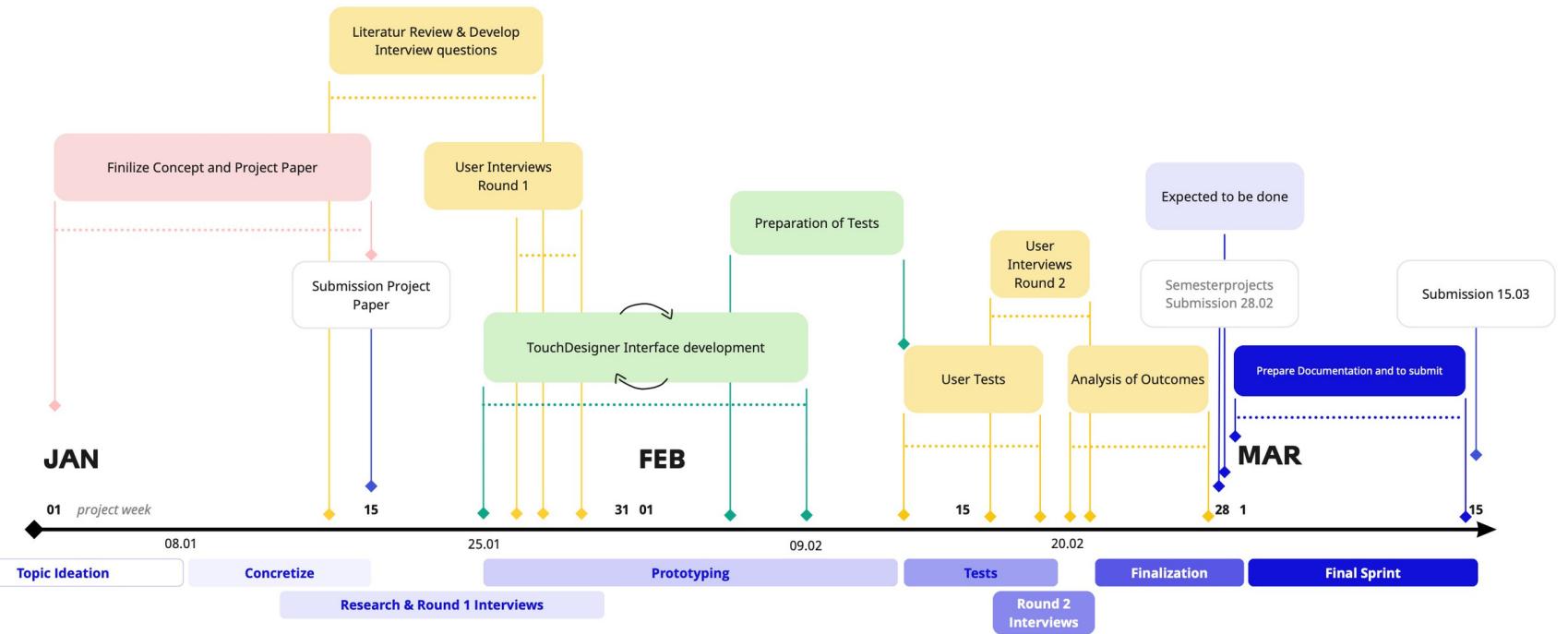
minimum viable product

- emotion recognition
- learning journey
- first layout of the interface
- ...which also works!

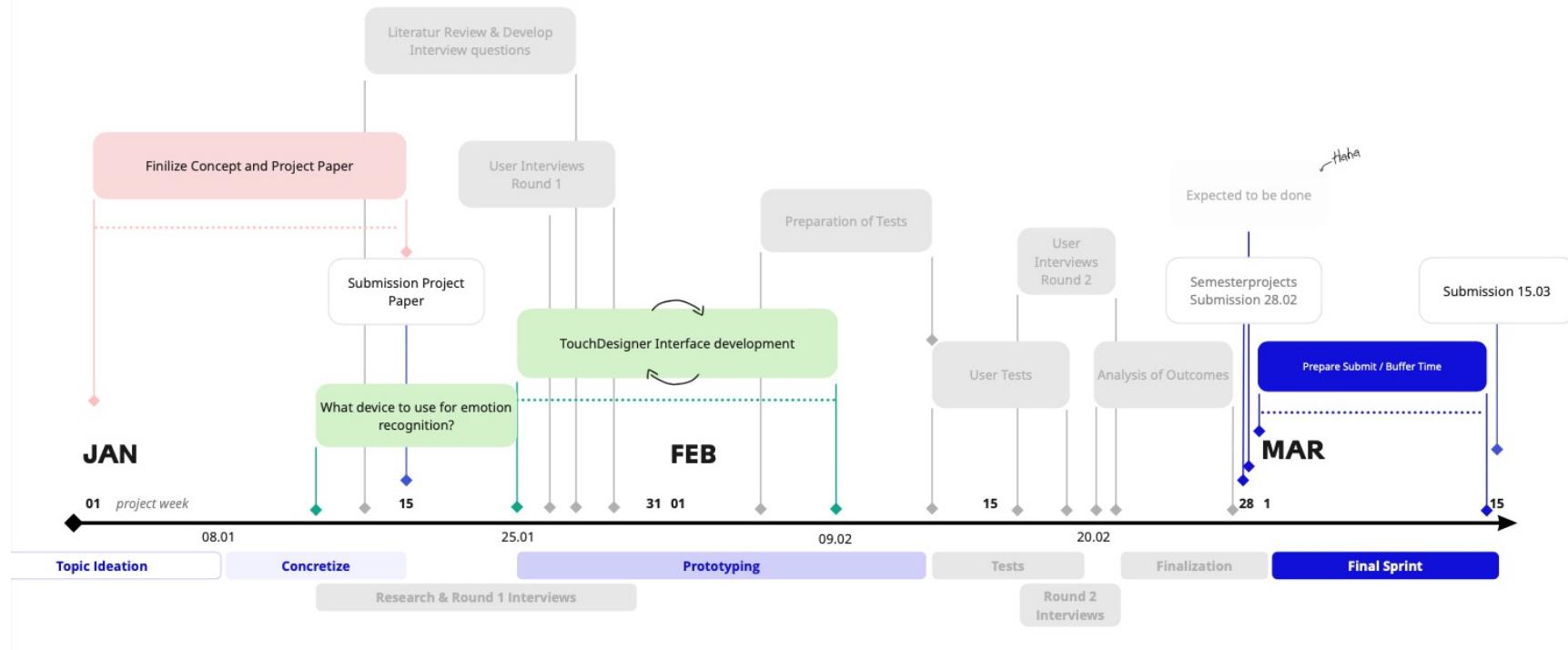
best case scenario

- *user Interviews*
- *data collection of the test*
- *development and analysis of the experiment*

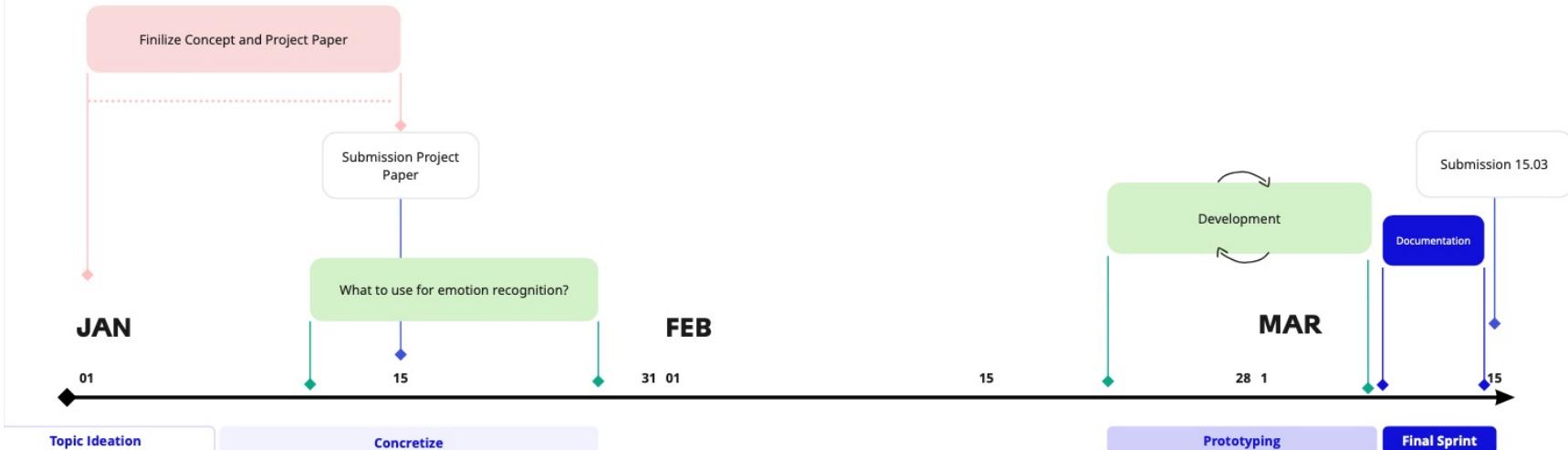
timeline



let's face reality



let's face reality



conclusion & thoughts