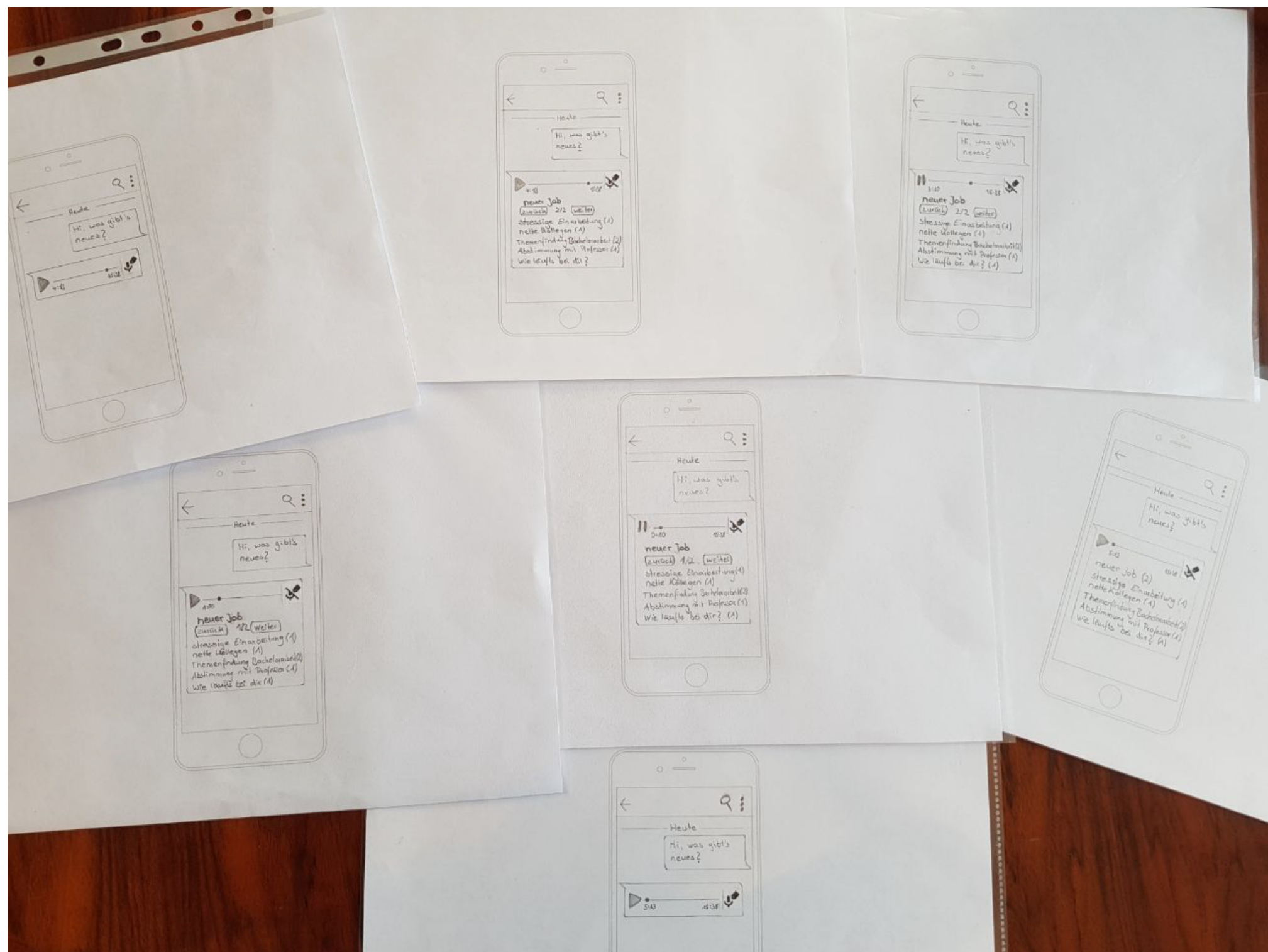


Concept for Improving the Voice Message Function in Messengers



Paper Prototype Usertest

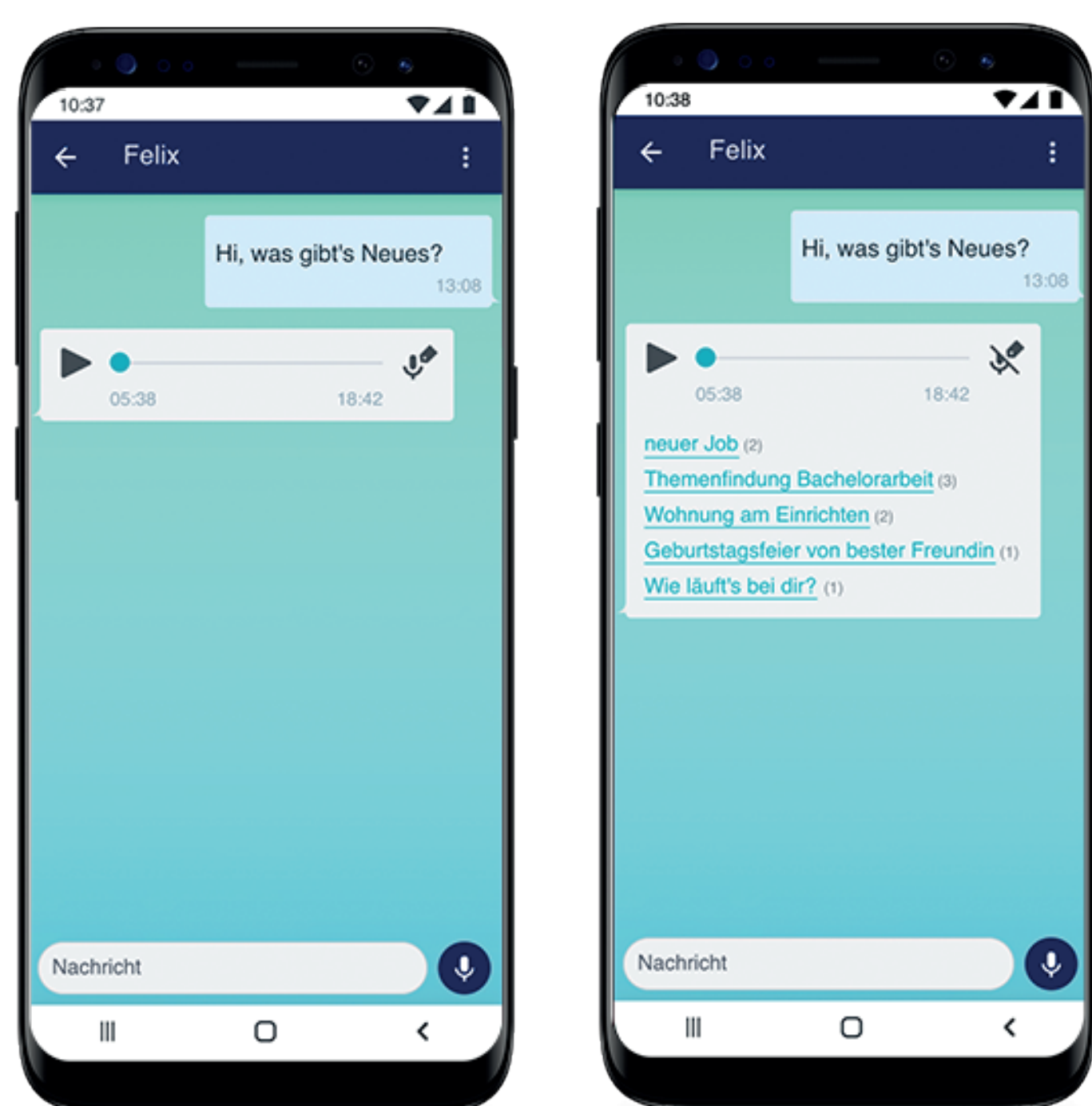
Special Focus

In this master thesis, the Lean UX approach has been followed. This involved going through the Lean UX cycle in problem identification and solution development.

In order to find a solution to the problems, users were asked about the difficulties they encountered when listening to voice messages. In cooperation with the users, possible solutions were discussed and weighted according to the number of mentions and the number of problems to be solved. The prioritized idea was to tag a voice message. The keywords should appear underneath the message and link to the individual message points. This allows targeted content to be played.

To validate this idea, it was set up in the form of a prototype as a minimal valuable product and tested on users. In these tests, the methods of survey, usability tests and retrospective were applied.

From the results obtained, the concept was further developed and the cycle was repeated. Thus, the solution was adapted step by step to the user requirements. Throughout the process, the focus has always been on the users and their user experience.



ProtoPie High-Fidelity-Prototype

Abstract

More and more users of messengers prefer the voice message function to cumbersome typing and the classic phone call. However, many recipients complain about receiving long and unstructured voice recordings. Therefore, using the Lean UX approach, this master thesis deals with defining the users' problems and developing a concept for improving the voice messaging feature in messengers through an iterative process.

To achieve this goal, a concept was developed in the form of prototypes in various degrees of detail and continuously refined through user-oriented methods by means of surveys and user tests. The design and validation of the prototypes are the main focus of this master thesis. The following two questions were focused on throughout the process:

1. Are there any problems listening to voice messages? If so, what are the main problems?
2. Which concept can eliminate the most frequently occurring problems for the recipient of voice messages, while ensuring a good user experience at the same time?

The results of the evaluated tests show that it is possible to improve the voice messaging feature using Artificial Intelligence (AI) to eliminate most of the problems and ensure a good UX. This creates a new field of application for AI, which facilitates daily use for humans.

EMMA

Freuden

- Persönliche Kommunikation mit Freunden, die weiter weg wohnen
- Flexibles Abhören von Sprachnachrichten

Frustrationen

- Sprachnachrichten, die länger als 5 Minuten dauern
- Langes Tippen einer Nachricht

Bio

Emma ist gerne mit ihren Freunden unterwegs. Um Treffen zu vereinbaren oder auch von ihrem Alltag zu erzählen, verschickt sie täglich Sprachnachrichten an ihre Familie und Freunde. Sie verschickt lieber Sprachnachrichten als Textnachrichten, da das viel schneller geht und Missverständnisse somit vermieden werden.

Persönlichkeit

Introvertiert Extravertiert

Denken Fühlen

Vernunft Intuition

Passiv Aktiv

Social Media

[f](#) [ig](#) [yt](#) [p](#) [t](#) [w](#) [m](#)

Motivation für die Nutzung

Schnelligkeit

Komfort

Persönliche Kommunikation

Verständlichkeit

Technologie

IT & Internet

Mobile Apps

Soziale Netzwerke

Primary Persona Emma

Result and Future Work

From the findings of the user tests it could be determined that the developed concept would solve most of the identified problems and at the same time ensure a good user experience. A voice message would no longer need to be listened to in its entirety. It would also serve as a reminder function, as the keywords provide a good overview of the topics addressed. This would presumably also solve the problem of not having to compose the reply while listening.

The next steps would be, firstly, to set up the prototype using AI and machine learning to learn the spontaneous speech in the voice recordings. To this, it would be necessary to set up an algorithm so that the AI can be properly taught to recognize the individual content sections and convert them into keywords with the appropriate linking.

Secondly, the programmed prototype should be further developed by user tests and it should be checked whether the problems from the user survey could be solved during the application. This requires integrating the keywording feature into an existing messenger and applying it to real voice messages. This presents a particular difficulty for the AI. It needs to be trained on dialects, language usages and broken sentences.



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