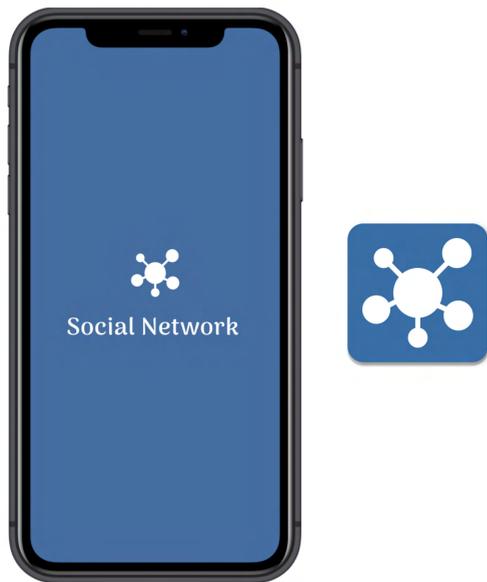


App Concept with a Flexible UI



App concept: A professional social media app called Social Network

Abstract

This research aims to explore the possibility of designing a Flexible UI on a professional social media app for various hand grip types. The study strategically positioned essential user interface elements within optimal reachable areas, considering pain points associated with three different hand grip types which are Asymmetric Bimanual Thumb, Single-handed and Symmetric Bimanual. These placements were incorporated into three different versions of the app:

- Version A presented the familiar structure of existing social media apps and served as the baseline for comparison.
- Version B showcased the Flexible UI, designed specifically to address users' reachability pain points.
- Version C also showcased Flexible UI by introducing new possible solutions for the concept.

These versions were evaluated in comparative user study and the hypotheses formulated based on scientific papers were tested through users' interactions with minimum viable products (MVPs). The research followed the Lean UX Method, which involved iterative testing of the MVPs to gather feedback and insights. The conclusions drawn from this research can be valuable for UX/UI designers and mobile developers for creating effective user interfaces that align with users' preferences and enhance their interaction with smartphones.

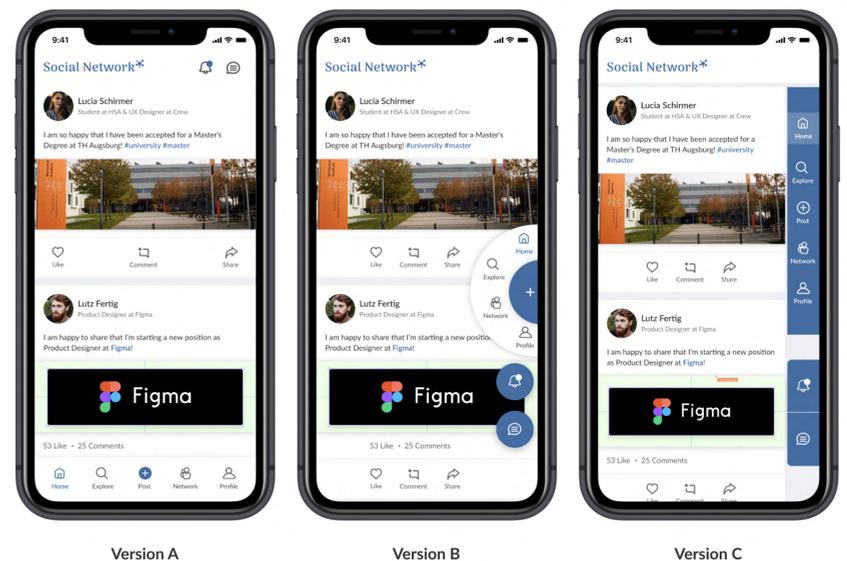
Special Focus

The focus of the research aimed to cover various aspects, including identifying the pain points associated with tested hand grips, evaluating the potential usability of the Flexible UI in users' daily lives, and exploring the possibility of creating an Optimal UI that caters to multiple hand grips simultaneously.

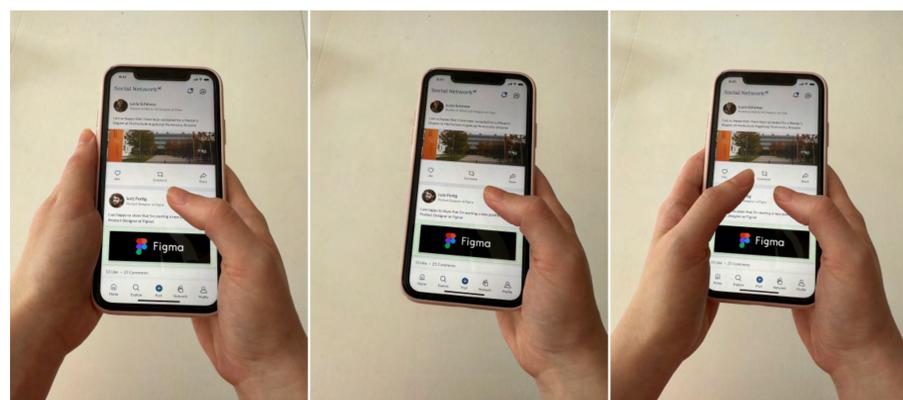
To address these special focuses, a comparative user study was conducted using different versions of the app. Participants were presented with multiple versions and their experiences were observed while performing specific tasks.

The first user test compared Version A and Version B, specifically focusing on the Asymmetric bimanual thumb and Single-handed grips. This study included 6 participants, comprising working professionals and students.

In the second user test, Version A, Version B, and Version C were compared, considering hand grips such as Single-handed and Symmetric bimanual. This user test, which involved 10 participants consisting again of working professionals and students, aimed to finalise the research and obtain more comprehensive results.



Three different versions of the app: Version A, Version B, and Version C all display the homepage



Asymmetric Bimanual Thumb Single-handed Symmetric Bimanual

Examined hand grip types in the research: Asymmetric Bimanual Thumb, Single-handed, Symmetric Bimanual

Result and Future Work

The research revealed that users prefer hand grips that feel natural and align with their daily habits. For instance, users who are accustomed to using their fingers or both thumbs when operating a phone with two hands tend to dislike hand grips that involve an Asymmetric bimanual thumb grip, which only includes the thumb of the active hand. Users also expressed discomfort when they have to adjust or reposition their hands to access specific screen elements, such as with the Single-handed grip. Results also demonstrated that the Flexible UI effectively provided an improved experience, only for the Single-handed grip type. Users expressed a preference for having essential elements and actions positioned conveniently next to their thumb, perceiving this arrangement as an enhancement to their experience. The research also highlighted the Flexible UI's potential for adoption in daily life, as it requires minimal learning effort and facilitates a rapid adaptation period. The evaluation concluded that there is indeed potential for designing an Optimal UI for the Single-handed grip by placing the necessary elements within the reachable area of users by incorporating familiar structures, components, or views that users are already accustomed to.

The research findings also presented several aspects for potential improvements and future exploration. One notable area that requires attention is the inclusivity of left-handed users. Currently, the discussed solutions in the Flexible UI mainly cater to right-handed individuals, with essential elements and actions conveniently positioned near the right hand's thumb.



Hochschule
Augsburg University of
Applied Sciences

Contact

enisesahan@gmail.com

Supervisor

Prof. KP Ludwig John

