Brent George
EECS 593 - Fal 2022

Assignment 3 Individual: Interactive System Design and Prototyping

Design

My low-fidelity prototype design involves an embedded software tool in the keyboard of a mobile device. This software tool would read text on the screen and determine the emotional tone of the text. This text could be an incoming message, a blog post, or even the draft of an outgoing message. The tool would then choose a combination of emojis that matches the emotional tone and display them on the screen. This meets the user requirements to provide supplementary information about the emotional context of a conversation beyond the content itself, as well as provide immediate feedback on the emotional tone of messages as they are drafted.

This tool could be present in multiple digital scenarios as seen in the sketch below. Multiple individuals have cell phones with ongoing text conversations. The conversations could be informed by this digital tool, especially with the individual that is distracted by a video game. The distracted individual may not put as much mental effort into ascertaining the tone of a conversation, which could lead to a misunderstanding. The key to the sketch is that digital interactions are always present, and the need to emotionally evaluate these digital interactions is also always present.

Additionally, this tool would have pre-identified "negative" emojis, like an angry face or disgusted face or uncertain face. If any of these emojis are present, it is a charged situation. Additionally, if the emojis chosen are conflicting, like a happy face and a sad face, this might mean the text may be difficult to understand. In this case, the tool would suggest that the user attach rich content (photo, emoji, GIF) to any drafted message. This meets the user requirements that users need additional mediums to enhance the textual content of a message in order to deliver their intent properly.

The storyboard shows one situation where the following persona, Alex, is in a context where is not immediately reading the correct emotional tone of a conversation. The tool displays mixed emojis, including a negative one, next to the text message. This helps Alex reassess the situation and craft a more emotionally aware response, which deescalates a potentially thorny situation. The tool in this case did not force Alex to make any choices, but met the user requirements to help him participate in this digital interaction in a more emotionally informed way.
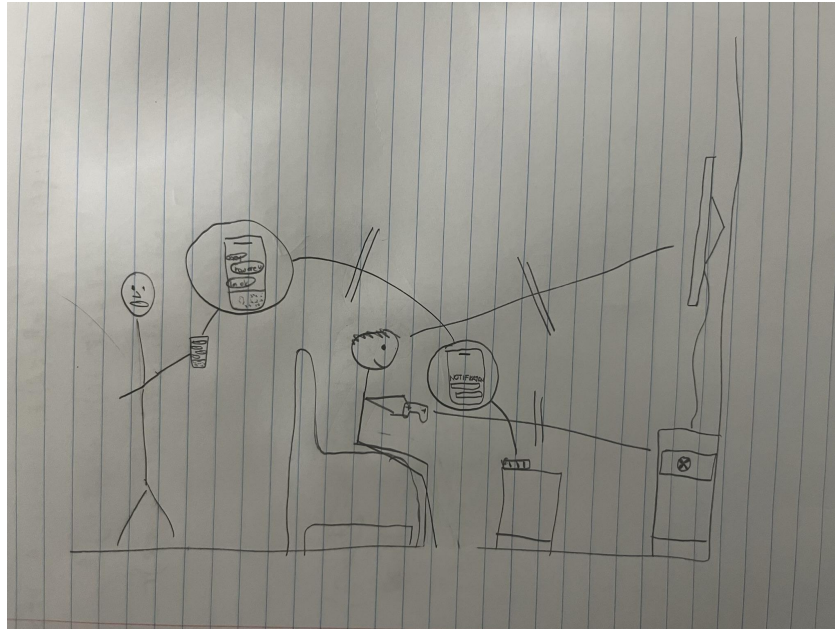
Persona

Alex is an undergraduate university student who has a dynamic, diverse friend group. He values having friends of different backgrounds and sees himself as a good friend who lifts others up and doesn't hurt their feelings. He likes to have fun too, though, and doesn't see himself as "stuck up" or unable to enjoy a good joke. He is constantly online for both school and his social life.

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Alex looked forward to attending college in part because of the social life, and that expectation has largely been fulfilled. He is part of a college fraternity, which helps provide lots of roommates who are close friends to hang out with. Most of his interactions with these individuals are in person, but he also interacts with them using voice on XBox Live when they play video games together, and they also text each other regularly. Since he lives with these friends, most of these texts are for coordination or information, not necessarily to have deep, important conversations. He can have those conversations face to face with them, which makes things easier for everyone. Alex has an iPhone, and so do most of his frat brothers. When multiple friends have a group text message, they will make fun of anyone who has an Android and can't be included in an iMessage - sometimes even purposely leaving out Android users from the group chat to be able to have an iMessage group chat.

He also is friends with people in his major who have shared several classes together. There is a group of about 6-8 people who have had several classes together now, and they often meet to collaborate on homework or to study. They use a group chat to informally discuss meeting up, or to talk about non-school related events. The group chat doesn't have very many collaboration features, though, so they use Discord for anything actually related to school, like sharing files. They almost never use email, since email chains with multiple people are really hard to search and find messages from the past, and attachments can get lost. Sometimes people will step on each other's feet - everyone in this study group comes from a unique background, with only their college major to tie them together. It's led to some misunderstandings and grudges, which usually just get swept under the rug, but sometimes are addressed. If two people are upset with each other, sometimes the other members of the group will arrange a discussion for them to resolve their differences.

Alex has a few friends from back home that went to other universities, or didn't go to college, and he tries to keep in touch with them. Since he doesn't ever see them in person, they will text about once a month to catch up on things. It usually just consists of talking about school, sports, and girls. He isn't as close to his friends from back home. The way he texts his friends from back home doesn't seem to be enough to maintain close relationships over time.

Sketch

Storyboard

Alex was relaxing when he got a text from a friend back home.

8:22

A quick glance shows it is from Jill - his old girlfriend...

...they broke up when Alex left for college, but are still close friends...

3:14

Messages
Jill (Ex Girlfriend)
...

Jill is mad...

Message
Hey, Alex, I saw a lot of new friends, girls, in your Instagram story!

Alex has no idea

Luckily, emojis were automatically inserted next to the message showing the tone...

Message
Hey, Alex, I saw a lot of new friends, girls, in your Instagram story!

...which made Alex realize this situation is complex

Alex responds carefully...

Message
Yea - but I miss hanging out with you Jill

And a potentially explosive situation is defused!