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EECS 593 HCI
October 25, 2022

Assignment 3 (Individual): Interactive System Design and Prototyping

Design

This initial design is built for smartphones, but it should be relatively easy to extend it to PC. According to the user requirements, the users wanted immediate feedback while typing and easy access to online resources without switching apps. Initially, I thought about mapping color codes to different tones/emotions, and while typing this color will be applied to the text. But this design is not friendly to color-blind people. So the tone/emotion indicator switched from color to emoji (refer to the sketch and storyboard #4). The emoji appears when the user stops typing for 5 seconds. The emoji gives users intuitive feedback on tone/emotion, and the user could make adjustments if needed. To access more online resources, the users could simply click on the emoji, and a small window will pop up with information like famous quotes, sayings, and even memes, related to the detected tone. This information allows users to verify the tone/emotion again in addition to the emoji, and make a better refinement to the messages (refer to the storyboard, #5). Additionally, the users also want easy access to online resources that are relevant to certain subjects, like politics, a movie, a celebrity, historical events, etc. A lightbulb appears when certain subjects are detected. A list of sorted links with their summary appears in the pop-up window, allowing users to quickly browse through, or add them to their messages as references (refer to storyboard #6).

Personas



Daksh Patel
23
Graduate Student
University of Michigan
Ann Arbor, MI

Main Devices

- Windows laptop
- Android smartphone
- Desktops from the university library

Bio
Daksh is a highly motivated student; passionate about mathematics and computer science. He is still trying to figure out if he should pursue a PhD or not. Meanwhile, he tries to work on more diverse research projects, which keeps him continually learning and discovering. Because of that, he sends out a lot of emails daily, communicating with teammates and professors. Daksh works hard in classes too, he constantly getting the highest grades in homework and exam, which makes him very popular in classes. He received many messages everyday, and he tries to reply to all of them politely through his smartphone.

Background and Needs
Daksh is a first-year master's student at the University of Michigan, studying computer science. He was born in the United States, moved back to India at the age of 5, and finished his undergraduate study back in India. He is a native Hindi speaker, and he speaks very good English as well. Although he doesn't post on social media very often, he messages his friends through WhatsApp all the time. And he also receives many messages from classmates asking homework questions. Daksh is very confident about his writing and doesn't use any text assistance software like Grammarly, but he does pay extra attention to the tone of his messages, especially when sending emotionally charged messages; apologize to someone through text for example. Depending on the context, he relies on external resources to further refine a message. He loves sharing relevant links and famous quotes that fit the context of the conversation. But looking for this information and making sure they are reliable can be time-consuming. If there is a feature in the messaging app that can provide a list of snippets of online resources that are ranked by relevance, can shrink down the browsing time.

Media Platforms

- WhatsApp
- Android message app
- Discord
- Facebook
- Gmail
- Reddit



Sketches



Storyboard

