

Ruei-Che Chang
UM-ID: 50140166
Email: rueiche@umich.edu

Individual Design

The design was driven by the user requirements:

1. Users need supplementary information about the emotional context of a conversation beyond the content itself.
2. Users need immediate feedback on the emotional tone of their messages as they draft the messages.
3. After drafting a message, users need additional mediums to enhance the textual content of a message in order to deliver their intent properly.

The app plug-in has a grammar checker to examine the correctness of grammar and wordings. There is also a tone checker to check the tone used in the draft messages to provide more emotion context on the given messages. There is also a media gallery allowing users to choose their photo, audio, and videos to clarify and complement their textual expression. The tone checker and the grammar checker work in real-time for the user. So the user can get the immediate feedback based on the user requirements.



Persona

Monica, shown in Figure above, is a 25-year-old international graduate student majoring in computer science and engineering. Her culture is identified as Asian, and she is from China. Her research involves medical image processing and designing the user interface for medical workers to improve their daily job productivity. She liked to play video games and go shopping with her friends. She uses English only when posed in professional settings, such as meeting with her advisors, conducting research with participants, and attending formal academic events.

She regarded herself as an open-minded and outgoing person. She is confident to be talkative with every person and tries to interact with people to understand them. However, when talking to native English speakers, she usually felt cognitively demanding when talking for a long time as she needed to understand every sentence and used her body language to complement her

verbal expression. In terms of text chat, she felt more comfortable using Chinese with her friends as she knows many textual slang and jokes from Chinese culture and is less erroneous in sending wrong messages. In English, she uses it for professional settings mostly and social purposes, she feels more stressed when drafting emails or any messages to avoid wrong communication and misunderstanding.

The online communication tools she uses are her personal iPhone and Macbook Pro. For the app for chatting or texting, she typically uses WeChat and iPhone built-in message app. For the laptop applications, she uses Slack to communicate with labmates and folks at University, or she uses emails to communicate with people depending on others' preferences.

She is a subscriber of Grammarly to help her to correct grammar mistakes in real-time. If Grammarly fails to provide feedback or gives ambiguous suggestions, she turns to her friends to ask if they can have a look. She would first ask her Chinese friends to identify the errors and correct grammar as she believes some of her friends is better than her in English; if her friends do not understand how to help, she will turn to her US friends, but this could potentially pose another communication barrier between them. And that's why she would prioritize her Chinese friends as consultants. Especially, she would like to clarify the emotional context of a conversation in case she misunderstands the messages and respond wrongly back. She would also add emojis, images or other visual media to clarify her points if appropriate.

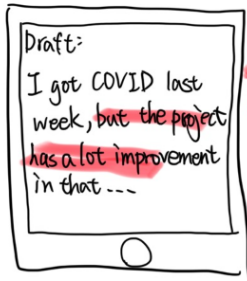
Sketch



Storyboard



1. Monica received the e-mail from her advisor asking her about the project progress and the clarification. But the tone is a little aggressive, Monica is unsure about how to interpret and respond this email.



Grammar
checker

2. Monica was making a draft by herself, and the grammar checker is working in the background to give suggestions.



Tone
Checker

3. The tone checker is also working in the background.



Media
Gallery

4. To add more context beyond the text, Monica decides to add some images to illustrate and show the progress on her project.



grammar
checker

Tone
Checker

Media
Gallery

5. The grammar checker and the tone checker then checked again to confirm everything is good to go.



Send
Successfully!

6. Monica then confidently pressed the button and sent the email.

