Introduction

There is a lot to be explored in the spectrum of awareness in remote communication platforms and applications.

For this project focuses on awareness: "by defining awareness as 'information' that is 'being gathered passively" (Dourish and Bly, 1992, p. 541).The information referred to is contextual information. "Dey and Abowd [12] define context as any information that can be used to characterise the situation of an entity, that is, another person, a place or an object that is relevant for interaction." (Personal Mobile Messaging in Context Chat Augmentations, p 2).

The awareness of the general context of a person whom one is talking to enables one to give more of an appropriate response to what is being communicated to them. However, the opportunity to passively gather this information when texting is not afforded to users.

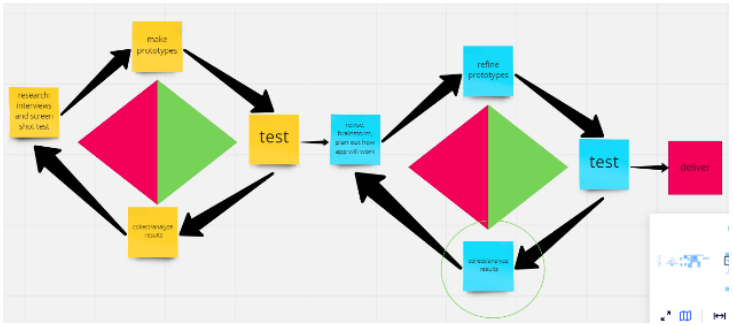
While conducting interviewers for research purposes, interviewees cited a lack of contextual awareness as reoccurring reason for miss communication during texting.

(Figure 1- A sketch of the problem. The one sender is an aware that the person they are messaging is jogging)

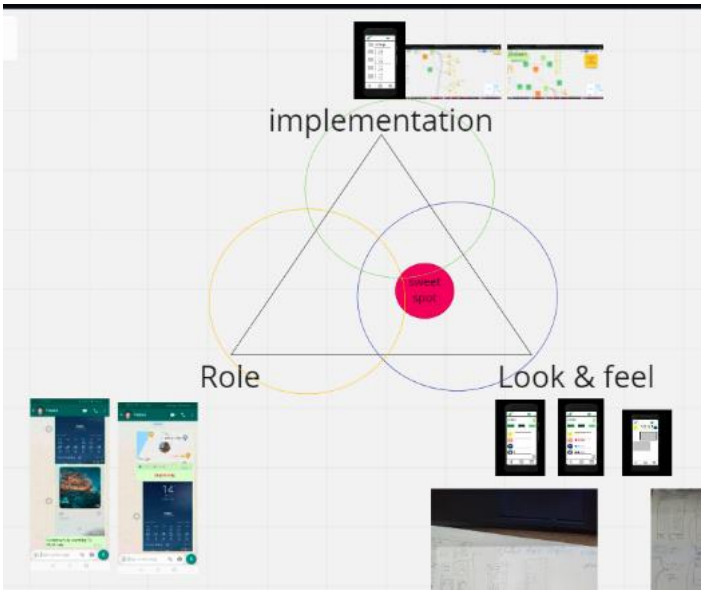
Con-text was designed to address this problem. Con-text is a messaging app that provides users with contextual information about the sender to the receipt.

Early insight from interviewees showed the while there are multiple contextual elements that are integral to understanding a text message, the four most common elements mentioned were: location, local time, weather, and mood.

This project is framed around the double diamonded design module. The double diamond is "divided into four distinct phases, Discover, Define, Develop and Deliver" (British design council).



(Figure 2- the double diamond model I used)



(Figure 3- Houde and Hills triangle model)

The problem Con-text is offering a solution to is, people communicating via text have a limited awareness of the other person's environment and general situation. It is because of this limited contextual awareness that the ability to emphasize with each other is limited. I asked myself: How might we enhance contextual awareness when texting, and enhance users' ability to empathize and understand each other.

Using Houde and Hill triangle module as guide I decided what my prototype would prototype. "We define the dimensions of the model as role, look, and feel; and implementation." Con-text as a prototype focuses look and feel. "Look and feel denotes questions about the concrete sensory experience of using an artefact". (Houde and hill, p3).

This pictorial will give insight into how Con-text was designed. Furthermore it is aimed at contributing to understanding awareness in the interaction design field, by outlining my process and results.

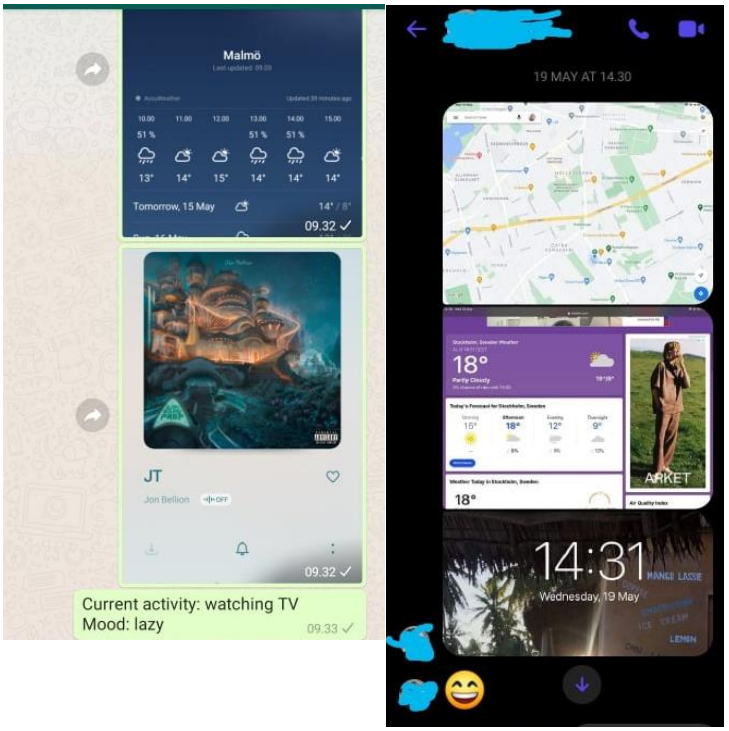
Understanding and interpretation

I interviewed prospective users, about their texting habits with a focus on how they interpret messages.

Interviewees at times would try and fill the context of a message by placing themselves in the shoes the sender to understand the message. Another tactic interviewees used to understand messages better is by asking the sender to elaborate, which can get annoying as it extended the dialogue.

Interviewees, identified that the location and mood are an influence on their texting practices. With one user saying that they are faster to respond when they are at home than when they are at the gym for example.

Interviewees then participated in a role prototype. Role refers to "questions about the function that an artefact serves in a user's life-the way in which is it useful to them. " (Houde and hill, p3). Participants and I used messaging apps to understand the role Con-text would have on users.



(Figure 4- Screen shots of the role prototype to test the implication of sharing and receiving context)

Participants sent me a screenshot of: their location, local time, weather, and an emoji that closest represented their mood. This exercise was to understand how participants felt about sharing such details that can be viewed as sensitive.

The repeated rhetoric from the role prototype was that participants were not comfortable sharing that information, particularly location. In addition, they preferred to have control over what message recipients saw, even "trusted receivers" such as family members.

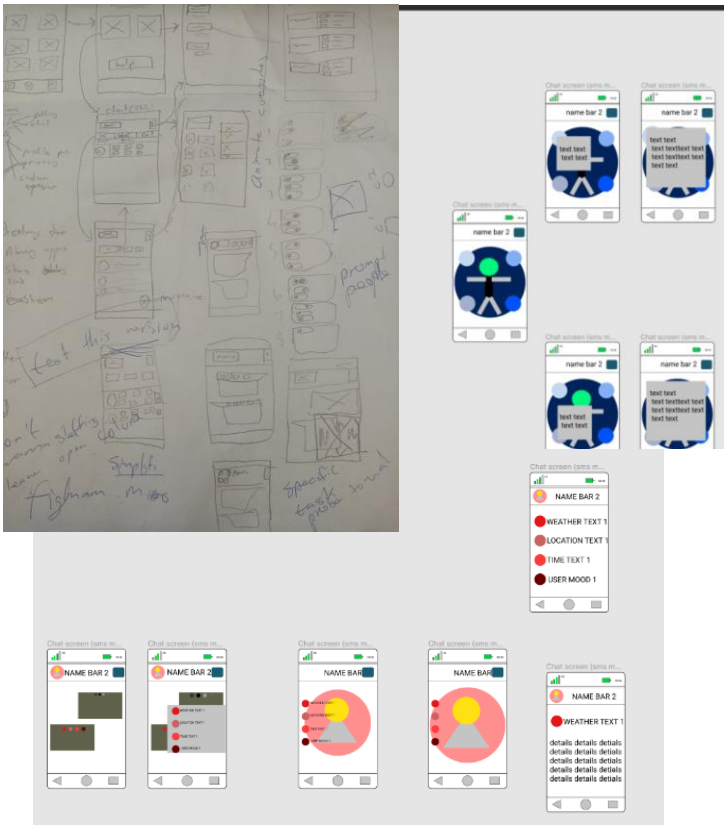
I sent participants my details too. And they were less apprehensive about having my information than they were about sharing theirs.

Most participants said they felt my information gave them a better understanding of my messages. This role prototype outlined privacy concerns; it showed how contextual awareness enhances the ability interpret and empathise with a messages; and valuable guidelines into how users will want to experience Con-text.

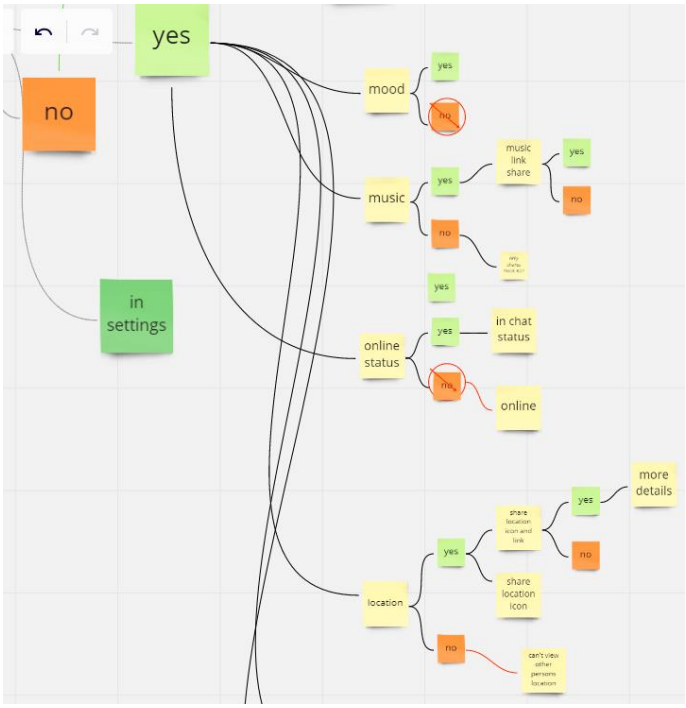
Interface and layout

Mapping out how to display the context in a manner that would be easiest to interpret and navigate for the users became the next focus.

I drew out multiple wire frames and flow charts to find the best way to present the way in which users would navigate the app on Figma. To save time when testing these wireframes on prospective users, each chat wireframe had its own unique layout.



(Figure 5- wireframes)



(Figure 6- A draft of how the privacy settings would work)

In addition, I used Miro to map out a privacy system. Earlier interviewees, emphasized that sharing their location particularly needed to be in their control.

Interpretation

Interpretation of context is as pivotal to as being aware of context. Miss interpretation is likely to lead to an inappropriate response.

The form in which I choose to display the contexts is emjoies. (Insert quote about emojies and understanding them). First, I had to test the layout prototype created in Figma, as well as the security options.

My second round of user testing was a task based test. Participants performed tasks on Figma while I observed. The prototype did not have labels, but the format was like most messaging apps so participants found it familiar. To provoke the imagination of participants' labels were left out. The task that we performed where as follows:

1. Open a message

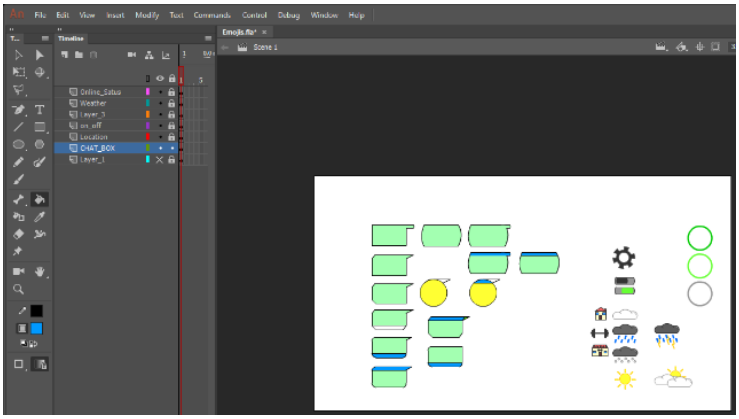
2. Open a user's profile

3. Click on a contextual button.

(Figure 7, a chat with an information overload)

All participants performed the tasks easily. This indicated that the layouts were user-friendly. Users preferred the layouts that displayed the contexts in the senders profile picture. However, the app gives context about the environment the sender is in at the time of the message, so the context also needed to be displayed in the individual messages.

The intention of the security section was to see how participants would respond to being strong handed into having some feature always turned on. These features were: mood, online status, and local time. Participants had pick the settings they would prefer. It quickly became clear that they didn't like being strong armed, with particular disgruntlement towards being unable to turn their mood and online status off. Most importantly, participants pointed out that they would prefer to have the option to choose what and with whom they shared. The take was that contextual information is shared in a discriminant manner.



(Figure 8- Making the GUI elements using Adobe Software)

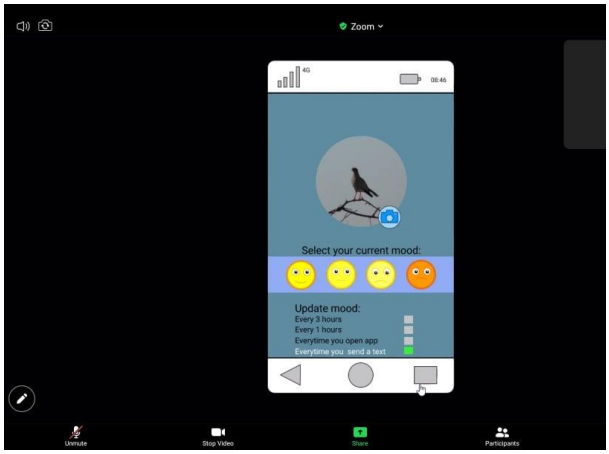
Before the delivery phase of the double diamond, I wanted to dig deeper into the interpretation of two factors, emjoies and the interpretation of one's own mood.

The fourth user test focused on the mood of users. Interviewees agreed that mood was a pivotal contextual information, so I need to see how capable participants were in determining their own mood and expressing it with just one emoji.

Participants found it hard to pick one emoji to represent their mood, but could at least interpret negative and positive emojies, hence, Con-text only has 4 mood states to choose from: a positive(happy) face, a neutral face, a negative(sad) face, and an extremely negative(angry) face.

I asked participants to update their mood using one of these emjoies (see figure X). Participants found the task easy, but, they also pointed out that range didn't cover a lot of their day to day emotions.

Participants of my four test could accurately interpret emojies regarding location and weather easily, however, emotional emojies were trickier.



(Figure 9- the mood selecting options)

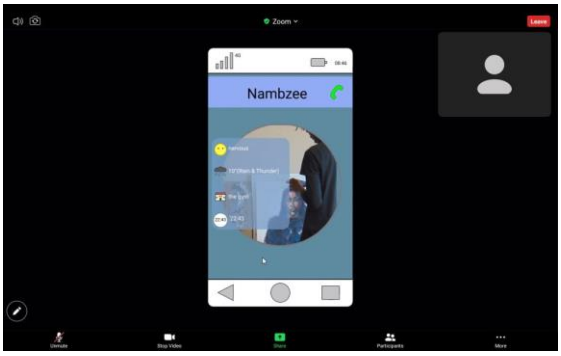
Being contextual aware

The final version of Con-text is a fully interactive prototype and shows context of the profile that sent message on the app. The context is displayed within the messages and the main profiles of the senders.

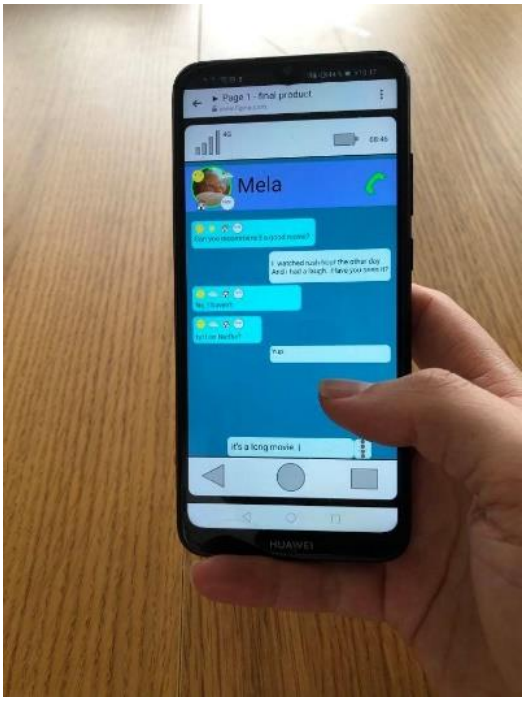
In our final round of testing, users had to interpret the back ground stories of each sender and see if their interpretation correlated with the background story I created for them. And all the response were correct. Participants were also interpreted the message in the chat using the context provided, and felt the context helped them understand the sender better.

We also tested the final privacy options that user could control. The options available were: a default option where all settings are turned on; you also have two custom settings where you can either customise settings for all the users in one go, or you can hand pick which users you want to give what settings specific settings to. Con-text also allows users to customise settings for individual profile though their chats by.

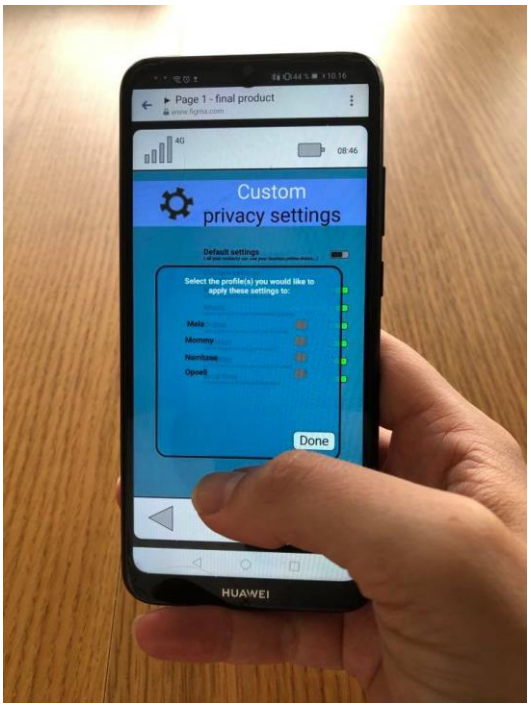
Users said Con-text gave them option to have a more “holistic” messaging experience. It gave them vital insight into the other person’s life, and therefore a better understanding of the messages. It was common repetition that they found it to be useful for international conversations. The safety settings made them feel more in control and when asked if they wouldn’t just have them off the entire time, they said “no, it’s just about controlling who sees what.”



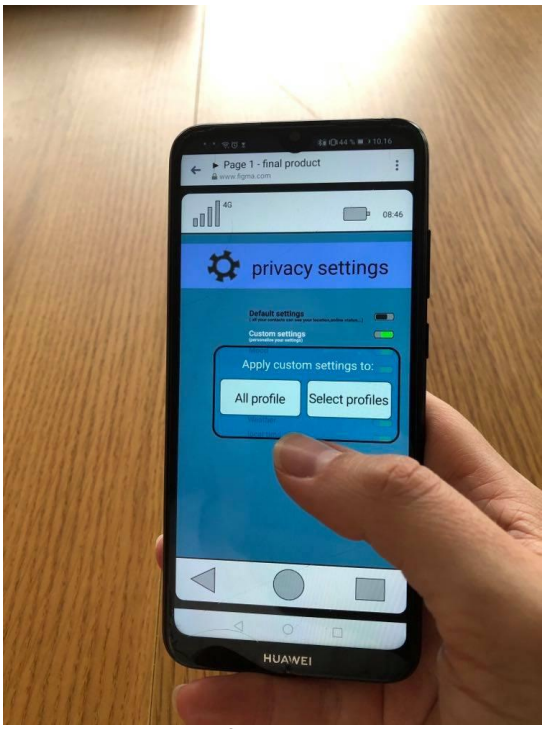
(Figure 10, a profile of a sender with his latest context displayed)



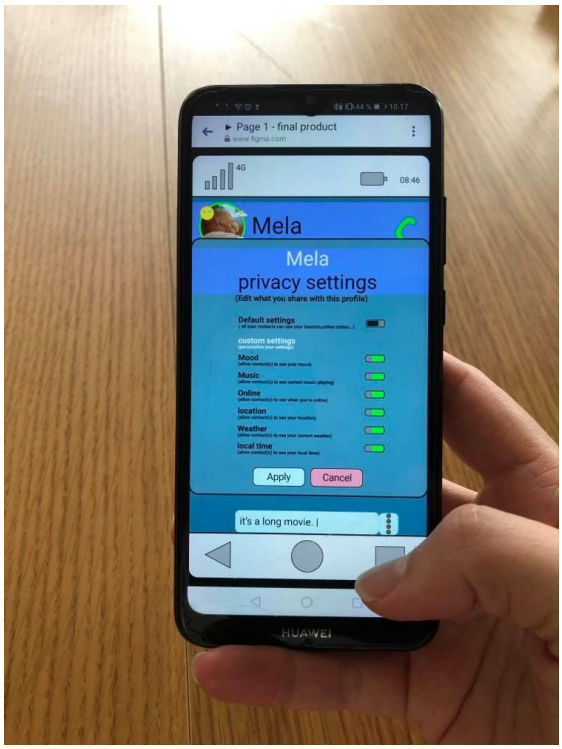
(Figure 11- The final chat interface)



(Figure 12- The final settings interface)



(Figure 14- A display of how to choose whether to edit settings for all contacts of selected contacts)



(Figure 13, Privacy settings within the app)

Discussion

In this pictorial I showed the design process of Con-text, an App that and the sender context to their messages. We first understood what awareness is, with specification to this project. We the developed a role prototype that made us understand the implications of sharing contextual information and receiving it. We sketched wire framers for interface and mapped out security features. And we also explored the interpretation of emojies and emotions.

The final version of Con-text shows that contextual awareness is useful in understanding text messages. And users must retained control of their privacy.

Nevertheless, more work needs to be done in this field. Research on the implications of sharing context goes beyond just empathising with one another, it will effect relationships, emotional self-awareness, and removes the ability to lie.