Vea

Low-Fi Prototyping & Pilot Usability Testing

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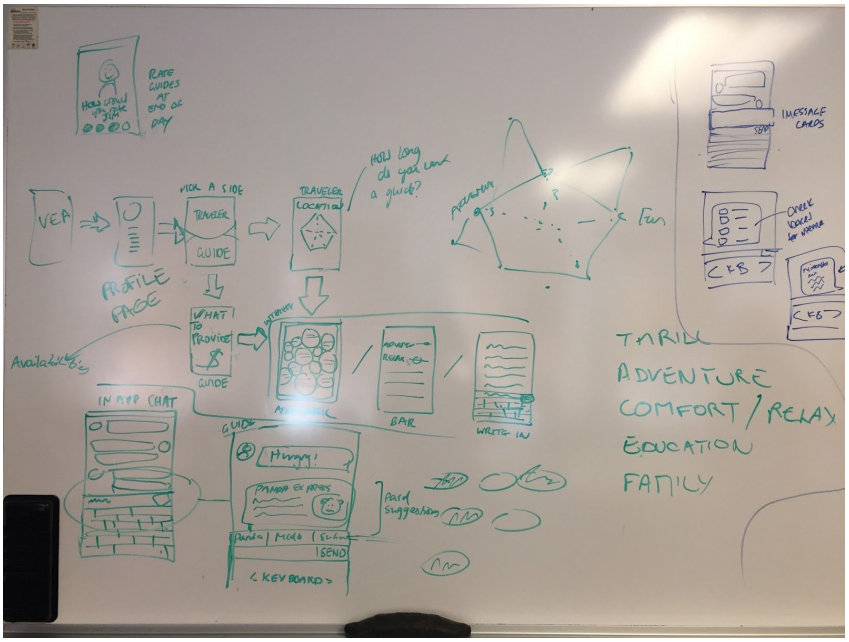
Mission Statement/Value Proposition

Planning a fun adventure takes time. We'll connect you to a local guide who can help.

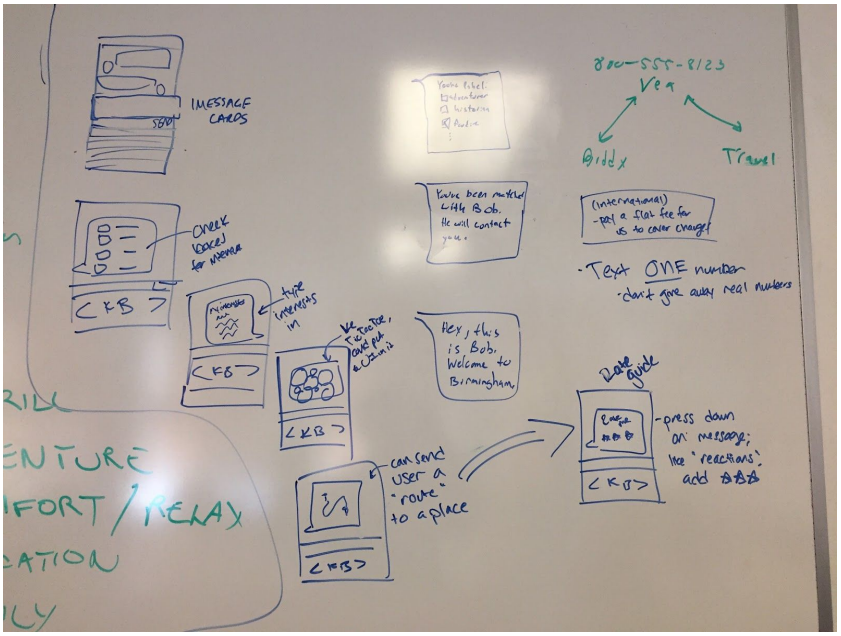
Problem/Solution Overview

Adventurers enjoy spontaneity & new things; those aspects of traveling get taken away when they must plan every detail and activity of their trip. Our app relieves the stress of constant planning and connects the adventurer to a local guide who helps assist the adventurer in exploring a new area.

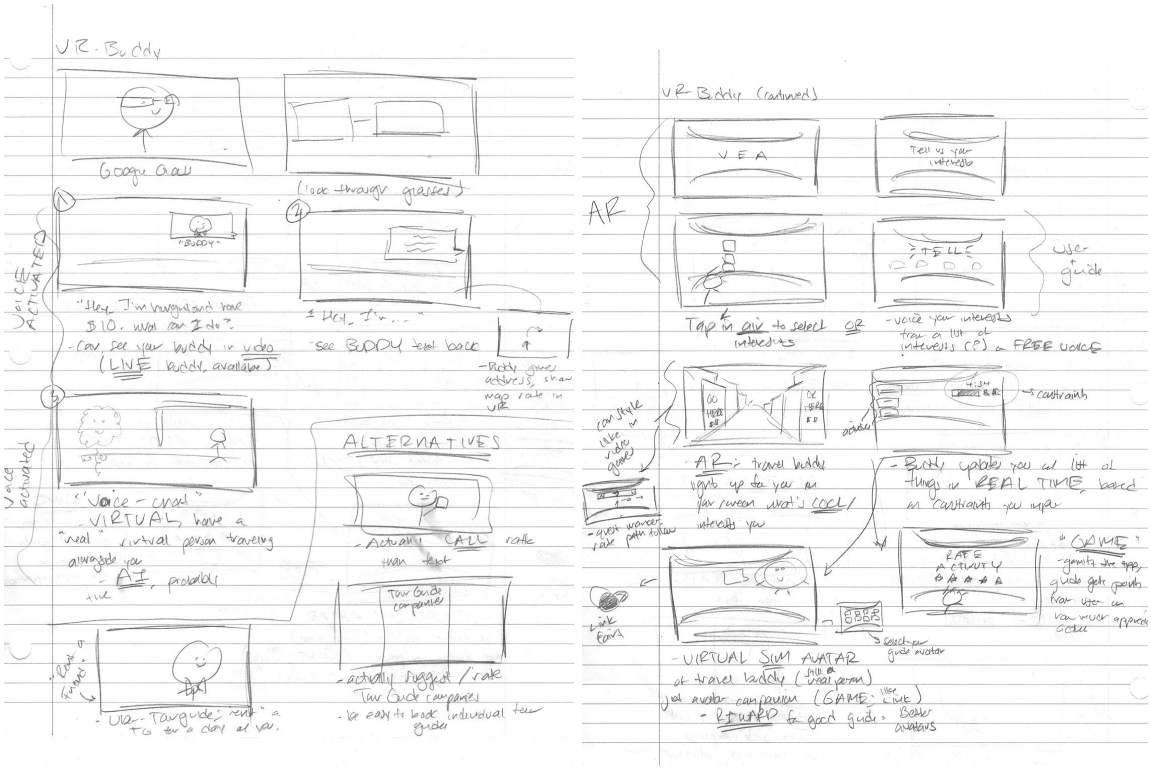
Concept Sketches



Full iPhone App Concept

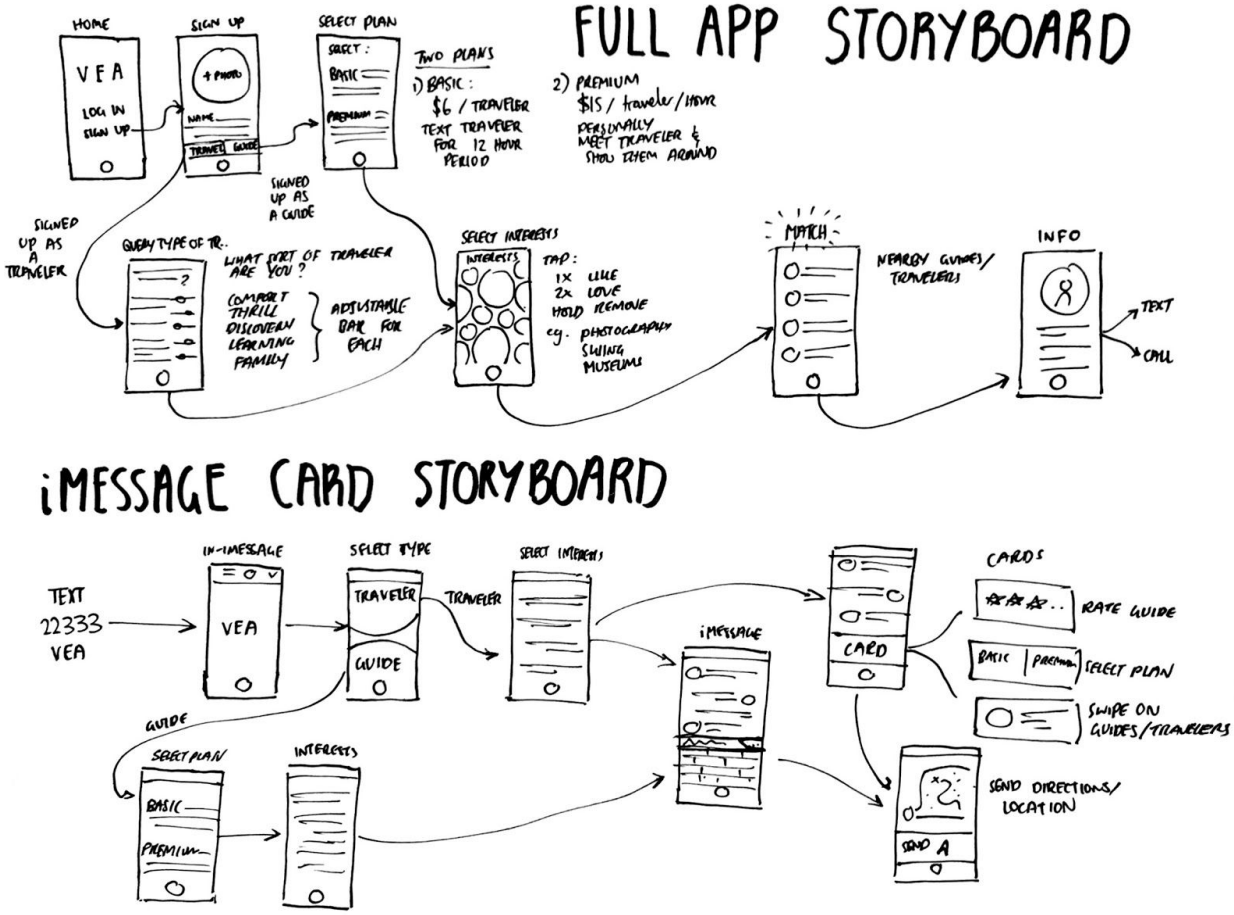


iMessage App Concept



VR App Concept

Top 2 UI Sketches

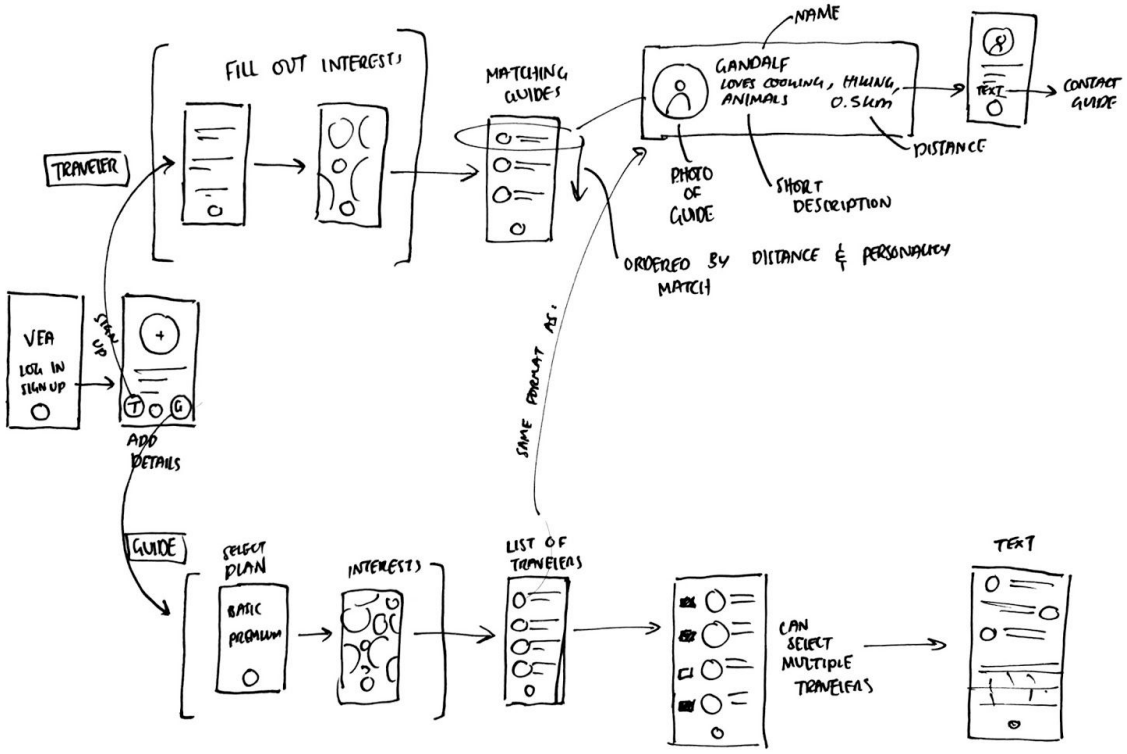


Selected Interface Design: **Full Vea App**

Task Storyboards

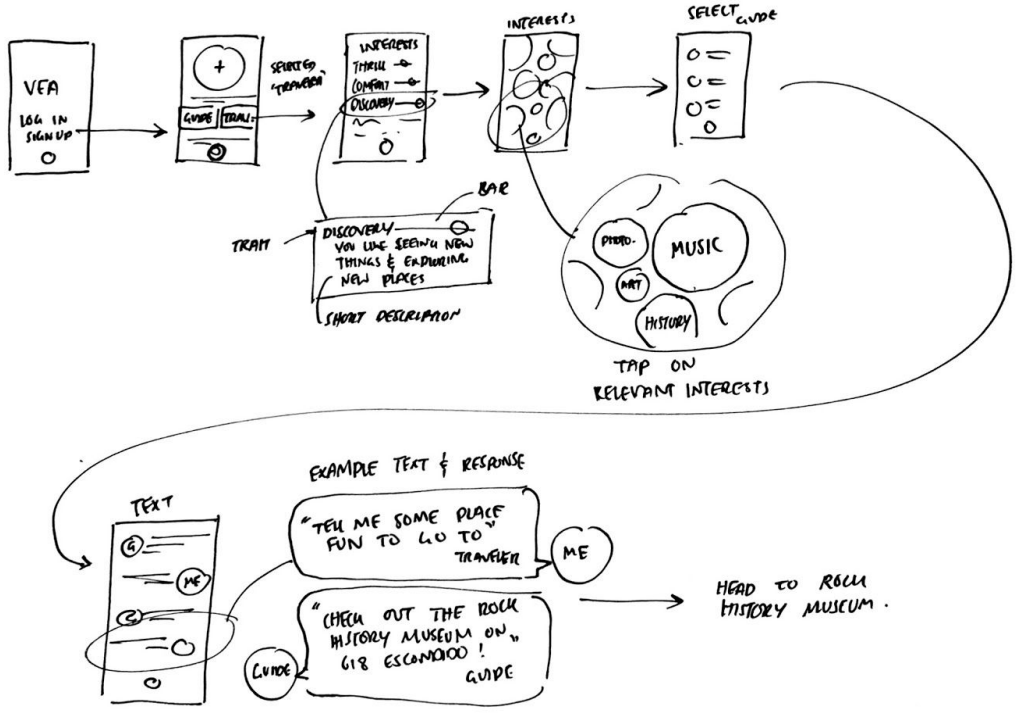
TASK 1 (SIMPLE)

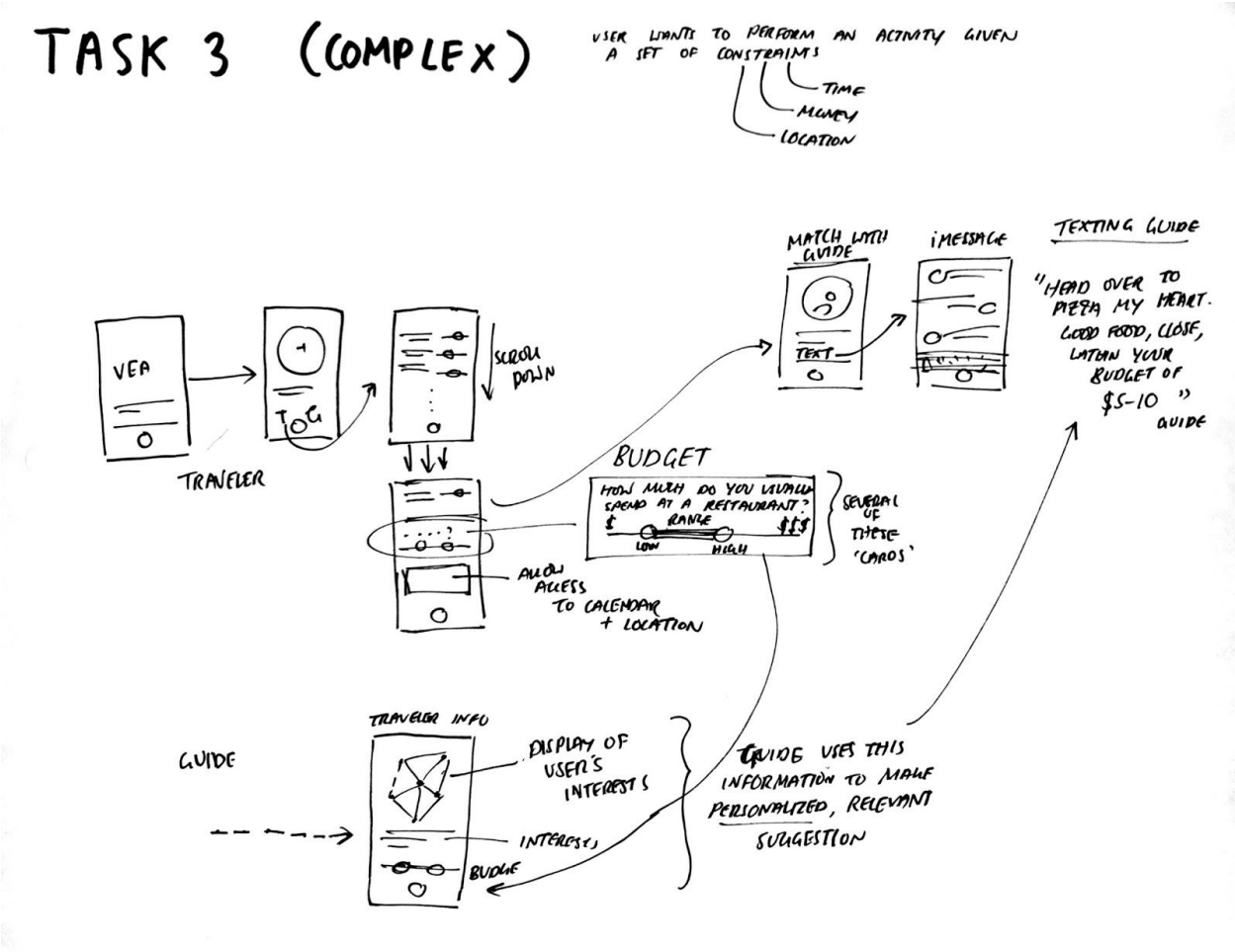
- USER WANTS TO CONTACT A 'GUIDE' / SOMEONE WHO KNOWS AREA
- GUIDE WANTS TO BE CONNECTED WITH TRAVELER



TASK 2 (MODERATE)

USER WANTS TO FIND FUN, RELEVANT ACTIVITY UNIQUE TO THE AREA





Reasoning for the Selection

Overall we decided to select the full iPhone application because it would allow us to have full control over the UI, whereas the iMessage application would be a new, unproven interface that many users would probably not be familiar with. Additionally, we have experience building traditional phone apps and less experience with iMessage applications. In summary we felt we could do a better job creating a pleasant user experience with a full iPhone app.

Full iPhone App

Pros

- Can build our own UI, get analytics from our own app
- Recognizable ‘app’ for users; our app icon is its own recognizable marketing
- Established foundation on how to build apps
- Can utilize output to other apps, like Maps

Cons

- Requires getting users to take time to download app
- More work on our part to implement our own messaging system

Built-In iMessage App

Pros

- Bare-minimal UI implementation on our part
- Easy to understand for user; pure text conversations, no overhead
- Minimal space usage on user's phone, since no full app
- User texts our Vea phone number, we send back updates through built-in iMessage app; easy to share phone number

Cons

- iMessenger built-in apps still relatively new
- Would require more effort in marketing to get users to download it into iMessage
- Would have to learn how to implement iMessage app vs. normal app
- Everything's restricted to solely iMessage, dependent on Apple

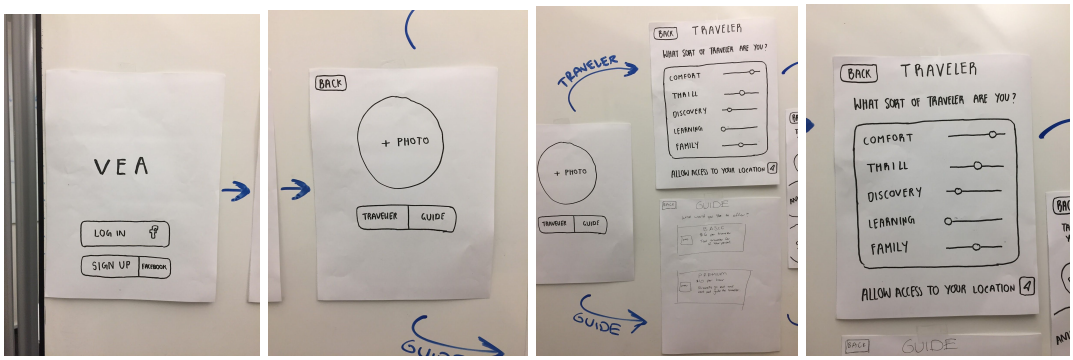
Prototype Description

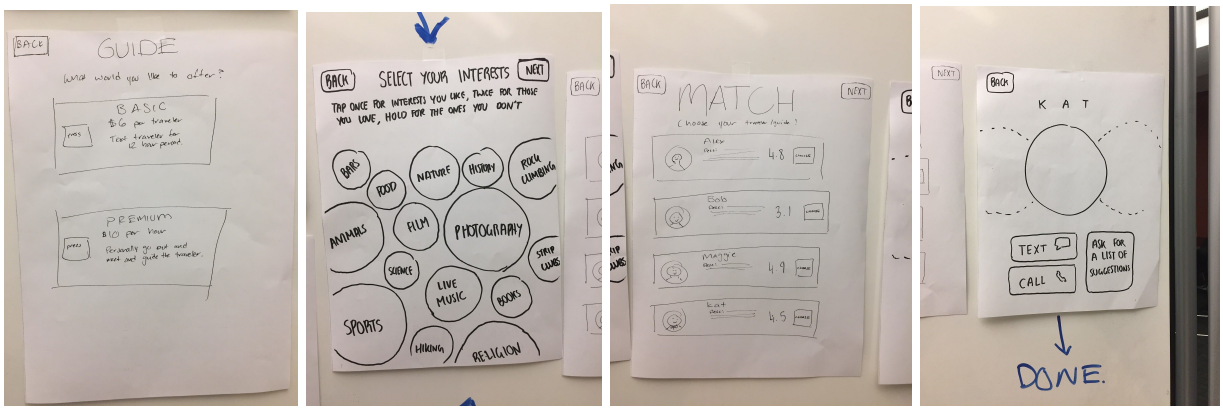
We made our prototype out of printer paper, and used sharpies to draw the diagrams. We used the entire paper real estate to simulate the appearance of an iPhone/mobile screen.

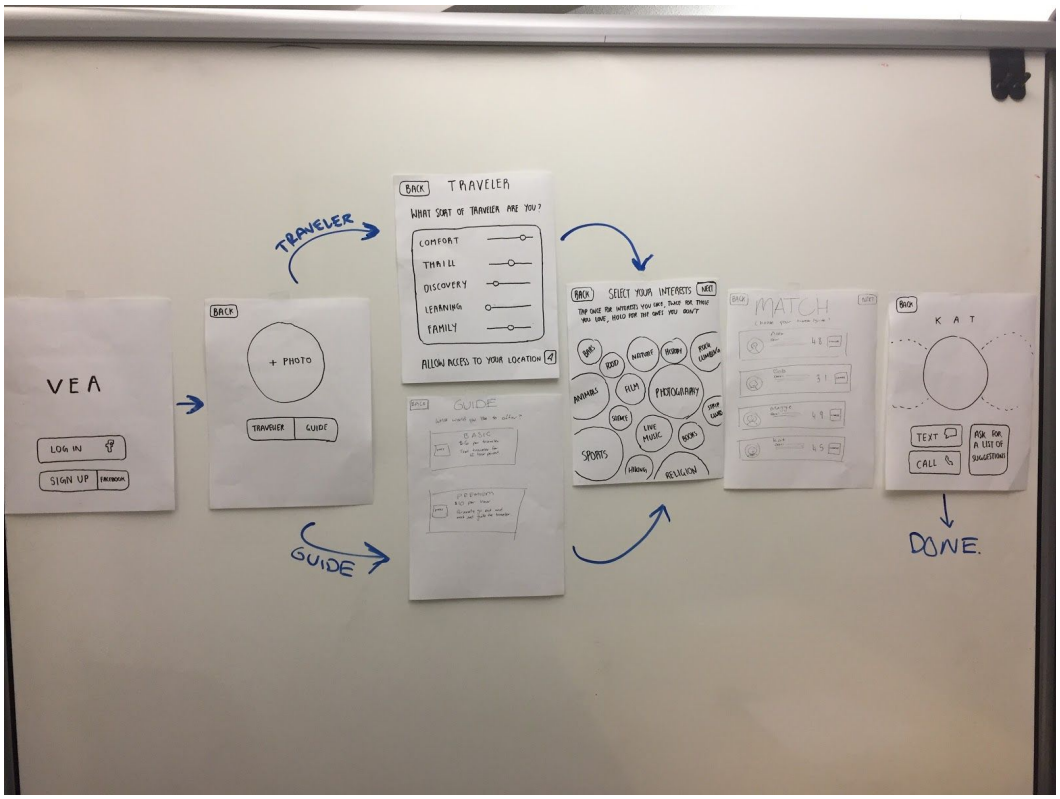
We simulated the actions of clicking through an iPhone app by removing the paper sitting in front of the person and replacing it with the "next screen" when they tapped a navigation button on the drawing.

The prototype was developed to explore a variety of input and navigation paradigms. This can be seen in the difference between the "Traveler" view and the "Interests" view. Our hope was that observing user behavior on both of these screens would give us insight into which was the more intuitive input interface.

Additionally, we didn't include some of the details that would be included in a full-featured app, such as settings, additional options and scrollability as this would have let to too complex of a prototype for this stage of testing.


VEA
LOG IN
SIGN UP
FACEBOOK
BACK
+ PHOTO
TRAVELER
GUIDE
TRAVELER
WHAT SORT OF TRAVELER ARE YOU?
COMFORT
THRILL
DISCOVERY
LEARNING
FAMILY
ALLOW ACCESS TO YOUR LOCATION
GUIDE


BACK
GUIDE
BASIC
PREMIUM
SELECT YOUR INTERESTS
NEXT
TAP ONCE FOR INTERESTS YOU LIKE, TWICE FOR THOSE YOU LOVE, HOLD FOR THE ONES YOU DON'T
BARS
FOOD
NATURE
HISTORY
ROCK CLIMBING
ANIMALS
FILM
PHOTOGRAPHY
SCIENCE
STAND UP CLUBS
LIVE MUSIC
BOOKS
SPORTS
HIKING
RELIGION
MATCH
Alex
4.8
Bob
3.1
Maggie
4.9
Kat
4.5
KAT
TEXT
CALL
ASK FOR A LIST OF SUGGESTIONS
DONE.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GUIDE
DONE.

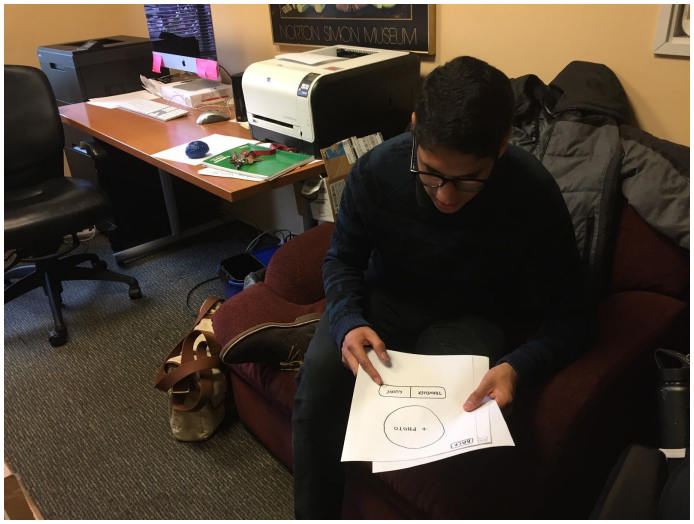
Method

Environment

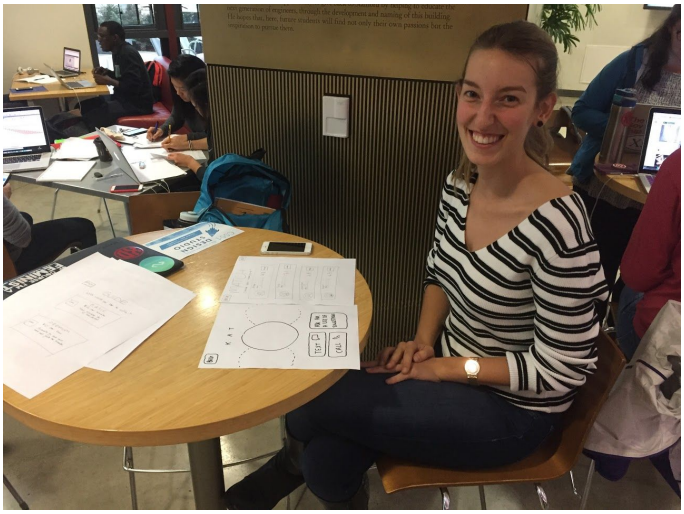
The participants in our study were recruited and interviewed at various locations on campus in order to get a diverse sample of users and environments in which they may use the application. Having a variety of participants allowed us to glean insights from this study that we would not have otherwise notice had our participants been all the same type of users.

Participants

- Participant #1: A Stanford student tour guide, who's lived in the area most of their life and is familiar with showing people around. We needed to get the opinion of a guide, rather than a traveler. Compensation: we offered 1 boba tea.



- Participant #2: A stanford undergrad from Turkey who is a seasoned traveler.



- Participant #3 Emile Contal - French entrepreneur in San Francisco

Team and Procedure

Member Roles

Team Member	Role
Alex	Usability Testing
Alexandre	Software Engineering
Basel	Design
Kim	Team Manager

Testing Procedure

We used our paper prototype as our ‘entire’ iPhone screen during the process, and when buttons were pushed, we placed the next piece of paper on top of the previous paper screen. First, we verbally told the participants the three tasks that they had to perform, and to act as though this was a new app they were trying for the first time and we would provide minimal assistance. For one participant, we directed them to follow the ‘Guide’ path rather than the ‘Tourist’ path first.

Tasks

- (simple) User wants to contact someone who knows the area. For the guide, user was meant to contact a traveler.
- (moderate) User wants to find a fun activity unique to the area. For the guide, user needs to describe what activity they’d tell a tourist. We needed to see in freeform fashion how the guide/tourist would react to only being given contact information.
- (complex) User wants to perform an activity given a set of constraints. For the guide, user needs to describe thought process of figuring out activity given constraints. Like (ii), we needed to see (in freeform fashion) how a guide might react to this and think through this, and whether the guide might want assistance in our app for in this task.

Test Measures

- The overall goal of our test measures is to gauge whether the user, without any direction, could understand the UI and interpret clearly how the app fulfills the use of connecting a tourist to a guide.
- Number of confused looks/pauses/hesitations when looking at UI

- Amount of time user took to process a ‘page’ when confronted with a new ‘page’ of the UI
- Number of ‘got it’ moments; moment of clarity, understanding at certain aspects of UI

Results

Participant 1

#1 found the UI to be incredibly easy to understand; he didn’t spend much time on each frame itself trying to understand the UI. He understood the sliders, the ‘add photo,’ the interest bubbles, and followed the directions smoothly. He had great approval and fascination with the ‘interest bubbles,’ and enjoyed the variety of interests and the different way to compute them. He accomplished the first, simple task (getting to the end of the task flow) relatively quickly.

He paused at the ‘Basic’ & ‘Premium’ options for guides, and was confused when he moved forward and wasn’t able to set ‘shifts’ for himself on when he’d be available for travelers. As a guide, he did not assume automatically that he could choose multiple travelers to contact, and instead chose one and moved on. Though he considered the UI to be intuitive, he asked questions on how he’d be matched to travelers; he knew it was based on interests, but he asked if he was meant to ‘request’ a traveler or once he ‘chose’ a traveler, they’d be permanently linked. He also wondered if the end ‘contact’ screen would look different for a guide, and if the ‘Get a list’ button would be different. He paused at screens that didn’t have a ‘next’ button, and waited for ‘computer’ interaction to move forward. He did recognize, however, that the ‘end’ of the task flow was the contact page, and said he was finished at the end.

At the end of the simple task, the guide expressed confidence that he could fulfill the moderate/complex tasks of appeasing a traveler. He did not feel like he needed assistance, and believed that his knowledge of the area was enough. He explained that he would not tell a traveler to ‘see’ a place, but he would tell travelers to ‘do this unique activity’ if the user wanted to see something unique. He believed ‘seeing’ is something everyone does, but ‘doing’ is different.

Participant 2

Our second participant was from Turkey. She considers herself a traveler and decided to use this flow when testing our prototype.

Overall she had significant problems using our prototype. The first confusion came when there was no obvious button to click after selecting her travel preferences. No next button existed in our prototype.

When selecting her interests, she was quite confused by the interface. She felt obligated to click on large bubbles and the explanatory text was quite annoying for her to have to read. I had to explain to her how to use this view. Additionally, she didn’t know where to click to go to the next

view. The next button at the top right is not in a place iOS users would expect. It makes them feel like they're "skipping" the view.

The same uncertainty came when selecting a guide. She was unclear what the difference was between the guides and wanted to know more about them. On the final page she didn't understand why there would be an option for a "list" as there was no explanation. She gave the feedback that it would be much more intuitive if the three "tiers" of service were clearly listed under each guide along with their cost. She also wanted to see bios and other information about the guides.

We got some great actionable feedback from this interview on the design of our application and have some clear changes we can make going forward.

Participant 3

Our last participant is a 26 year old French traveler and new entrepreneur in the valley, with a lot of experience in app development and business creation.

His feedback was useful in the sense that it were accurate and that the introduction experience was smooth and easy.

The experience was hugely improved by describing the situation at the beginning and forcing the user to place himself as a prior in the position of "local guide" or "new traveler"

Beside the user-interface interactions, (touch not intuitively placed, details concerning the connexion and sign up, of the way of choosing the interests) the experience was pretty straightforward. The steps seemed very logical to the point that he even asked before starting the real customization "how will he know what I'm looking for or what I like?"

Some other feedback was that the guide should be provided with a list of suggested services he could provide the user.

The experience was clearer than we expected, but the app need to be refined and the services (especially money wise speaking, needs to be rethought). Some interesting ideas are giving rewards for good reviews, partnership with local museums, etc..

Discussion

Overall, our participants had positive opinions about the app idea, but were generally quite confused about many interface details within the application. Some of these details are minor

and related to navigation and the placement of buttons. Others require redesigning the views to give the user an intuitive understanding of exactly how to use the product. Specific changes we can make include:

- Making the “Interests” page simpler and more intuitive. The bubble interface was not very easy for our users to understand.
- Giving the users more information about each guide in the options list. They felt in the dark about who these guides were.
- Adding more intuitive navigation controls based what iOS and Android users expect. The next buttons were often missing or oddly placed.
- Making the final view for a traveler simpler and updating it to clearly communicate exactly what options the user has to choose from for a given guide.
- Adding an introduction screen to clearly explain the purpose of the app.

Most of our mistakes in this initial prototype design stemmed from not “putting ourselves in our user’s shoes”. We did not design parts of the prototype from the perspective of somebody who has absolutely no idea or context about the product and how it should work. These interview and prototype exercises taught us that the user really needs to be hand-held through the initial setup of an application and as much ambiguity as possible needs to be removed from the design. A confused user is an unhappy user and an unhappy user is likely to simply delete the application.

Although there is significant room for improvement, we did get some things right. Users had no trouble with the “Traveler” interface where they input their travel preferences. This interface was very straightforward and intuitive because we used the simple range sliders familiar to everyone. We should probably extend this simplicity, although “old-fashioned”, to other parts of the application.

In summary, we learned a lot from this exercise and gained a lot of actionable feedback that we will definitely incorporate into the next iteration of our prototype.

Appendix

Word Count

Word Count: 2060

General Script

We gave the user a general idea of the app; we connect travelers to guides, and vice versa. We asked them to state verbally their thought processes while using our app, and pretend that it was a new app they'd downloaded and were trying out. We then told them the three tasks that they'd want to fulfill, depending on if they were a guide or a traveler.

When they went through the app, we provided no guidance and observed. If the user got stuck at a part, we provided a short, brief answer for them to move on (or if we did not have an answer just then, told them to proceed). We made sure to observe their comments on what the user liked, when the user paused, and *why* the user asked a question if they got stuck at a part. We repeated this process with the 'other' role; ie. if a user started out with the 'guide' path, we told them to test the 'traveler' path.

At the end (when they'd reach the end of all task flows), we asked them questions about why they got stuck, why they expressed approval at some UI choices. Since our moderate/complex tasks are guide dependent, we asked their opinions on how they'd go about fulfilling those tasks (if they were in the position of a guide).
After that we concluded the interview.

Consent Form

Vea is being produced as part of the coursework for Computer Science course CS 147 at Stanford University. Participants in experimental evaluation of the application provide data that is used to evaluate and modify the interface of KnockKnock. Data will be collected by interview, observation and questionnaire.

Participation in this experiment is voluntary. Participants may withdraw themselves and their data at any time without fear of consequences. Concerns about the experiment may be discussed with the researchers Kerry Wang, Tatiana Grossman, and Anna Wang, or with Professor James Landay, the instructor of CS 147:

James A. Landay
CS Department
Stanford University
6504988215
landay at cs.stanford.edu

Participant anonymity will be provided by the separate storage of names from data. Data will only be identified by participant number. No identifying information about the participants will be available to anyone except the student researchers and their supervisors/teaching staff. I hereby acknowledge that I have been given an opportunity to ask questions about the nature of the experiment and my participation in it. I give my consent to have data collected on my behavior and opinions in relation to the KnockKnock experiment. I also give permission for images/video of me using the application to be used in presentations or publications as long as I am

Name _____
Signature _____
Date _____