MERGE

Santiago Seira	Phillip Jones	Casey Cabrales	Stephen Rice
Project Manager & Design	Development & User Testing	Design & User Testing	Development & Documentation

Introduction and Mission Statement

Merge is a mobile application with the aimed at helping users discover new music. Our team has come to the stage where we have narrowed our app's interface down to one interface that we believe handles all of the tasks we wish to address. However, we are not developing Merge for ourselves, so we set up several tests with potential users to get their take on our app's features and user interface. The rest of this paper details our Low-fi prototype and the methods and results of our user testing.

Mission Statement

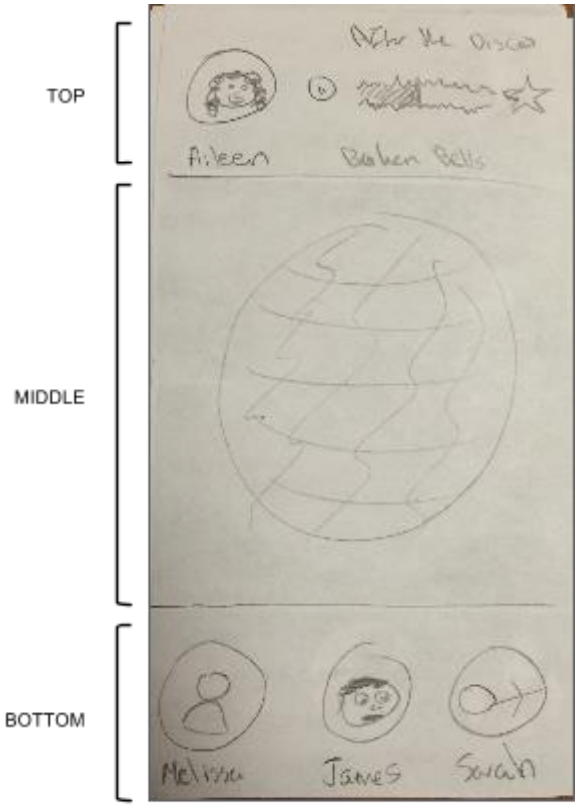


FIGURE 1: Initial sketch of MERGE's UI

Merge's primary mission is to provide a platform that aids people in the process of discovering and sharing music. Music is a powerful tool for creating and fostering relationships, and we aim to provide ways to encourage people to connect with friends and acquaintances through music.

Prototype Description

The main purpose for Merge is to provide a music listening platform that encourages music sharing and discovery based your existing friendships. The prototype can be broken down into 3 parts/gestures shown in *FIGURE 1* to the left.

The **top section** of the app represents the current song playing and the friend whose playlist this song belongs to.

This section is about the friend and his/her playlist. To interact with this section one can fast forward around around the song by drawing the timeline. One can tap on the users face to show the user's pictures instead of the album art and swipe through those while listening to

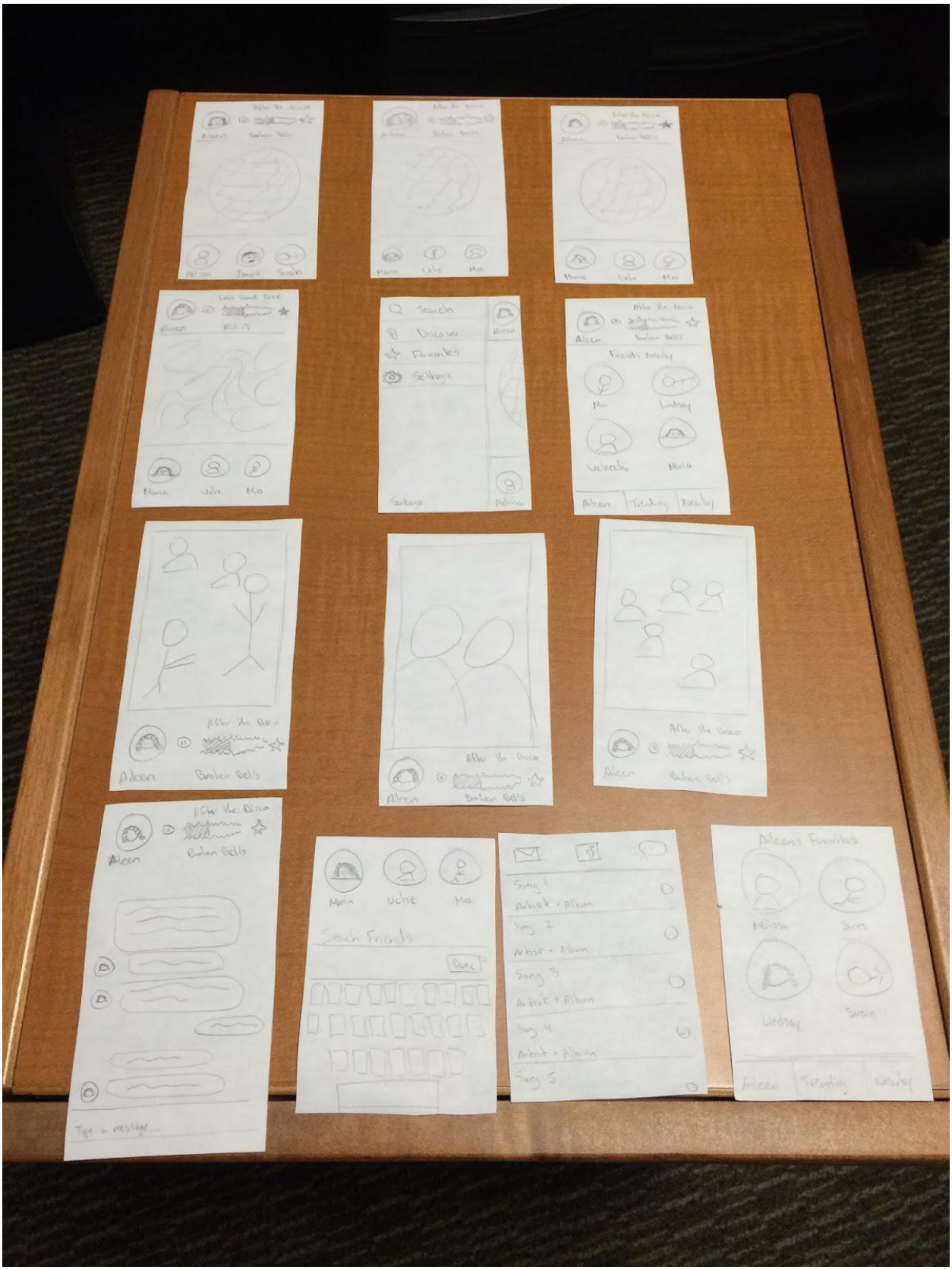
their music. One can also swipe this section down to reveal the upcoming songs. Favoriting a song also happens in this section.

The **middle section** of the app is used to show what the user is looking for, whether that is a users Facebook pictures, different friend's playlist to choose from, upcoming songs, or album art.

This section has very basic and intuitive features such as a tap to pause/play song. Swipe right/left to move back and forth through songs/facebook pictures. Also shows different menus and search results which allow the user to search, discover, and select new friends and their playlists. Here, we also show the discover tab of our app where users are suggested more friends to listen to based on whether they are nearby, trending or favorites of friends.

The **bottom section** pertains to friends and sharing functionality. It suggests 3 friends likely to enjoy the song you are currently listening to in an attempt to encourage music sharing.

Here we include our main functionality distinction from other apps, drag to share. To share a song to a friend, one can simply drag the friend's picture into the album art and this song is instantly suggested to that friend. The user can also swipe through these pictures to discover more suggested friends, ranked by most likely to enjoy current song. To search for friends, one can swipe up to reveal a search bar and type away.


Search
Discover
Favorites
Settings
Friends Nearby
Aileen
Broken Bells
Maria
Uche
Mo
Lindsay
Wenecki
Aileen's Favorites
Melissa
Jones
Sarah
Aileen
Trending
Nearby
Song 1
Artist + Album
Song 2
Artist + Album
Song 3
Artist + Album
Song 4
Artist + Album
Song 5
Search Friends
Done
Type a message...

Method

We developed paper representations of the app screens and simulated a users app experience as we gave them very broad instructions of tasks to use.

1. **Participants:** Stanford students randomly accosted for their input during lunch hours, chilling in their room and low pressure studying. They were compensated solely by being able to contribute towards music innovation (basically, they really weren't compensated).
2. **Environment:** The tests were done in a variety of environments where we thought people would enjoy listening to music. Some were done in a social setting, lunch hours, where the user was hanging out with her friends during the test. Others tests were performed in a slightly more private setting such as hanging out with room mate and studying alone in their room.
3. **Tasks:** We gave the users very little direction, only asking them to accomplish these tasks:
    - Discover a new song
    - Share a song with a suggested friend
    - Share a song with a specific friend of your choice
    - Message a friend
    - Get to know a friend's profile
4. **Procedure:** Give tester a specific task, replace views corresponding to every action they do, asking them why they performed each action and if anything performed different than expected.
5. **Test Measures:** Wrote notes constantly through the tests, focusing on missing features that users wanted and mistakes when users assumed a specific gesture would produce a different result. Also collected the tester's last remarks.

Results

Our experiment yielded a lot of positive results. Many tasks in our experiment were performed with ease. Participants were generally able to perform tasks such as messaging other users and sharing music without assistance.

Our participants also gave a lot of constructive criticism about our preliminary Low-fi prototype. The primary insight that we took away was that users wanted more control over their experience. Many of our testers mentioned that if they were going to use Merge, they wanted to have greater control of the playlist that represents them. They wanted to be able to add songs to their playlists explicitly.

Much of the negative feedback we received was centered on our Low-fi prototype having a complex UI. There isn't a clear definition of what favoriting does, and often the representation of user's personal information was unclear. A couple of the testers asked how they could view the songs recommended to them, something that we hadn't thought about.

Discussion

Overall we received very positive feedback regarding the idea of our app. People were excited at the possibility of listening to their friends playlists and learning new things about their acquaintances. One tester even stated that they “only find new music through friends.” Comments like these showed our team that we were heading in the right direction with Merge. However, our experiment also pointed out several key areas that need improvement in order for our app to stick with users.

We will utilize our results in order to improve the design of Merge’s interface. One of the most important insights we took away was that users want more control over their own playlists. Our previous idea was to take the Facebook likes and Spotify listening history to generate individuals playlists automatically. However, we will give users more control by allowing them to view and edit their own personal playlists.

In order to address the question of where users will be able to view music shared with them, we will introduce an inbox. Before experimenting with our low-fi prototype, we had thought extensively about the act of sharing music. However, we hadn’t thought much on receiving and presenting the music that people shared with users. The inbox will serve as a central location where people can view music that others have recommended to them. The inbox will be accessible through our menu sidebar.

The other key takeaway we got from the results of our experiment was that we needed to improve the clarity of our user interface. Our team has discussed this and will add a “hamburger menu” to make it clear that there is a slide-out menu. Additionally, we will make it more clear as to which person the details on screen are referring to.

Appendices

Consent Form

The Merge application 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 Merge. 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 (Merge) or with Professor James Landay, the instructor of CS 147:

James A. Landay
CS Department
Stanford University
650-498-8215
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 Merge 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 not personally identifiable in the images/video. I understand I may withdraw my permission at any time

Name _____

Participant Number _____

Date _____

Signature_____

Witness name _____

Witness signature_____

Demo Script

Task 1 - Discover
Open app, picks playlist
Click on suggested users

Search through people to choose
Click on user, then click on specific song
Save songs to favorites

Directions:

- Try and discover new music
- Change playlists
- Change song from playlist
- Save song to playlist
- Go to next song
- Fast forward song

Task 2 - Share

- Drag person to album art (suggested person)
- Search for a person and share

Directions:

- Share to suggested user
- Share to specific user

Task 3 - Meet new people

- Messaging people
- Flipping through pictures

Directions:

- Message playlist owner
- Message specific person
- See pictures of playlist owner

Notes taken from interviews

Start screen to be the songs that were shared to you?

Open the app to see what people have shared to you

- show friends faces coming out of the album art or vice-versa to suggest how to share in the future

Swipe up and show search bar
Feedback after sharing
De emphasize pics
Search bar at the bottom
Click on friend - see their photos

Where does the music come from?
I want total control of my playlists
Being compared to spotify… (we should do our best to not be)
Where do you see your recommendations?

Should you start on your own playlist

After tapping a friend, we don't show their face...
Need to know whose playlist I'm looking at

hamburger button for menu

Where's my playlist?
Difference between favorites and my playlist

First discover tab should be trending

Swipe up was not intuitive, share symbol
Send a message along with my song recommendation?

What does favoriting actually do?
Maybe just dial?

Users want to have the last say in what they listen to/publish to the world

Dragged album art into user to share, not the other way around…
Then tapped song to share…

Double bar to indicate you can drag up

Why am I seeing aileen's favorites when I click discover?
    Favorites of Aileen should be on her profile

Confused as to how playlists are curated
Point of app is to avoid trending and discover new funky tunes

I wished I could make a playlist that people could judge me by