

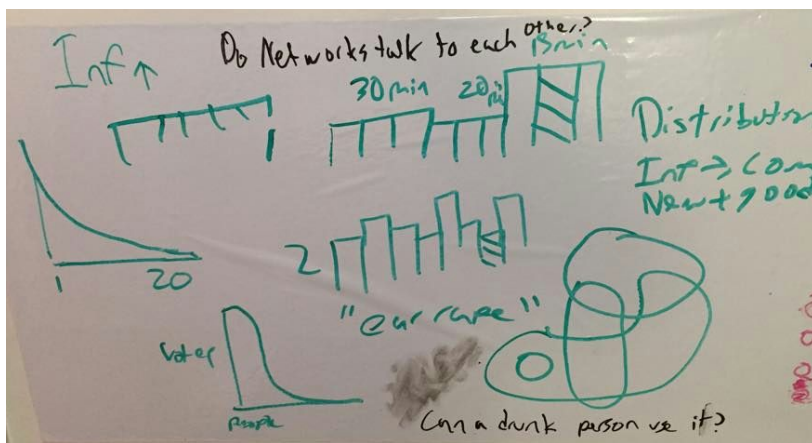
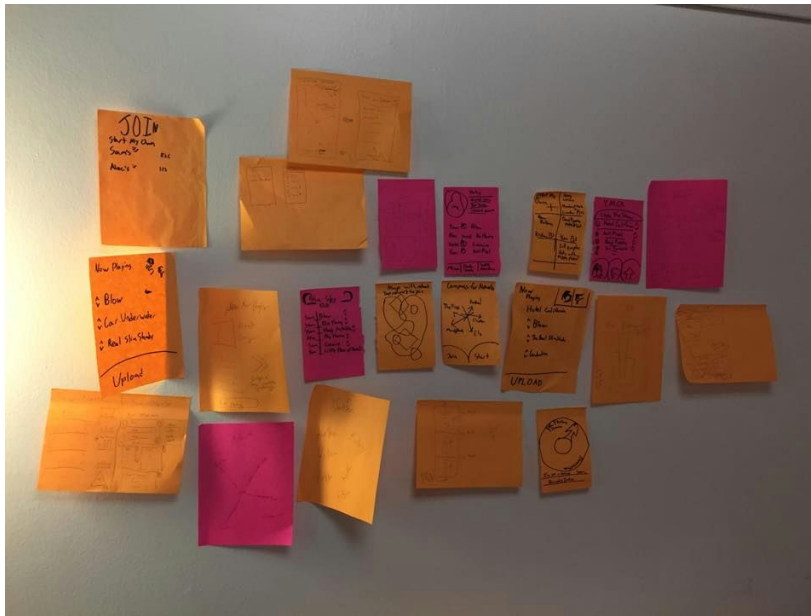
# Q

## Locally Synchronized Social Radio

Alec A, Yvan Q, Sam T

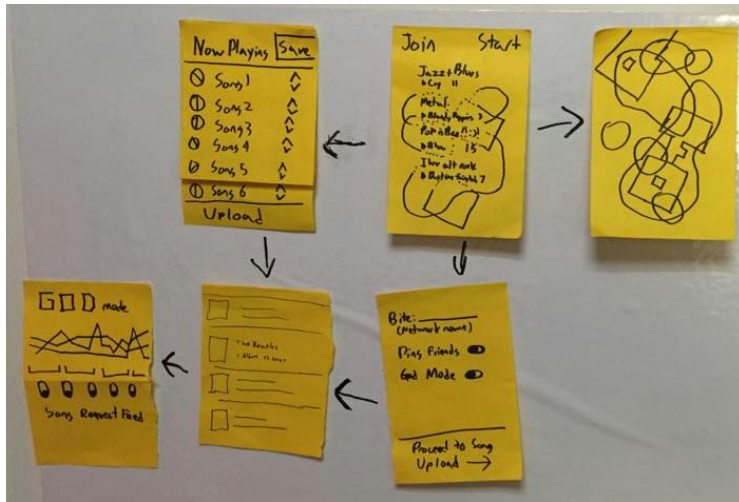
People want an effortless way to discover new music from friends without feeling Pressured to. Q is a crowd-powered local radio queue which synchronizes a shared musical experience across many speakers.

Sketches:

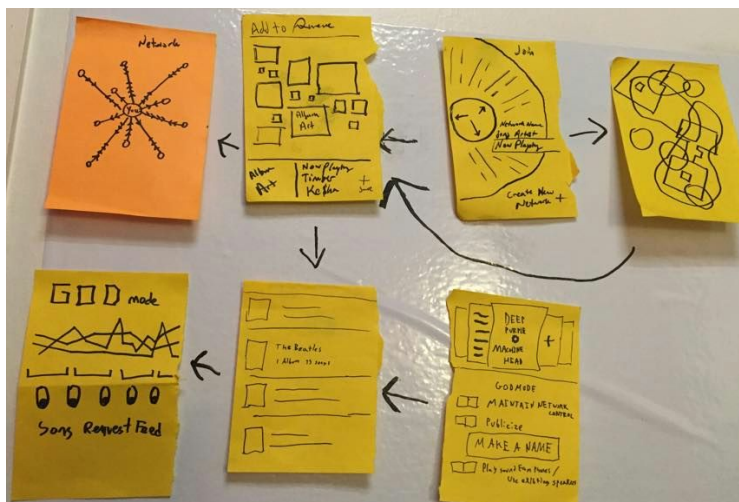


We realized that two broad categories that our brainstorm sketches fell into were designs that were more familiar to us and designs that were more experimental. We thus chose to pursue these two directions.

Our two selected design directions:



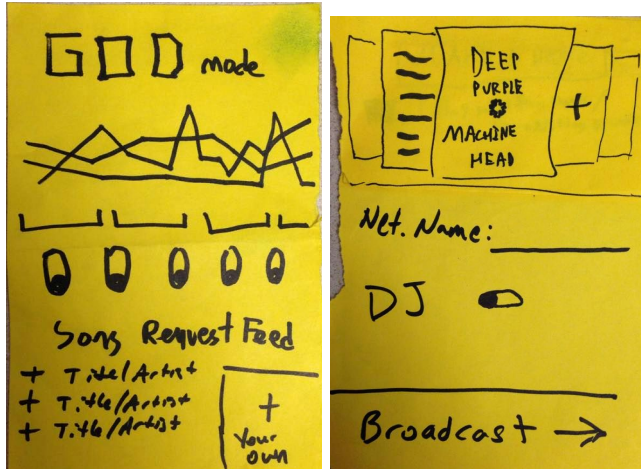
Our first design went for an intuitive and functional direction



Our second direction explored interface options more and gave the user a bit more control

We then thought about the pros and cons of both and realized that we really do not have enough information to select only one of these directions. We decided to prototype both design trees and use actual user testing data to make our decision.

The following two screens were updated for prototyping purposes



In the appendix, we show all of the screens in a little bit more detail, as the task flow has already been shown above.

### Methods

To reiterate, our three tasks were as follows:

- "Please vote on a song to show a preference"
- "Share a song of your own with the network"
- "As a DJ, select a requested song to play"

To make sure that we got a variety of user testers, we thought to our main use cases: casual listening and parties. To this end, we got a music influencer to one of our previous interviewees who also occasionally DJs small events as our first participant, referred to as subject 1. We chose him because we wanted someone who would be considered more of a power user and had a familiarity with DJing and music sharing in general. Subject 1 was interviewed in his dorm.



**Subject 1**

Subject 2 was a casual listener who also expressed interest in sharing music. We wanted to interview a more typical user who seemed like she would have a medium involvedness. We interviewed her in our room because she was comfortable there. However, she declined to be photographed.

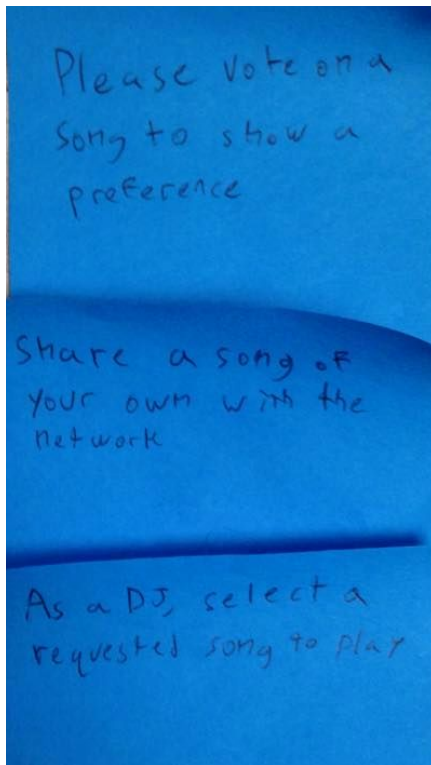
Our 3rd subject was an upperclassman we found after a special dinner. The DFA special dinner was in our dorm and we found an appropriately aged intoxicated person because one of our use cases is parties. We need our app to be intuitive enough to be used in settings such as raves or frat parties where most people aren't sober. Subject 3 was interviewed outside of the special D.



**Subject 3**

During the testing process, we kept to the following methodology:

- One person was the computer.
- One person was a note taker.
- One person was a host - the only person who interacted with the participant.
- After introducing our project, the host would demo the task of creating a new public network.
- The host would then read each task off a sticky note and hand it to the participant, one task at a time. Before the DJ network task, the host would go back to the home screen and reframe the setting for the participant
- The host would offer limited help when explicitly asked something
- We tested our Familiar design prototype first, then tested the Experimental prototype, following the same procedure except for the repetition of our project introduction.



## Tasks

## Results

**Familiar Design:** We found, as expected, that the design that borrowed from other services was much more intuitive to use. Subject 3 compared it to Spotify. None of the subjects struggled with the simple tasks on this model. The join screen was easy to use and voting was incredibly straightforward. Several users expressed disbelief at how easy some of the tasks were. None of the test subjects actually used or expressed appreciation for the map with the superimposed list view. Subject 3 actually expressed dissatisfaction with it, saying while that it seemed effective in theory she doubted its viability in practice.

**Experimental Design:** The experimental design evoked much more complex and arguably more useful feedback on the simple tasks. Subjects 2 and 3 fawned over many of the design touches. They particularly loved the record-themed scroll real to choose a network although the “Join” label in the upper right hand corner was confusing. (2 out of our three subjects mistook it for a button). The queue screen, with the floating album art elicited similar if more ambiguous responses. Everyone thought it was very “innovative” and visually compelling but struggled to interpret what position meant. In general, we took a lot for granted with the design. Subject 2 hit us with a series of questions about how new songs would appear in the system which we simply hadn’t addressed. Subject 2 also wondered what the axes corresponded to, only one of which we had even been using as a metric. There was a very strong inverse correlation in the thoroughness of demoing with their confusion on this screen (there was much less of a correlation on any other demoed screen).

**God Mode:** God mode was very enlightening, that is to say, the user experience with it was disastrous. While all of our testers saw its use and were excited about many of its features, actually using it was by far the most challenging element of the interviews. I attribute some of this to the fact that we did not demo god mode at all other than briefly flashing the screen, meaning that we threw the users in blind. Users felt lost in god mode. Getting in and getting out seemed convoluted. Throwing a switch to enable a later screen was baffling. The excess of switches and the analytic table seemed intimidating. Not a single user seemed to truly feel comfortable until we ended the simulation and hit them with more questions and explanations. The feedback was very similar to that for the alternative queue design, in that everyone loves the utility offered but the implementation seemed intimidating and almost counterproductive. While all three subjects understood that the graph at the top is some kind of metrics, the programmable buttons were baffling for people, which is understandable as we never explained their existence or purpose. God mode significantly increased the difficulty of using our app.

## Discussion

We agree very quickly to mate our two models to produce more viable offspring. As the map was apparently less of an asset that we had originally perceived, we agreed to ditch the functional join screen in favor of the scroll wheel that had elicited such positive feedback. The functional queue seems much simpler to implement and is much less of a barrier to usage. While the alternative is visually compelling, major barriers exist to a successful implementation that seem, without essentially training users specifically too it, unsurmountable. The cost in the learning curve of implementing it could prove a significant barrier to an overall positive user experience. We will shelve the idea, but the technical difficulty of developing this view from the ground up is likely too much for our team, even if we knew how to fix the design issues.

Our other main takeaway centered around god mode. We originally designed the god mode screen as modular components that could be customized to the dj's preferences. We proposed a variety of solutions to barrier it posed to the fluidity of use. A pay wall, making it inaccessible to anyone besides dedicated users was one option. A simpler god mode was also considered. The solution that received the most support from our team was creating a computer program for god mode as it would work better with both the modular theme and a dj's typical setup for mixing (a laptop). This will eliminate much of the confusion surrounding creating a network, as it eliminates the need for a screen, and establishes djing as a separate, specialized use case that simply depends on audience members having the app, and doesn't add any complication to the typical use case.

We are still keeping options open in terms of other functionalities, including brainstorming a curating option that's more democratic than the dj-centric god mode. In terms of usability, we learned that we need better ways to navigate between screens, as gestures a la snapchat are not at all intuitive. Back buttons, or a task bar at the bottom were both suggested to improve navigation. I was expecting a lot of small things to be wrong but, surprisingly, according to our testers, few details required revision.

Overall this was an incredibly rewarding experience and gave us a lot of very valuable insight. It has definitely reframed much of our discussion about the direction of our app. We are realizing that we need to streamline our functionality.

## Appendix

### Interview Notes

#### **Subject 1**

##### Design 1

Intuitive

God mode still very difficult to access. The name might need revision

Gestures to go back also didn't work very well

##### Design 2

Confusion on selecting a network

Severe confusion with the cascade style

How to get to your own network

Very counterintuitive to get to god mode screen

#### **Subject 2**

##### Design 1

The network creation is clearly very confusing for people, and when asked to create a DJ network, the setup is very unintuitive

In addition with god mode, adding new songs is not particularly intuitive

##### Design 2

"So its like I don't like this song"

Confused on how to get back

Unelss the whole thing is like snapchat

Four basic menu areas where you swipe from table to table

If its just these two then that's confusing.

Vote on a song.

Are these all the names of networks?

Joining is slightly more confusing?

Scrolling to network

User makes sound effects.

What about this?

Join isn't a button.

Confusing over ui.

I take it and I pinch it bigger

I'm gonna be honest I wouldn't know the pinchy thing



If it was floating around and I pushed It higher.  
I found it confusing if it was top or bottom oriented.  
General confusion over navigation  
What if the size represented how people liked it and dragging it around represented your preference?  
Maybe. This is a very nebulous space and I don't think people would be able to identify orientation would be upvoting or down voting.  
NOTE: is snapchats awful ui just them being innovative?  
Theoretically we can do an overlay instructions.  
Task upload a new song.  
User assumed we labeled her song as hers.  
User generally confused over what to do with song after uploading her as its status Djing.  
God mode switch  
Network name  
Pretty intuitive.  
First reminds me of spotify.  
When you're in an app you never want to fail trapped in the screen that you are in. Oh my god how do I get out of this! Bar in the bottom makes navigation easier. Different names for getting around.  
Maybe if you added back and forward buttons.  
Make forward and back buttons more intuitive.  
Does not like the pinching thing. Barrier to entry to high. Need to give meaning to actions.  
If you had this and made it work it would be super cool.  
"more fun to use"  
She doesn't see an easy way to make it work.  
Upvotes and downvotes.  
Next up.  
If there was a way to do it in a more clear way.  
if we could organize it

### **Subject 3**

#### Design 1

Introducing the app.  
Toggles for God mode.  
First task: vote on a song  
Absolutely no friction on design 1 with voting and uploading

Confusion on using god mode (god mode not demoed though)

## Design 2

Song voting frictionless.

Add to queue also very smooth.

God mode is one of the most confusing screens.

Song brackets seem attached to buttons.

Reinterpreted god mode.

Map is actually kind of distracting.

Amanda likes taking risks in design.

## Consent Forms

**Consent Form**

The Q 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 Q. 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 (Alec, Sam, Yvan) 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 Q 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 Krishan Kumar  
Participant Number 1  
Date 10/22/15  
Signature [Signature]  
Witness name Yvan Qum  
Witness signature [Signature]

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Name Amanda Coopersmith  
Participant Number 3  
Date 10/22/15  
Signature [Signature]  
Witness name Zack Swafford  
Witness signature [Signature]

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Name Isabella Jibilia

Participant Number 2

Date 10/22/15

Signature Isabella Jibilia

Witness name Samuel Trautman

Witness signature Samuel Trautman

**Detailed descriptions of each screen**

