Vertical Music Discovery

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Value Proposition

With this project, we aim to provide a fun, easy-to-use mobile app for casual, vertical music discovery.

Team

Emmerich Anklam - Team manager and designer
Robert Fearon - Developer and designer
Jorge Pozas Trevino - Developer
(Documentation and user testing will be divided about evenly.)

Problem and Solution Overview

There is no easy way for casual music listeners to find lesser known artists within vast libraries of recorded music. Current technologies generally either trap listeners in a narrow span of popular music or appeal only to niche, underground markets; often little overlap exists between the popular and the underground. We propose an app that allows listeners to discover great, lesser known music by gearing listeners toward vertical discovery, i.e. moving from more popular to less popular music in a few minutes.

Contextual Inquiry Customers

Joe —undergraduate student
We interviewed Joe in his college dorm. Joe is a very opinionated person, so we had little trouble asking him to give us his opinions on the state of music technology. He guided us through his methods for hearing music, extensively demonstrating his uses of Pandora as well as the UI flaws he sees in the app.
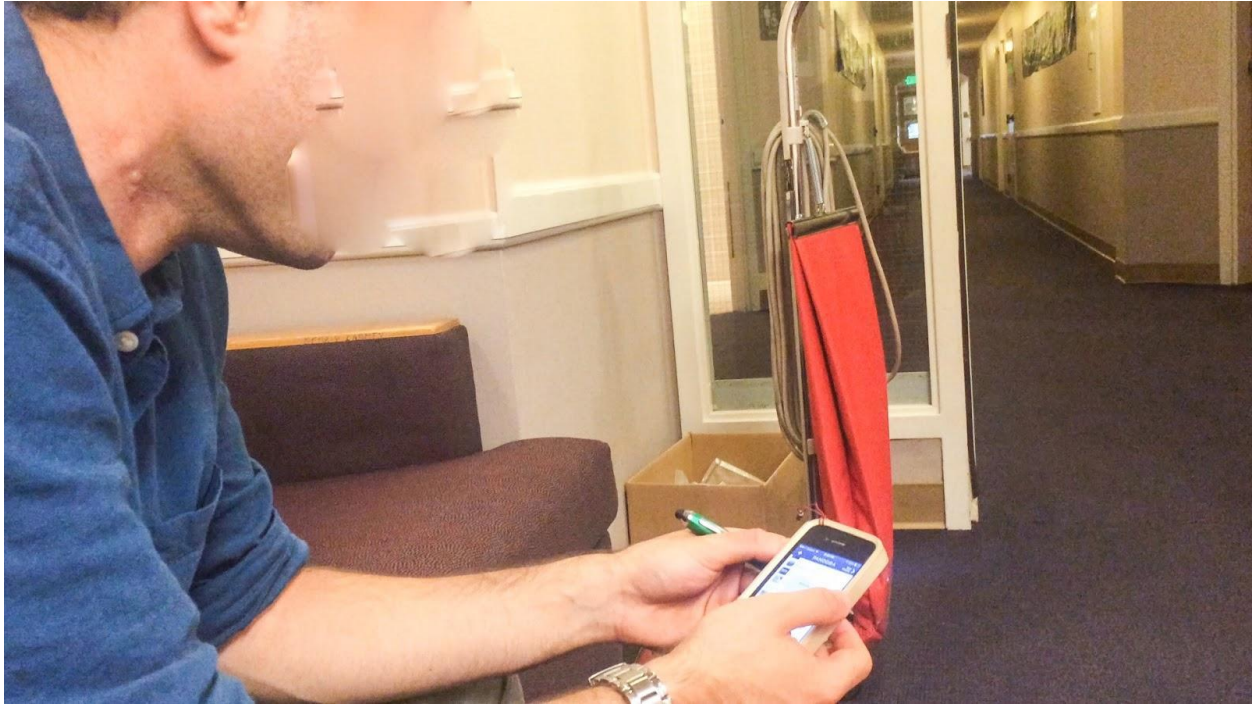
Isabel —community member, early middle age
Lishka —community member, late middle age
Warren —community member, late middle age
We interviewed Isabel, Lishka, and Warren at Stanford's radio station, KZSU. Because it is open to both students and community members, the radio station hosts people with a diverse range of interests, practices, and needs. All of them stressed their own experiences as factors that drive their music discovery: Isabel hosts a radio show that includes Spanish-language music, Lishka thinks most tech markets overlook people in her age range, and Warren wants more inspirations for his guitar playing.
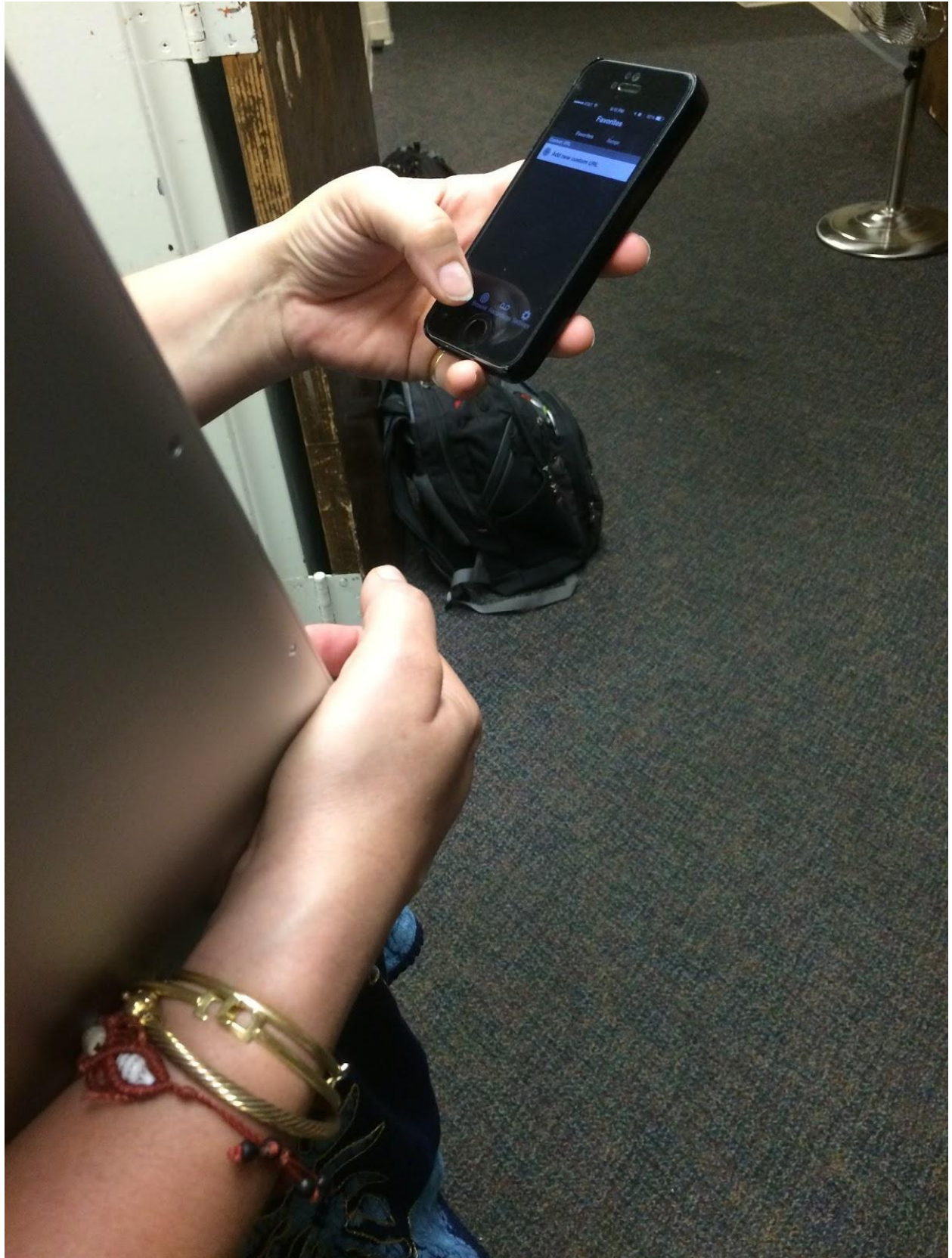
Contextual Inquiry Results

All of our customers have an interest in discovering more music, but they may not necessarily comb the Internet thoroughly for recommendations. Isabel showed us how she uses apps such as Stitcher Radio and TuneIn to find music through podcasts, but she also told us that a lot of her music discovery still happens via word of mouth. Lishka expressed a similar experience to Isabel, and she instructed us on the importance of new music technology that can cater to the needs of older customers. Warren, a longtime guitarist, gave us the musician's perspective, suggesting less dependence on genre—and more perhaps on actual instrumentation—as a point of departure for the music discovery process.

Additionally, all our customers expressed regret that they could not have better tools for discovering music personally. Both Joe and Isabel expressed their frustration with the lack of diversity and precision in Pandora's recommendations. Isabel uses services like iTunes and Youtube to hear music she already knows well, and her use of radio streaming apps—which she says are often too similar to one another—does not foreground music discovery.

Task Analysis Questions & Answers

1. Who is going to use the system?

Our customers are music listeners with a casual to deep interest in music discovery. Customers must have some familiarity with a mobile touch interface that is common with almost all smartphones today. Our program is not intended for people who are willing to explore music. They are not looking for music that they are familiar with, but instead want to expand their knowledge of music.

2. What tasks do they now perform?

   The customers we interviewed currently use a combination of word of mouth, traditional radio, and online music streaming to find new music. All of our interviewees said that recommendations from friends was the best way to discover new music.

   Listeners use either random playback radio apps, which play music that it thinks is similar to the user's preferences, or use apps like Spotify,Youtube, and iTunes to statically find new music. Isabel had the most complicated music discovery workflow out of all of our interviewees. She uses a combination of iTunes, Youtube, Stitcher Radio, and Pandora.

   When users record songs they like, they either manually write down the song, bookmark it in the app, or store it in a playlist. Sometimes, cross app incompatibility forces customers to manually write down preferences.

3. What tasks are desired?

   All of our interviewees mentioned that they wished it were easier to explore more specific genres on internet radio. Joe and Isabel both noticed that while Pandora has an ability to narrow genres down somewhat, it does not provide enough flexibility. They want more freedom while exploring new genres and want to be able to choose their music instead of have a completely random shuffle.
   Lishka and Warren also want more novel ways of finding music. Instead of inputting genres or similar artists, customers want to be able to search based on instrument types and sound qualities so they can have inspiration for their own music playing.

4. How are the tasks learned?

   Most digital music applications are easy enough to learn through simple tutorials and some program exploration. The customers who we interviewed all had their own techniques that combined multiple pieces of software to meet their needs. To teach our app customers, we can use a quick tutorial for each app can walk users through the interface the first time they open the app. Interface design should follow general conventions of touch interfaces so users have to spend a minimal time learning new tasks.

5. Where are the tasks performed?

   Music listeners want to discover music while stationary (e.g. while working) or while on the go. Music accompanies many other activities, so users will likely be multitasking. For example, Joe always listens to music while walking to class, so he sometimes wants to interact with his phone as little as possible. In order to be unobtrusive, our system should have a degree

of automation so users will not have to constantly interact with the app in order to use it. When not purely listening to music or multitasking, users can spend more time exploring the interface and the music options that are loaded into our app.

6. What's the relationship between customer & data?

Customers will want to remember artists and songs that they have discovered on the app. The program can keep track of customer preferences with an account and store basic information in the cloud. In the future, this program could also evolve into a website or desktop app, so customers should be able to track stored information and move it between devices.

7. What other tools does the customer have?

Customers already have a wide set of tools that are useful for music playback, discovery, and purchasing. There is already a range of internet radio stations that play music in a random fashion based on customer's music preferences. All of the current internet radio offerings focus mostly on mainstream music and familiar genres. They are not specific enough and do not let users decide the paths that they want to explore, so it will not be important to integrate with these tools.

Other services are more important. iTunes is the most common way that people purchase digital music, and it is integrated into almost every music app that lets users explore music. For example, customers who use Shazam to identify a song are immediately shown a link to the iTunes store on the results page.

Sharing music is also important to users. Most customers of media platforms by now are used to "Share" buttons, which allow them to post links to the media source to a social media platform communications system. On Pandora, Youtube, and other systems, users have immediate links to all of the major social media groups. Since recommendations from friends is one of the most common and important ways people discover new music, this feature is critical to our app.

Some websites focus more on music education and artist bios than music playback. Our app is not meant to be a music history program, but it would be convenient for users to have links to artist information.

8. How do users communicate with each other?

Word of mouth recommendations are a common way for people to discover new artists. Therefore, there should be some form of human element to our solution. Usually friends communicate with friends when recommending music.

Reviewing is also a common way for customers to discuss music. Music reviews can range from a simple 5 star review to long paragraphs. These reviews are useful for non-acquaintanced interaction. They also help to determine music preferences in general. We want to implement a crowdsourcing system to let users rate music, define music genres, and make connections between similar songs, artists, and sub-genres. Instead of just being able to rate the music, we want our users to recommend similar artists and sub-genres. Computers and algorithms can only go so far. Music experiences with a human element provide better results.

9. How often are the tasks performed?

The simple tasks, such as finding new music do pay, are performed frequently. Finding and playing music is the primary purpose of this app, so customers will likely perform this task almost immediately after opening the app every time. Other tasks, such as creating playlists, are less frequent, but still common. Customers will frequently store information about music they like.

10. What are the time constraints on the tasks?

Since customers want to spend minimal time finding music and maximize time listening to music or doing other activities, tasks must be easy to accomplish, intuitive, and unobtrusive. Tasks should not take more than a few minutes to complete on the long side, and simple tasks should take fewer than 30 seconds to complete.

11. What happens when things go wrong?

When customers cannot find what they are looking for in the music world, they will use other tools to find their objective. It is important to minimize errors and a make the interface easy to navigate. An occasional crash will not deter customers, but anything more than that will. Otherwise, customers will stop using our product and move to another one. Even if the switch is temporary, it defeats the purpose of the app.

Tasks in Our Application
1. Allow user to choose a starting song/artist/genre to begin search.
   ○ This is a jumping-off point for the discovery process.
2. Provide user with options on similar/related songs which might be of interest.
   ○ Linking users to new, unexpected, and well-tailored music is the meat and bones of the app. We will provide the users with great recommendations, and the user will still feel in control, without being overwhelmed with the amount of choices that really exist out there.

3. Allow user to view list of songs played in the past.
   ○ This ensures that users can keep track of their listening history without depending on memory or other complicated tools.
4. Share info about played songs and artists on social media.
   ○ This gives a limited extension of the app to social media, and lesser known artists who appear on users' profiles might receive a boost in listenership.
5. Link user to more information about certain artists.
   ○ This gives users an easy way to learn more about particularly intriguing artists– and direct users to the artists' products for potential purchase.
6. Allow user to signal favorite artists/songs and look for them again in the future.
   ○ This is a more condensed listening history, so that favorite songs can be found especially easily.

Three Best Application Ideas
1. Pandora, but for lesser known music.
   a. The simplest step forward is to create a better version of Pandora, which surfaces lesser known music and doesn't repeat the same songs over and over.
   b. There are multiple incremental changes we could make which would satisfy most of user complaints.
2. Guide user through a music discovery experience where the user actually gets choice other than at the starting point.
   a. Discover new music from previously unknown artists or genres.
   b. Start the user with something, and user gets to choose whether they want softer/harder -> more rockish, -> more classical, etc.
3. Surface lesser known music for people who want to listen only to non-mainstream music.
   a. Show a web of related music going from mainstream to unknowns, for user to navigate through the web and choose music as they please.
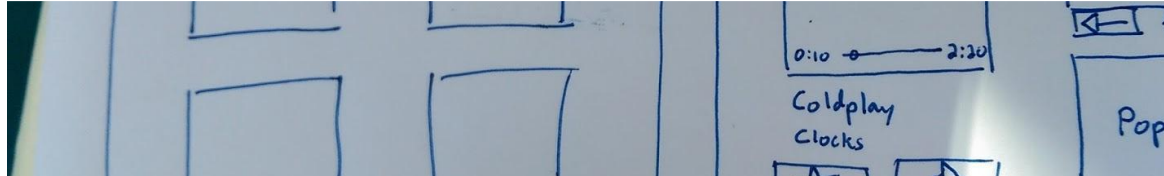
	Significance	Feasibility	Interest
Pandora-like Player	No	Yes	No
Semi-automated Music Discovery Experience	Yes	Yes	Yes
Catalog with all music, which allows the user to find all types of music	No	Yes	No

We chose to go with option 2, the semi-automated music discovery experience, because it's the idea that differentiates the most from existing solutions. It provides a solution for people who
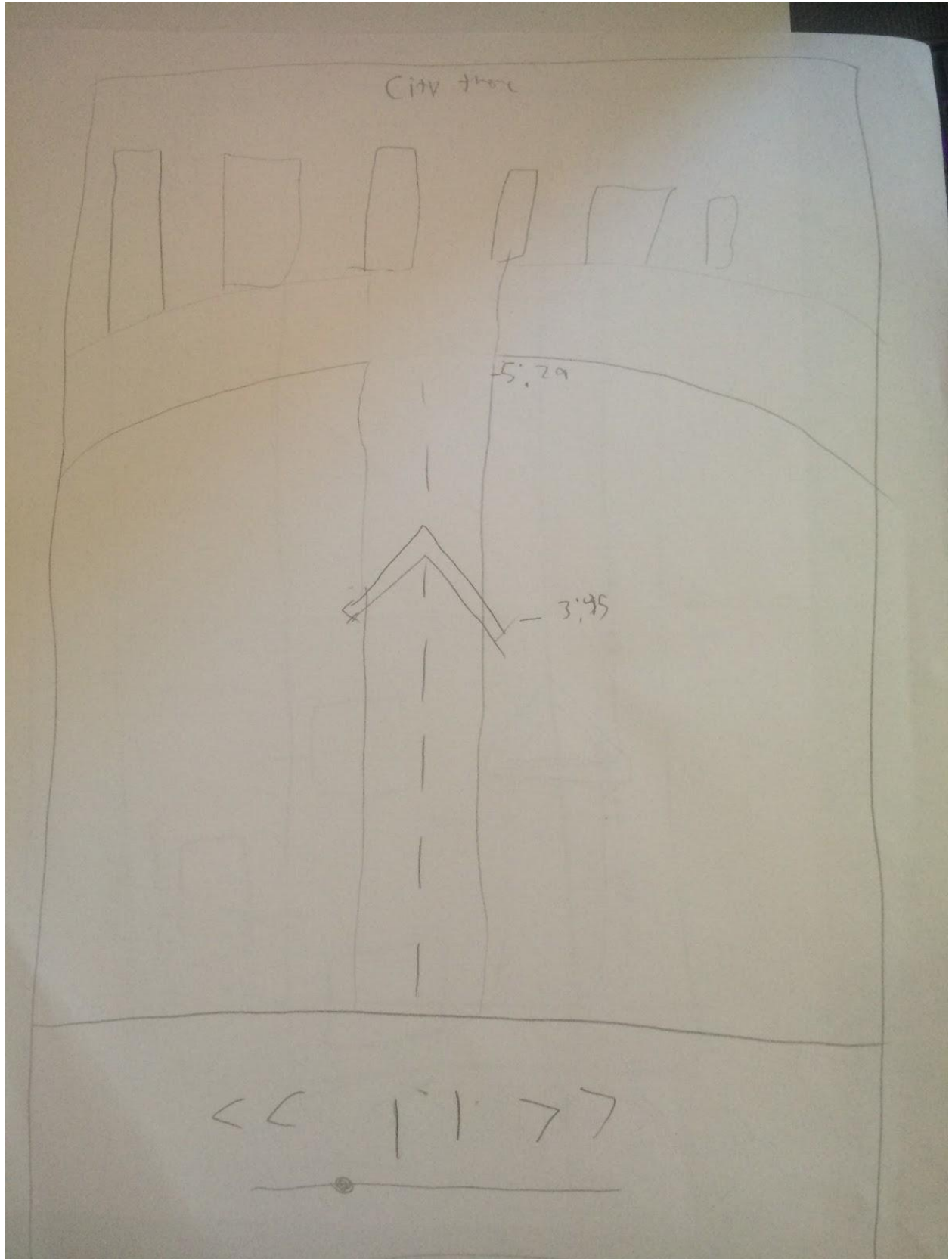
have an active interest in underground music, as well as those who only care about listening to new music. It provides low or high effort function, such that the user can choose how much they care about choosing their own path.
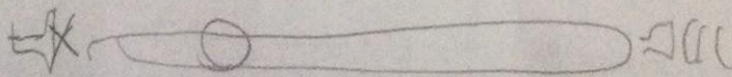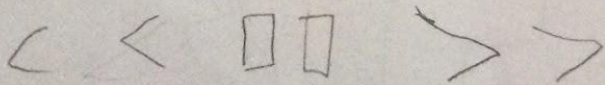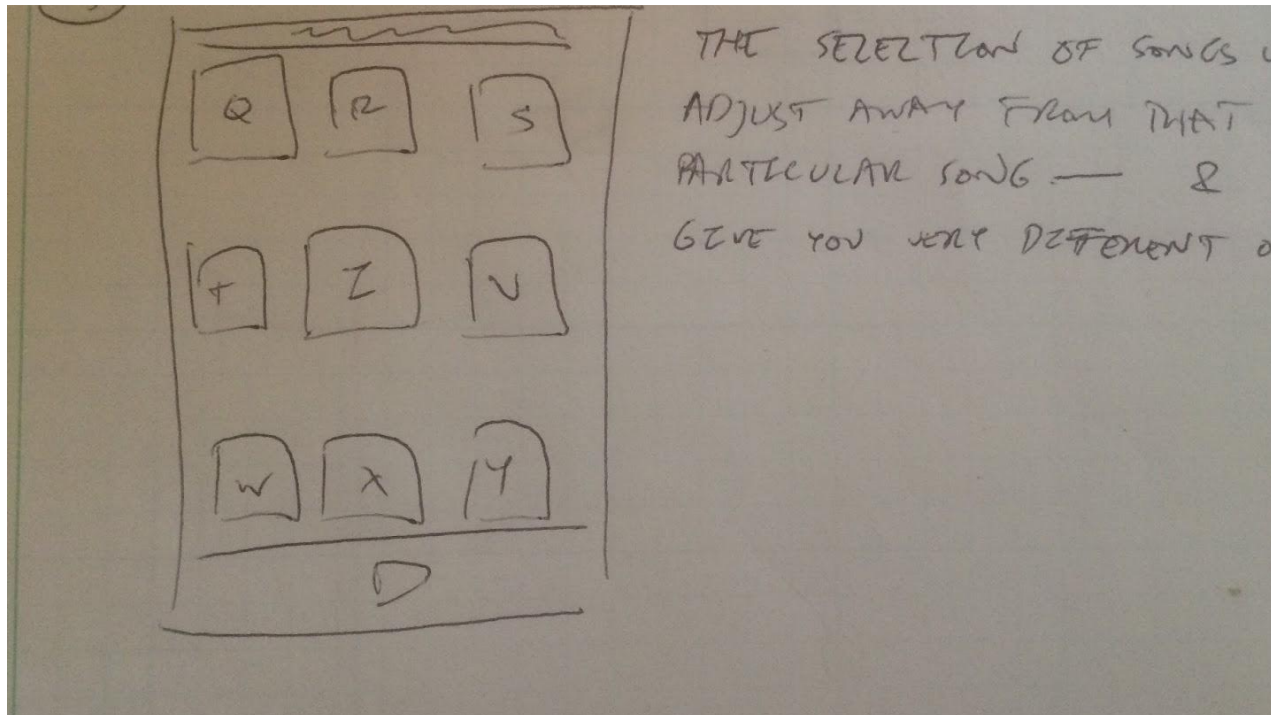
UI Ideas

3 prong music interface

City thing

-5:79

— 3:95

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Music Journey

Option 1

Option 2

Option 3

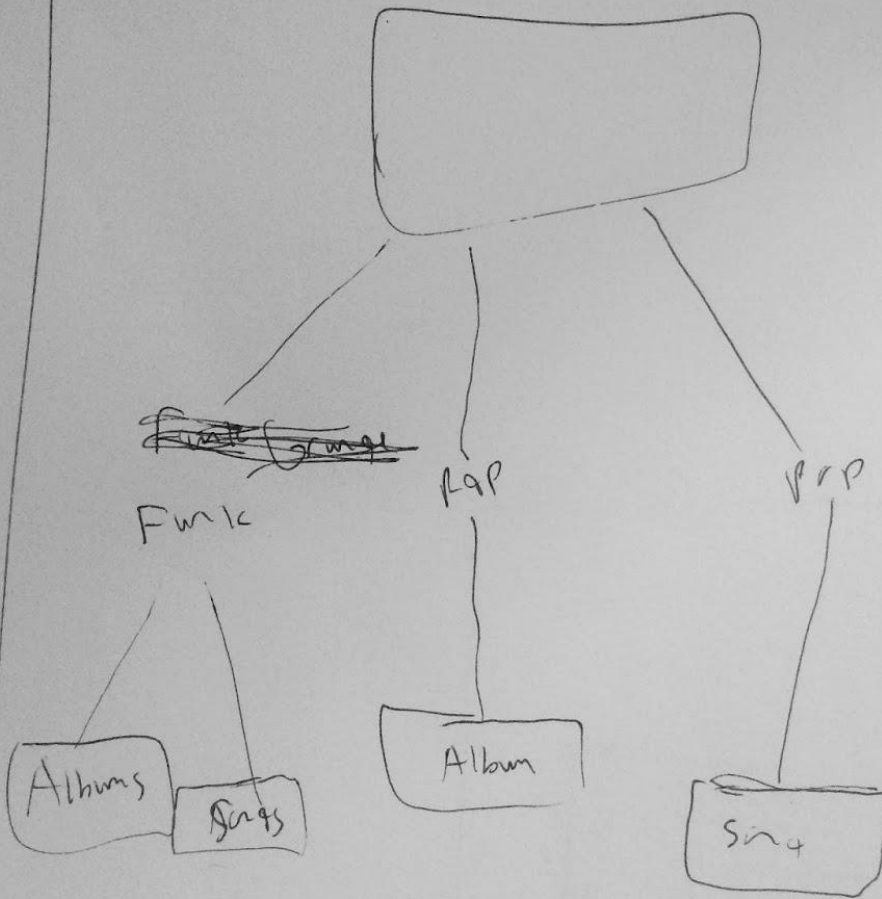< < ▯▯ > >

Music grid

THE SELECTION OF SONGS
ADJUST AWAY FROM THAT
PARTICULAR SONG ——— &
GIVE YOU VERY DIFFERENT

6

ARTIST
SONG
ALBUM

BUY HERE →
OR HERE →→

DOUBLE-CLICK ON AN A
COVER TO GET more more
MORE INFORMATION
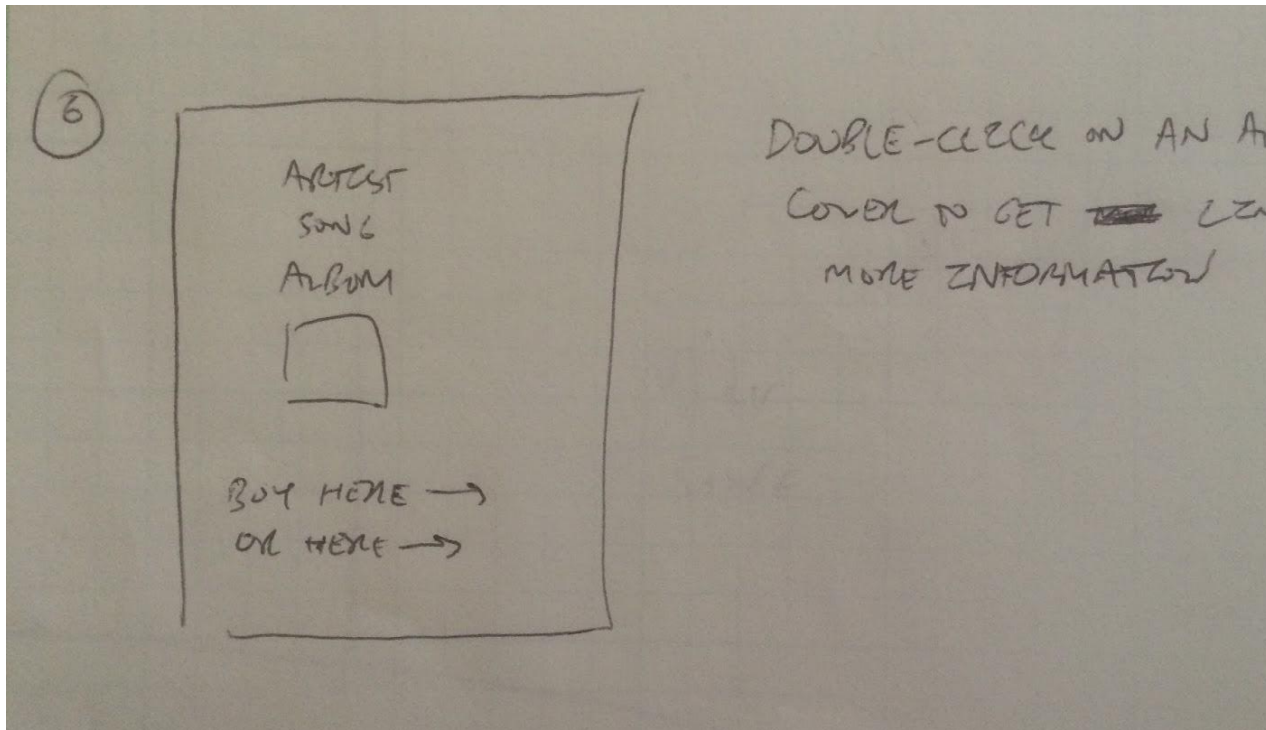
Music web: Artist view

Artist : ~~Nirvana~~ Red hot
chillipeprs

~~Funk Group~~
Funk

Rap

Pop

Albums

Songs

Album

Sing

Music web
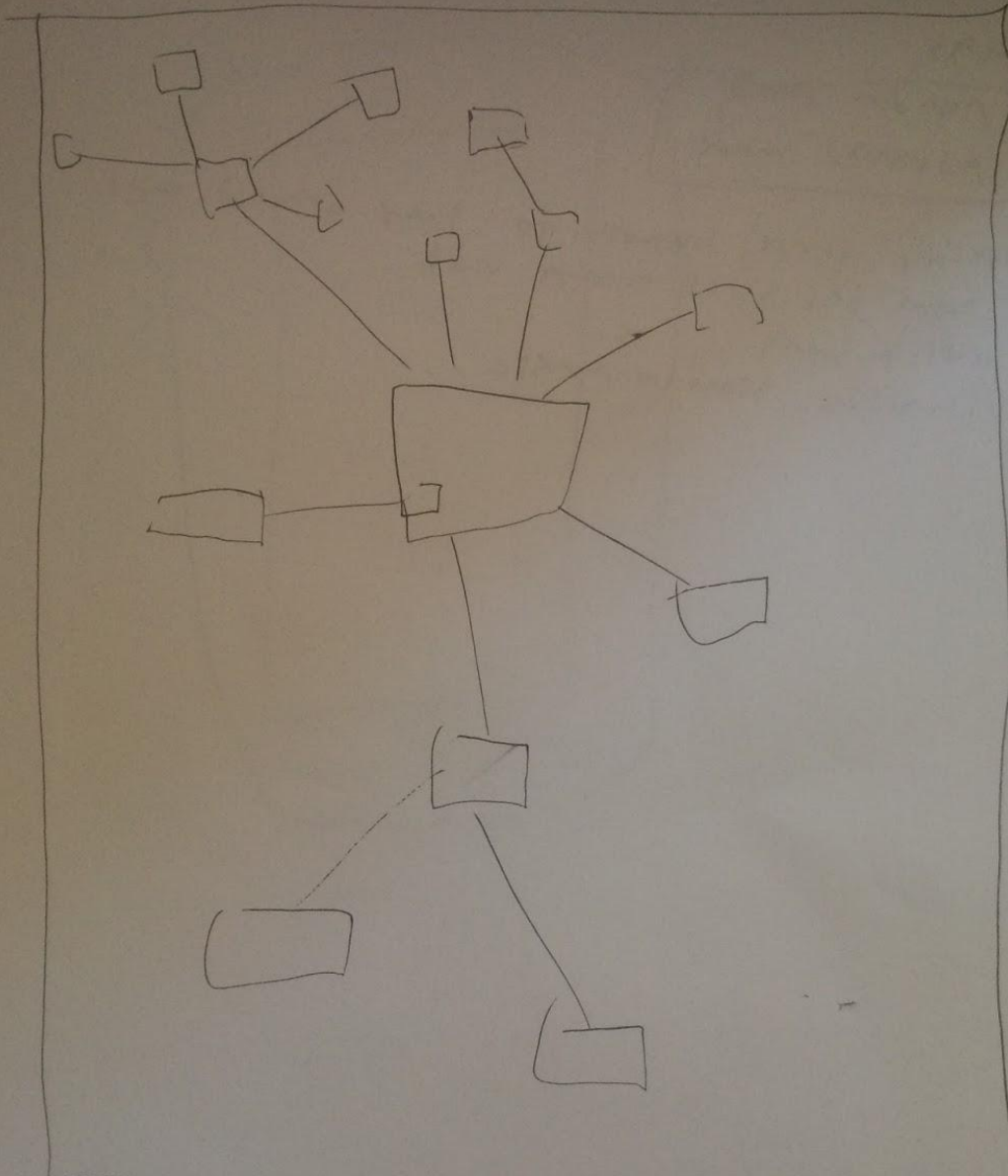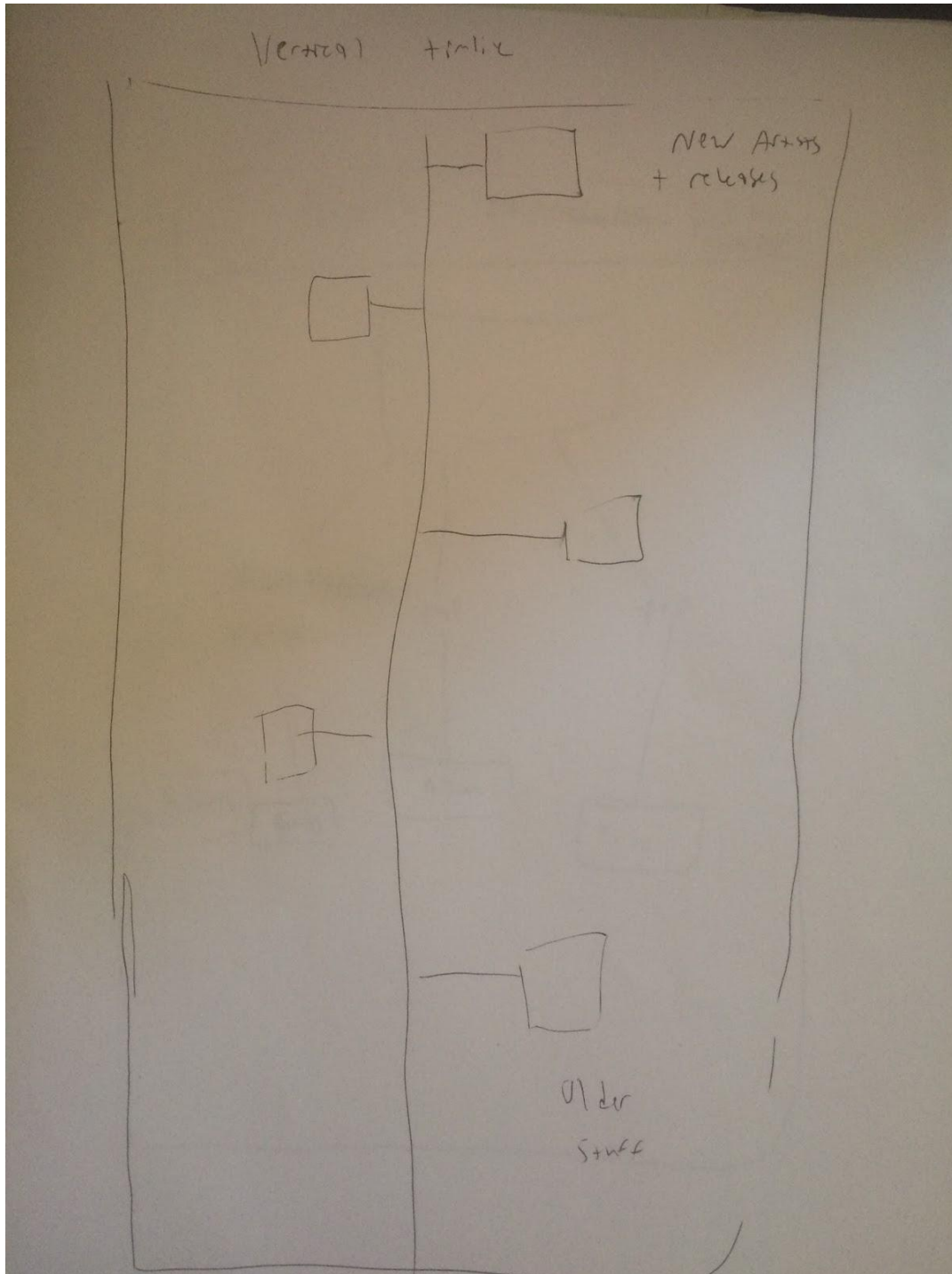
Phone

Genre: Garage punk

keywords:
blah   blah   words   music

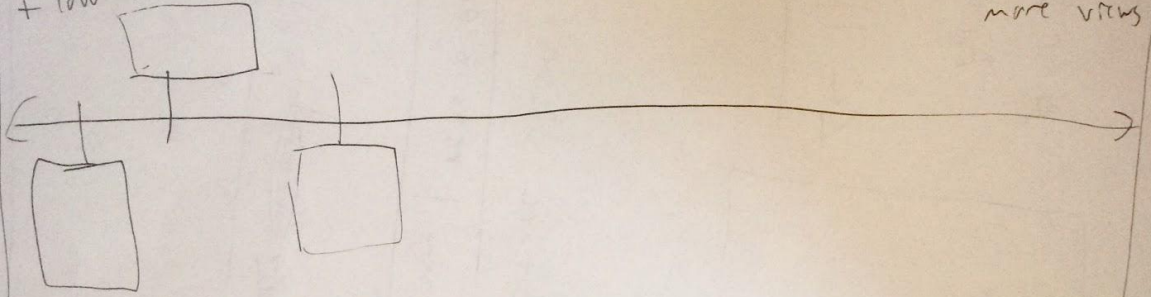   crwd   whatever

Music Timeline:

Newly released
+ low view numbers

Older
songs +
more views

settings

More discovery   More
                                   mainstream