PROJECT #2

REDESIGN SPOTIFY MOBILE APP

PLAYING FROM PLAYLIST
caring is loving

1:00   -1:21

Devices Available
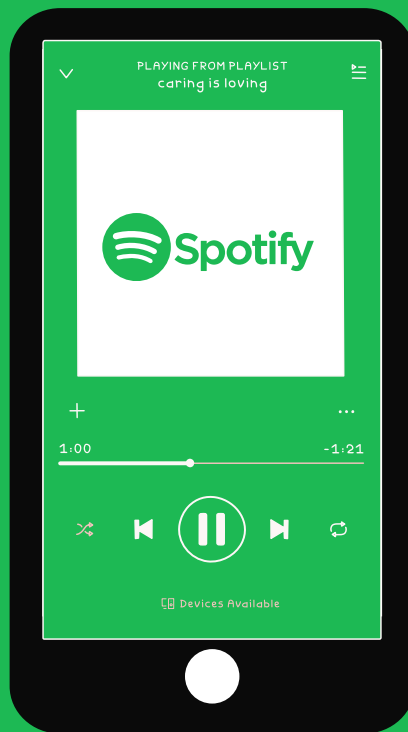
Presented By
Gavin Renken
Sophie Yun
Tong Yang
Yujing Wen
Ziqian Liao

TEAM
RESPONSIBILITIES

☑ Gavin Renken

- Brief Report
- Proposal – Research Questions
- Research Session I Moderator
- Research Session I/II Notetaker
- Presentation – Information Organization

☑ Tong Yang

- Research Activity – Create study ads and confirm attendance
- Research Activity I – Moderators & Notetakers
- Research Activity II – Notetakers
- Proposal – Processes
- Proposal – Interview Questions
- Protocol –Before & as participants arrive
- Protocol – Goals reminders
- Results summary – Summarizing quantitative data
- Presentation – Formatting

☑ Sophie Yun

- Brief Report
- Research Session I/II Notetaker
- Research Session I/II Moderator
- Proposal – processes & questions
- Protocol – Introduction & Warmup
- Presentation – Information Organization

☑ Yujing Wen

- Brief Report
- Research Section II–Moderator
- Research Section I–Notetaker
- Proposal–Processes and Questions
- Protocol –Goal/Notetaker Reminder
- Research Summary I– Process Analysis
- Research Summary II–Key findings
- Presentation – Information Organization

☑ ZIQIAN LIAO

- Protocol II – Introduction
- Proposal II – Interview questions
- Research Session II Notetaker
- Research Session II Moderator
- Results Summary I/II
- Presentation – Information Organization & Formatting

BRIEF REPORT

Our product idea is a redesign of the current mobile application of Spotify to help improve users' experiences while finding, organizing, and listening to their music.

From our research activities, we have identified the following problems. Firstly, on the homepage, users find some categories to be unrelated to their interests, making the homepage feel cluttered. Secondly, the recommendation system does not have the option to take in feedback from users. Users cannot signal how they feel about the recommended songs. Thirdly, users are confused about the difference between "download" and "like" features. Participants want to download individual songs instead of entire playlists but the only way to do so is by liking them. Lastly, users find it hard to search for songs with the current search bar. The cluttered categorization of information in the search bar inhibits them to easily locate what they are looking for. This issue stems to social features where users struggled to find and follow their friends.

To solve the problems for different aspects, we came up with several solutions. For the homepage, we could give users the option to customize the homepage content. For example, users can remove sections that they do not use (eg. podcasts, driving playlists if one is not a driver) to make the homepage more organized and clean. For the recommendation system, a "dislike" button can be added to the songs so that users can click it if they do not actually like it in the recommendation playlists. In this way, Spotify knows how users like the recommended songs and can improve their algorithm by eliminating similar songs for future recommendations. Thirdly, to clarify the confusion between the "like" feature and "download" feature, we could add the download icon for each individual song, distinguishing it from the like feature for each single song. Lastly for the search bar, we may consider adding a dropdown feature that allows users to differentiate their searches so they are able to take advantage of localized search functionalities. There can be one category for the local library and one for followers, so that users can find what they are looking for faster.

In the supplementary material, we have included the proposal, protocol, and results summary for the two studies that we conducted -- one process analysis and one semi-structured interview.

Through the course of our process analysis and semi-structured interview, we have identified several key findings for further investigation. One is that users are frustrated by the inaccuracies of Spotify's personalization algorithm. The participants studied would like to be able to provide additional feedback such that Spotify's algorithms can better tailor music to their tastes and preferences. Another takeaway was that users value being able to download playlists as a whole as well as individually downloading songs. Their current inability to do so leads to frustration. Another key finding relates to the homepage. Users found the homepage to be generally redundant and cluttered. This prevents users from taking advantage of its core functionalities. Further findings relate to Spotify's social features. Users would like greater integration of the desktop with the mobile application in terms of socialization features. This means being able to view their friends' listening habits. However, there is a delicate balance between the right amount of social features and too many that needs to be maintained. Many users additionally struggled to identify all of the application's current social functionalities, showing that a better onboarding process may be beneficial. Our last key finding involves the search bar. Users found the search bar to be unclear and lacking features that enable users to differentiate their search categories so that they can quickly find what they are looking for.

SUPPLEMENTARY PAGES

CONTENTS

RESEARCH ACTIVITY I

PROCESS ANALYSIS

Process analysis aims to capture the sequence of a task. We used process analysis to understand roadblocks in an unintuitive feature.

PROPOSAL I

Team Member Responsibilities 01

12:00–12:15
Moderator: Tong
Notetaker: Yujing, Sophie

12:15–12:30
Moderator: Tong
Notetaker: Yujing, Sophie

12:30–12:45
Moderator: Gavin
Notetaker: Yujing, Sophie

12:45–1:00
Moderator: Gavin
Notetaker: Sophie, Tong

1:00–1:15
Moderator: Sophie
Notetaker: Tong, Gavin

Research Questions 02

- #1 What is the typical users' interaction process with the homepage?
- #2 How intuitive is the process for downloading music?
- #3 In what ways does Spotify's recommendations impact users' playlist-making habits?
- #4 How do users approach finding and interacting with friends on the mobile application?

Product History 03

Spotify is a music streaming platform that offers digital copyright restricted recorded music and podcasts to its users. The key features for this app include:

- Searching for music based on parameters such as genre, artist, album, and playlist
- Creating, editing, and sharing playlists
- Following favorite artists and friends
- Receiving recommendations based on your listening history

No other research on Spotify has been done by our team.

Participants 04

- Students at UCLA taking class on the Fundamentals of User Experience
- Must have a mobile device that can download music apps
- Be active listeners of music on mobile applications

PROPOSAL I

05

Proposed Methods

Our moderators will be leading a process analysis to research Spotify's downloading, personalization, and socialization features.

06

Procedure

- Moderator and team introductions followed by participant introduction.

- Go over the procedure and rules that will be enforced for the duration of the experiment: do not edit yourself and all questions and frustrations matter.

- Ask first set of research questions and tasks aimed at delving into the homepage interaction process.

- Ask second set of research questions and tasks focusing on creating a process map for how users download music.

- Initiate third set of questions and discussion on Spotify's recommendations.

- Go through process of searching for and connecting with friends on Spotify.

- Wrap up with participant by summarizing the results of the study and asking for feedback and final suggestions.

07

Focused Processes

Process#1: How users normally access and utilize homepage
- What is the first thing that you notice on this page?
- Scroll down this page. What are the items that you want to learn more about?
- What do you expect to see under this title?Is there anything that you did not expect on this page?
- What triggers you to use this horizontal scroll?

Process#2: How users download music into their mobile device
- Have you ever downloaded a song?
- Under what circumstances, would you want to download a song?
- What are the reasons behind?*gauge whether the user knows/can figure out how to download songs

Process#3: Find your recently played songs and Spotify's recommended songs
- What's your habit of listening to songs? Do you create your own playlist based on styles? Or do you listen to songs by the sequence from the latest one you add to the playlist?
- Find your recently played songs on Spotify
- Find the Spotify's recommendation playlists for you, pull up "Made for You" recommendations?
- Do you think the songs in the "Made for You" lists fit your appetite? Do you think you would like this song?

Process#4: Connecting with friends
- Do you follow your real friends in life on Spotify?
- Why or why not? Is it out of obligation, interest in their music?
- Try to search the user "Jessicoala", "helenty520" on Spotify. What is the first step you try to find the user on the mobile end?
- Are you able to find the user? Do you really wanna make friends with your real–life friends on Spotify?

PROTOCOL I

Before Participants Arrive

Technology
- Team members who will be joining the focus group are familiar with basic Zoom functions, such as chat, recording, hand-raise, and reactions.
- All team members have downloaded Spotify on their phones.
- Enable the waiting room on Zoom to make sure participants can join without interrupting the previous session.

Communications
- The team has prepared a general outline for the process analysis study group.
- All team members are familiar with the outline and understand the main purpose of the study group.

Instructions
- Team members who will be notetakers know how to instruct participants to download Spotify on their phones if they haven't already done so.

As Participants Arrive
- Meet and greet the participants as they join the Zoom meeting.
- Create a welcoming atmosphere so that participants are more comfortable with sharing their opinions later in the study group (music).
- Answer any questions they have
- Ask participants to keep their cameras on if possible

Introductions

"Hello, thank you for taking the time to join our study! We are a group of students who like listening to music and are interested in making some improvement on one of the most popular music apps, Spotify. Today, you are here to help us improve the interface of its mobile app. You will be guided to go through certain processes and share your experience on them. This study will take about 15 minutes, and you will get credits for PSYCH 188.

Before we get started, I would like to introduce ourselves. My name is __, and I will be the moderator for this study. My colleague __ will be taking some notes throughout the session. There might be some time when my colleague is not looking at the screen and is typing, but we want to assure you that we are always listening and paying close attention to your answer. We are recording this session and the recording will be only available for our group members to review. [PAUSED FOR A FEW SECONDS]

To let the study go smoothly, please have your mobile phone with you and with the Spotify app downloaded. Please tell us now if you have any problem downloading the app, and tell us when you are ready. (Wait for a few seconds..)

Is there any question?"

Warmup

"Let we start off by getting to know a little bit more about each other (send Google form to collect demographic information. Please tell us your name, year, pronouns? What is your overall experience with listening to music on your mobile device?"

Demographics Google Form:
https://forms.gle/Yznr8vBoiXFidoFG6

Topic Discussion Guide

Topic	Example Statements	Duration	Goal
Introduction	Today's study will take around 15 minutes. We will be focusing on your experience with Spotify.	30 seconds	Researchers introduce the flow of today's focus group. Estimate a time for participants and clarify any confusions they have.
Warm up	Please share your name, year, and major. What is your overall experience with listening to music on your mobile device?	1 minute	Let participants get comfortable with sharing.
Selected Processes	Let's walk through the homepage, socialization features, downloading music, etc.	12 minutes	Expose participant to two of the processes enumerated in the research questions
Summary	To summarize what we have said today…Does this sugary capture what we discussed?	1 mins	Recap and let participants validate/refuse the process.
What's missing?	What are some things you would like to mention that we haven't covered today?	30 seconds	Participants can share their additional ideas freely.

Goal Reminder

- To find out what features on Spotify are most or least intuitive for users
- To zoom in on roadblocks users encounter on those unintuitive processes
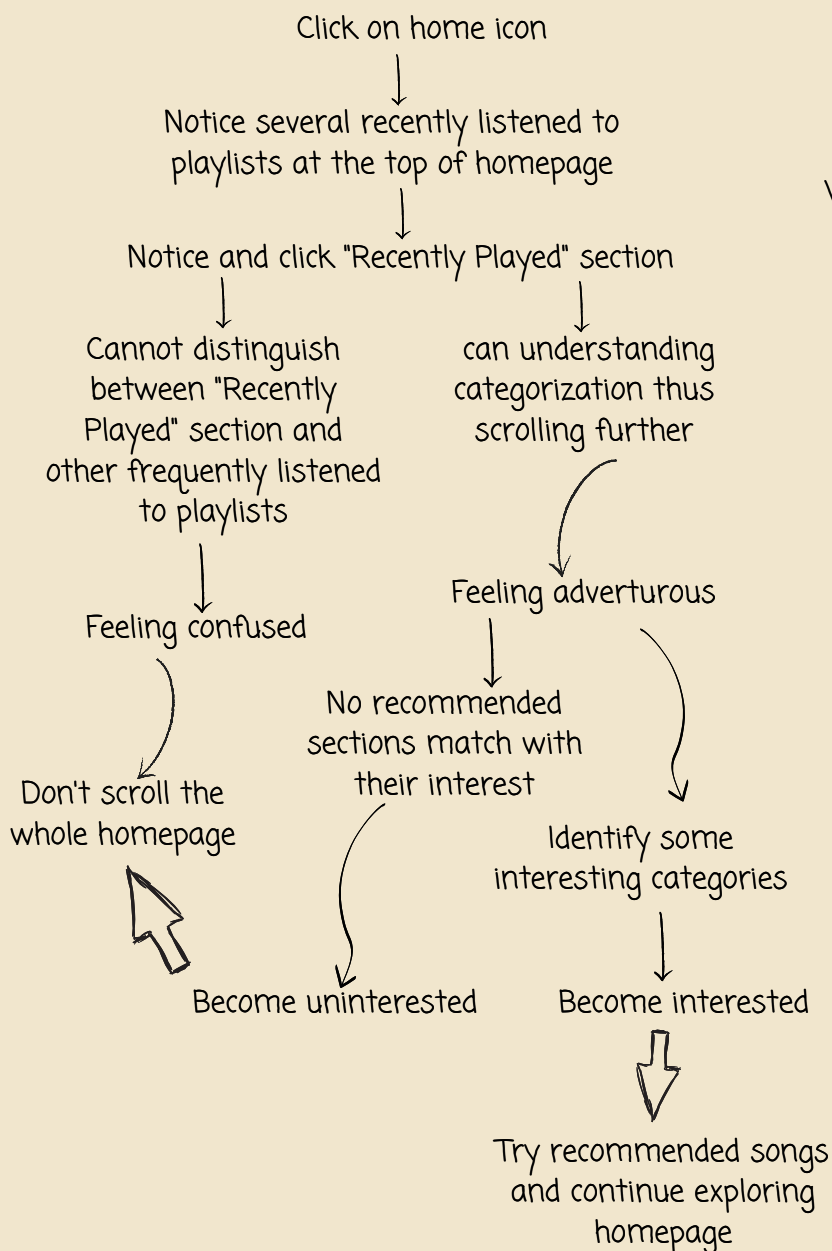- To understand users' rationale behind why they find a process flows
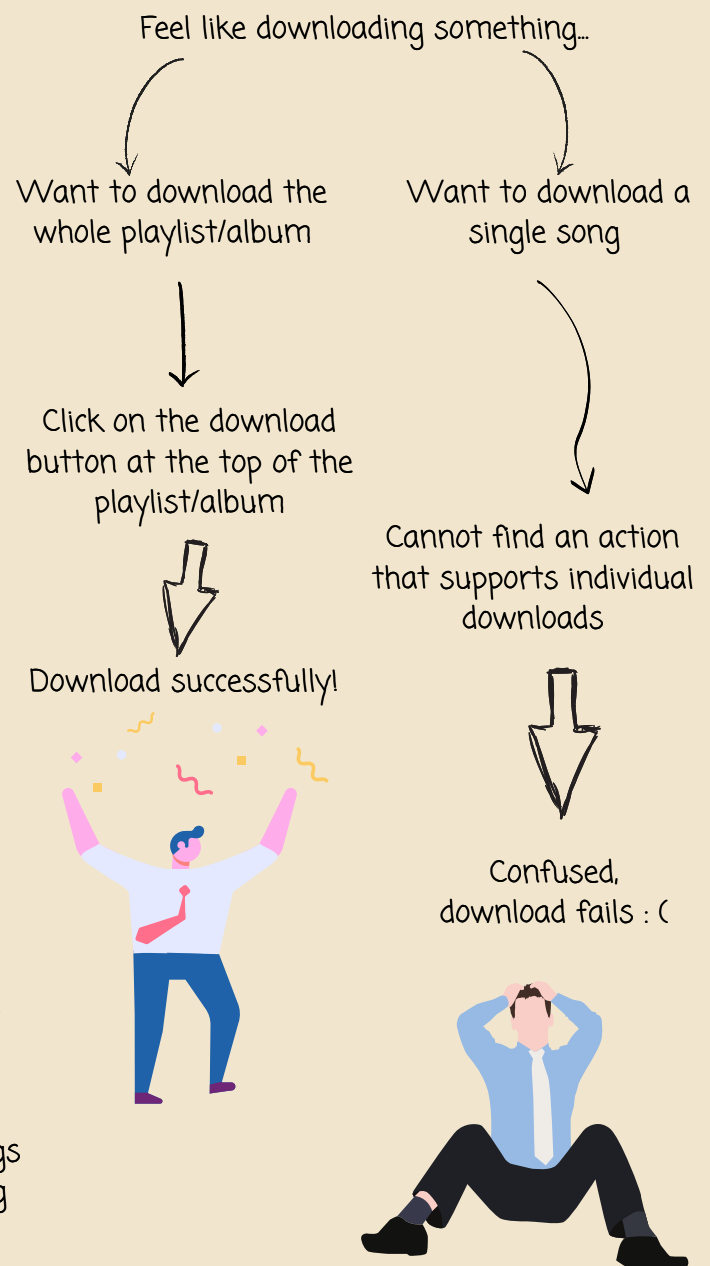
Notetaking Reminder

Keep track of:

- When participants get stuck on one of the tasks
- Participants positive/negative feedbacks on the features/functions in the task
- Users' satisfaction/dissatisfaction when conducting the tasks
- What parts of the process the moderator hasn't covered
- Time left

RESULTS SUMMARY I

**Process Map #1
How users explore and
utilize homepage**

**Process Map #2
How users download
music into local library**

Click on home icon

Notice several recently listened to
playlists at the top of homepage

Notice and click "Recently Played" section

Cannot distinguish
between "Recently
Played" section and
other frequently listened
to playlists

can understanding
categorization thus
scrolling further

Feeling confused

Feeling adverturous

Don't scroll the
whole homepage

No recommended
sections match with
their interest

Identify some
interesting categories

Become uninterested

Become interested

Try recommended songs
and continue exploring
homepage

Feel like downloading something…

Want to download the
whole playlist/album

Want to download a
single song

Click on the download
button at the top of the
playlist/album

Cannot find an action
that supports individual
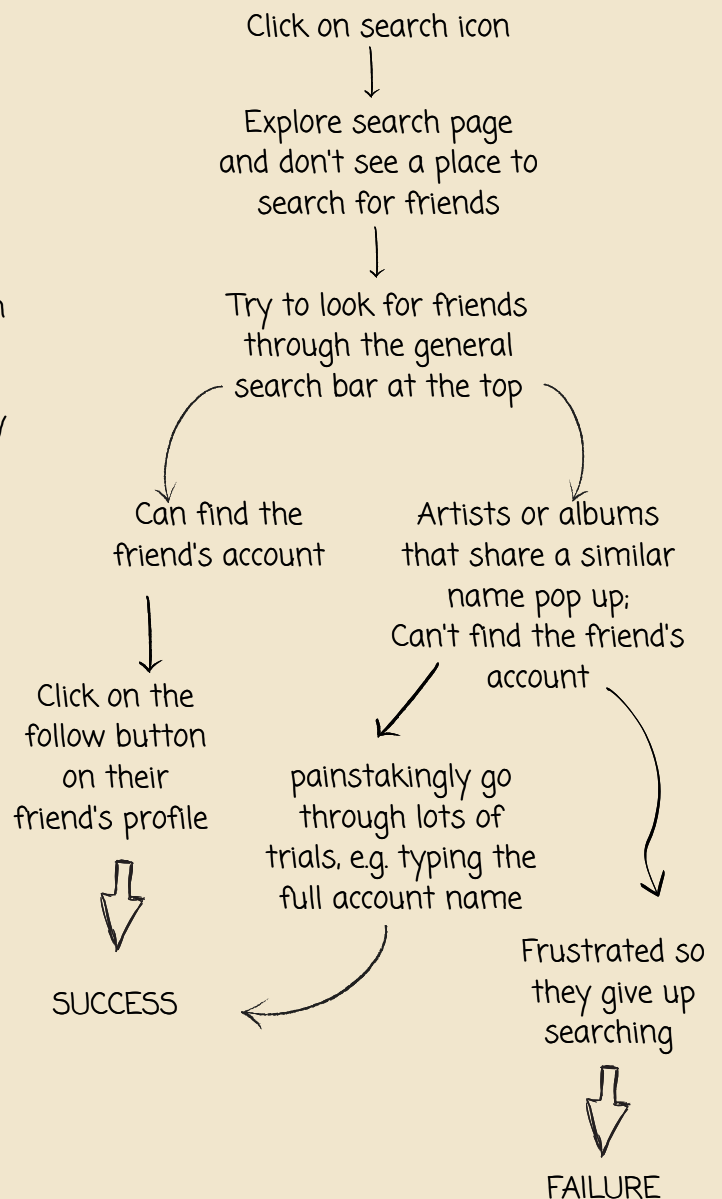downloads

Download successfully!

Confused,
download fails : (

RESULTS SUMMARY I

**Process Map #3
How users explore
Spotify's
recommendations**
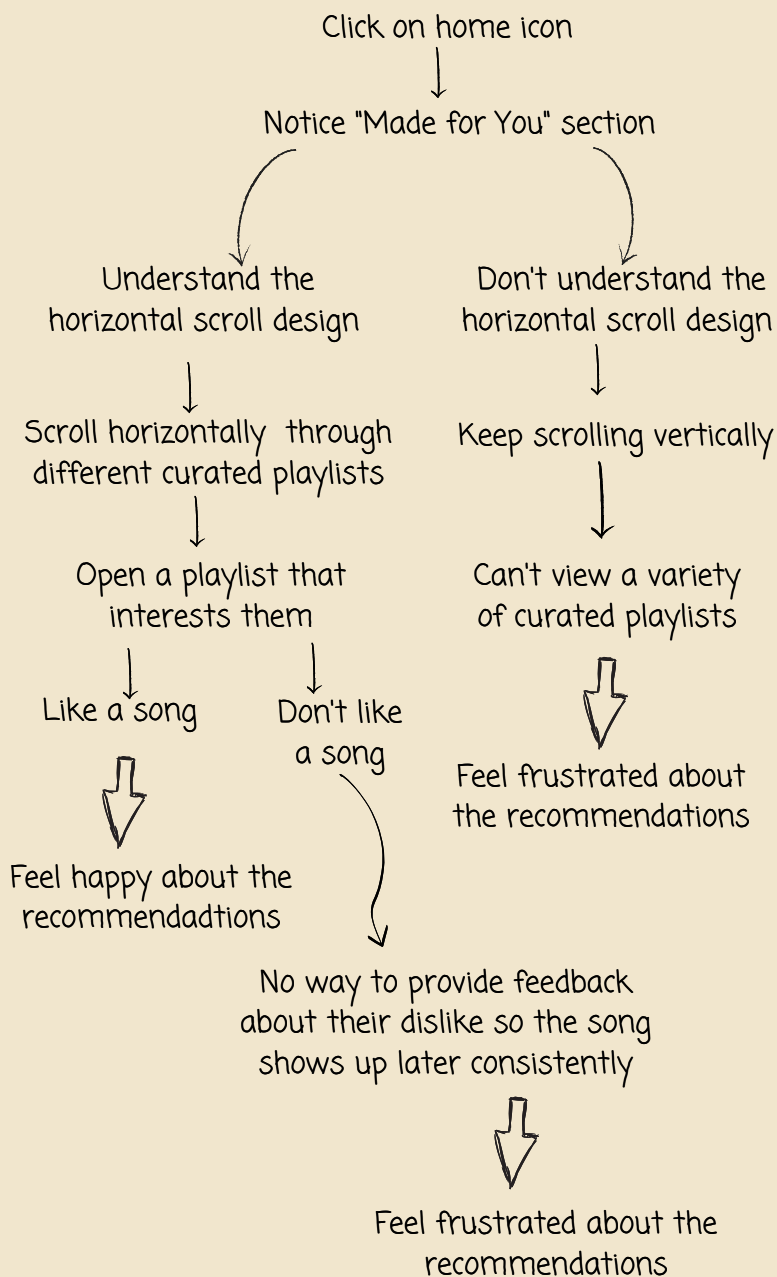
**Process Map #4
How users connect
with friends**

Click on home icon

↓

Notice "Made for You" section

Understand the
horizontal scroll design

Don't understand the
horizontal scroll design

↓

Scroll horizontally through
different curated playlists

Keep scrolling vertically

↓

Open a playlist that
interests them

Can't view a variety
of curated playlists

Like a song   Don't like
a song

↓

Feel frustrated about
the recommendations

Feel happy about the
recommendadtions

No way to provide feedback
about their dislike so the song
shows up later consistently

↓

Feel frustrated about the
recommendations

Click on search icon

↓

Explore search page
and don't see a place to
search for friends

↓

Try to look for friends
through the general
search bar at the top

Can find the
friend's account

Artists or albums
that share a similar
name pop up;
Can't find the friend's
account

Click on the
follow button
on their
friend's profile

painstakingly go
through lots of
trials, e.g. typing the
full account name

Frustrated so
they give up
searching

SUCCESS

FAILURE

RESEARCH ACTIVITY II

SEMI-STRUCTURED INTERVIEW

Interviews allow in-depth information to be gathered. We use semi-structured interviews to gather qualitative and quantitative data.

PROPOSAL II

Team Member Responsibilities
01

5:00–5:15
Moderator: Yujing
Notetaker: Ziqian, Sophie, Gavin, Tong

5:15–5:30
Moderator: Yujing
Notetaker: Ziqian, Sophie, Gavin, Tong

5:30–5:45
Moderator: Sophie
Notetaker: Ziqian, Gavin, Yujing, Tong

5:45–6:00
Moderator: Ziqian
Notetaker: Sophie, Gavin, Yujing, Tong

6:00–6:15
Moderator: Sophie
Notetaker: Ziqian

Participants
02

- Students at UCLA taking class on the Fundamentals of User Experience

- Must have a mobile device that can download music apps

- Be active listeners of music on mobile applications

Product History
03

Spotify is a music streaming platform that offers digital copyright restricted recorded music and podcasts to its users. The key features for this app include:

- Searching for music based on parameters such as genre, artist, album, and playlist
- Creating, editing, and sharing playlists
- Following favorite artists and friends
- Receiving recommendations based on your listening history

No other research on Spotify has been done by our team.

Research Questions
04

1. In what ways does Spotify's limited downloading functionality lead to user frustrations?
2. How do users react to providing more input to help tailor Spotify's recommendations to their tastes and preferences?
3. What behaviors does the organization of the homepage elicit in users?
4. To what extent do users value Spotify's current social features and like to see them modified and added upon?
5. How does the organization of the current search bar prevent users from achieving their ultimate goals?

PROPOSAL II

05

Proposed Methods

Our moderators will be leading an one-on-one semi-structured interview to research Spotify's downloading, personalization, and socialization features.

06

Procedure

- Moderator and team introductions followed by participant introduction
- Go over the procedure and rules that will be enforced for the duration of the experiment: do not edit yourself and all questions and frustrations matter
- Ask the prepared general introduction questions
- Ask the prepared questions about the features that participants mentioned using
- Ask follow up questions based on participants' answers
- Wrap up with participant by summarizing the results of the study and asking for feedback and final suggestions

07

Interview Questions

Making **download process** more intuitive:
- Have you ever experienced issues with the downloading process?
  - If yes, please tell us more about this experience. If not, please elaborate more on what you like about the current downloading design.
- Did you ever get confused by the difference between the downloading feature and liking feature?
  - Do you distinguish the liking and downloading features?

Interview Questions Continued

Improving **recommendations** – Dislike feature
- Evaluate your current recommended songs. To what extent do you like these songs?
  - Would you like to provide feedback on your current recommendations for Spotify to improve?

Improving **homepage content organization**:
- When navigating the homepage, what categories/columns do you utilize the most?
- Can you always find what you are looking for in an intuitive way at the homepage? [All participants think that the homepage is cluttered with information. Although there are some personalized recommendations, the customization is not sufficient.]
- How do you like the organization on the homepage so far?
- [If interviewee mentions that they find the homepage confusing…]: What are potential solutions that you would like to see?

Socialization features:
- What is your current understanding of Spotify's social features?
- Do you think the social features of Spotify are too much, too little, or just about the right amount?
- Do you follow friends on Spotify?
  - Would you like to be connected with friends on Spotify?
- Do you like to share your listening activities to others?
  - Would you prefer to keep your listening activities a more private thing?
- Would you like to share songs with friends? If you currently do so, how do you share songs (eg. Messenger, Instagram)?
  - Would you like to share songs within the Spotify App?
- Would you appreciate the development of more socialization features in Spotify? If so, what type of features would you like to see? Where should these features be located?

Search bar:
- To your understanding, what functionalities does the current search bar have?
  - Have you tried to search for your friends on Spotify?
- Would you like to see smaller search features in addition to a general search feature?

PROTOCOL II

Before Participants Arrive

Technology
- Team members who will be joining the interview are familiar with basic Zoom functions, such as chat, recording, hand-raise, and reactions.
- All team members have downloaded Spotify on their phones.
- Enable the waiting room on Zoom to make sure participants can join without interrupting the previous session.

Communications
- The team has prepared a general outline for the interview.
- All team members are familiar with the outline and understand the main purpose of the interview.

Instructions
- Team members who will be notetakers should know how to instruct participants to download Spotify on their phones if they haven't already done so.

As Participants Arrive

- Meet and greet the participants as they join the Zoom meeting.
- Create a welcoming atmosphere so that participants are more comfortable with sharing their opinions in-depth in the interview (music).
- Answer any questions they have.
- Ask participants to keep their cameras on if possible.

Introductions

Hello, thank you for taking the time to join our study! Before we get started, I'd like to introduce ourselves to you. Here is XXX from Group 12, and I will be taking the role of the moderator for this session, and my colleagues XXX and XXX will be taking notes.

Today, we are here working together to improve the experience in using the music app Spotify. We may ask you a set of close-ended or open-ended questions about your experiences with Spotify, it would be appreciated if you could be honest about your answer. Please feel comfortable to let me know even if you don't have an answer to the question. This study will take about 15 minutes, and you will get credits for PSYCH 188.

Do you have your mobile phone with you and with the Spotify app downloaded? [NO] – Please download the app as it will definitely make your session smoother. If you encounter any problems meanwhile please let me know. [Yes] – Please open the app and let me know when you are done.

Do you mind if I start recording the session from now on? It will only be used for the purpose of our study and will not be distributed anywhere else. [PAUSE FOR THE CONSENT AND START RECORDING] Thank you!

Warmup

"Let we start off by getting to know a little bit more about each other (send Google form to collect demographic information. Please tell us your name, year, pronouns? What is your overall experience with listening to music on your mobile device?"

Demographics Google Form:
https://forms.gle/Yznr8vBoiXFidoFG6

**Topic
Discussion
Guide**

Topic	Example Statements	Duration	Goal
Introduction	Today's study will take around 15 minutes. We will be focusing on your experience with Spotify.	30 seconds	Researchers introduce the flow of today's focus group. Estimate a time for participants and clarify any confusions they have.
Warm up	Please share your name, year, and major. What is your overall experience with listening to music on your mobile device?	1 minute	Let participants get comfortable with sharing.
General Questions	Please describe your most frequently used feature on Spotify.	2 minutes	Understand participants' favorite features on Spotify and identify features to dive into in the next session.
Follow-up Questions	Let's walk through questions regarding the homepage content organization, socialization features, downloading music, recommendation, etc.	10 minutes	Based on participants' answers to the general question, ask participants our prepared questions in specific aspects of the app user experience to gain more insights on our redesign project.
Summary	To summarize what we have said today…Does this sugary capture what we discussed?	1 mins	Recap and let participants validate/refuse the process.
What's missing?	What are some things you would like to mention that we haven't covered today?	30 seconds	Participants can share their additional ideas freely.

Goal Reminder

- To find out what features on Spotify are most or least intuitive for users
- To zoom in on roadblocks users encounter on those unintuitive processes
- To take advantage of in–depth conversations to gather both qualitative and quantitative data

Notetaking Reminder

Keep track of:
- Participants positive/negative feedbacks on the features/functions in the task
- Users' satisfaction/dissatisfaction when conducting the tasks
- What part(s) of the research questions moderator hasn't covered in the interview
- Time left and the next participant in the waiting room

RESULTS SUMMARY II

Socialization Features
- Participants would like to be able to view what friends are listening for on their mobile homepage such that the desktop and mobile versions are fully integrated
- Users care about the ability to toggle with privacy settings so that they can elect to choose what activities their friends can view
- Participants want to have follower notifications so they can instantly know who followed them
- Users value social aspects geared to music-contexts. Participants did not want to see the over-expansion of Spotify's social features

Downloading
- Participants notice the icon for downloading the whole album or the whole playlist, but there is no specific one for individual songs
- Usually just click the like button for each song because there is not another one downloading the single song
- Sometimes may assume that liking the song is downloading the song because it is added to the personal list, and do not realize that the songs are not in the local library until the loss of internet connection (eg. airplane mode)

Homepage & organization
- The first impression on the homepage in general is organized, but as users continue to scroll, they find a lot of categories overlapping.
- The homepage is cluttered with several unused features (eg. podcasts), which is acceptable when the recommendation first shows up, but may be annoying if continue to be on the homepage
- Usually do not scroll the entire length of the homepage.

Search Bar
- The searching match is not that intuitive to use, and the matched keywords do not come up in the search that quickly like a normal social app. To search for a friend, one would need to type their full name.
- General search bar does not distinguish the searching between searching within the offline local library and the search of all online music resources; when searching for local songs/artists, a local search feature may help access the liked/downloaded songs more efficiently

Recommendations
- Participants generally like the most part of the feature, while there are still cases where participants find music that does not really fit their tastes in the recommendation
- People want to have a more diverse and longer list of recommendations.
- Our suggestion is to add the "dislike" feature so the algorithm could be helpful in filtering out those that do not fit the appetite.

QUANTITATIVE DATA

DOWNLOAD FEATURE

Have you ever experienced issues with the downloading process?

3/5 of participants experienced confusion when using the downloading feature or don't know Spotify allows downloads.

HOMEPAGE CONTENT ORGANIZATION

Can you always find what you are looking for in an intuitive way at the homepage?

5/5 of participants think that the homepage is cluttered with information. Although there are some personalized recommendations, the customization is not sufficient.

SOCIAL FEATURE

Do you follow your friends?

5/5 of participants follow friends on Spotify.

Do you like to share your listening activities to others?

3/5 of participants would like to keep it private

Do you think social features on Spotify are too much, too little, or just about the right amount?

1/5 too much

1/5 just about the right amount

3/5 too little

Would you appreciate the development of more socialization features in Spotify?

4/5 mention that they appreciate more social features, but 2 participants specifically think such features should only be music-centered.

Have you tried to search for your friends on Spotify?

4/5 of participants have tried to search for friends on Spotify.