

# Spotify: User Research

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User Research Report

Group 3, Individual Assignment 2

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## Introduction

Users are the only constant factor in the ever changing world of technology and a very important factor at that. Users are the main reason/source for improvement and the biggest motivation of creation. Every website is used by them and hence, they are the best critic for it. User research is the best way to understand how users interact with the website which helps in improving and upgrading the website.

This user research is carried out to gain insight on how the users interact with the European based digital music streaming platform, Spotify. This study has adopted two methods for user research, a questionnaire and an interview. Data has been collected on the different users of Spotify, the reasons they use Spotify, what they love about it and their issues with the application. It has also been compared to its competitors to get a better understanding of the user's expectations.

Spotify claims "With Spotify, it's easy to find the right music or podcast for every moment – on your phone, your computer, your tablet and more" (Spotify Official). This research takes a glimpse into how well Spotify has been able to keep up with their claim and the improvements they can make.

## Methodology

Two methods were adopted for this user research. A quantitative research was done using a questionnaire and a qualitative research was done by an interview.

## Questionnaire

The questionnaire was carefully designed in order to obtain users' background information, technology usage, attitude scales, interest in music, Spotify usage and other streaming platform's usage. The questionnaire was created on Google forms and send out to various participants via Whatsapp, iMessage and Google Hangouts. It was easier to reach more people via Whatsapp groups.

The main focus of the research was to understand the users. The way to go about this was to first explore who the users are. This was done by adding questions about age, ethnicity, gender, educational status and employment status. Since Spotify has a huge user base, grouping the users by their background serves as a good base for understanding the experience, goals and expectations of the different user groups. For these questions, the options were provided of possible employment status, gender, race and age options were grouped. Other than getting a rich background content, it was important to know how well acquainted the users are with technology. The user experience differs on the comfort level with the primary domain of the application, that being technology here. Users who are very comfortable with using various apps will have different expectations from the navigation than from the users who aren't that handy with mobile phones. The questions designed for this were asking how often do the users use their phones for various activities like texting, calling, pictures etc and then there were questions to understand how the users feel while using technology. These questions were given a NIH scale (reduced from 10 to 8) to answer.

Once we know how technology plays a role in their lives, we slowly dive into Spotify by asking when, why, how much they listen to music and which services they use to stream it. This set was created to understand user's relationship with music and Spotify. After this there are two sets, for Spotify users and non Spotify users. The questions in both the sets are the same except for in the set for non Spotify users, the questions are for the streaming service they use. These questions are about their music streaming app usage, goals and accomplishments of the goals, open ended questions regarding the same and likes and dislikes of the application. There is an additional question to collect data on why the users do not use Spotify. This part of the questionnaire was crucial to analyze user's interaction with Spotify. It covers the how oftens, whens, whys and likes & dislikes and also provides us with data for competitive analysis.

## Participants

The targeted audience for the study was anyone who listens to a lot of music. The idea was to include various groups of users to find patterns in the data for key analysis. First the survey was sent to graduate students and working professionals. Since this group of people fall in the "millenials" category, they have seen the tech world rise and experienced it first hand. They are the first users of most applications which are beaming today. They have seen the basic design

and seen it upgrade, they know the tech potential and know the reality of it. This set of participants were chosen because of their experience with the real world technology and the input they can provide to understand the usage of Spotify. The questionnaire was then sent to multiple students studying in an international boarding high school in India. Knowing the kids at the prime of teen years listen to music much more compared to other age groups (Statista, 2019). Participants of the younger age group want things quicker, faster and better. They were selected to understand the user's expectation of Spotify, as these kids set bar for the next generation. So many participants were also considered in hopes to collect enough data for all the four user groups; Casual, Motivator, Tune-out and Musician. More or less, data from all the participants will be invaluable and contribute to the entire improvement and resign of the application.

The participants first had to consent to the research. A total of 51 participants gave their consent for the study. Out of the total, 23.5% are under the age of 18, 58.8% are between the ages of 18- 24 and 17.6% are between the ages of 25-34. The male to female ratio is 51:49, the group of participants come from different cultures and ethnicities with 43 being Asian, 3 white, 1 hispanic/Latino and 3 were not comfortable to disclose that information.

## Interview

A semi-structured interview was conducted with 4 participants. The basic question format was kept the same as that of the questionnaire but the participants were carefully recruited. The starting idea of the interview was to understand the user usage of technology. Since I already know all the participants personally, I did not ask them many questions based on their background but rather utilized my time on trying to understand how they use technology and focus on their particular use of the music streaming service. Just like the survey, I proceed with how often they use Spotify, when they use Spotify, why they use Spotify and which are their most liked features and suggestions for improvements. As I recruited only Spotify users I did not need to ask them if they use Spotify but I did ask them which other services they use and what makes them switch to those from Spotify. I took advantage of the freedom an interview gives you to manipulate the interview questions based on the user. Most of the questions I asked were partly informal and more of a discussion. I haven't included the entire interview but there is a brief of each interview in the appendix outlined by the survey questions.

The interviews were conducted over different mediums. First user's interview was conducted over a video call using Facetime, second user's interview was conducted on a voice call using Whatsapp and the next two users' interviews were conducted in person at a university library.

## Participants

The first user is a Business Analyst based in D.C and creates music with his band as part-time and passion. His 2 albums have been on Spotify since 2017 with over 3000 listeners. Spotify is

his all time favourite music streaming app but that has not stopped him from voicing his strong opinions about the app. Let's call him "The Musician". Even though I sent the survey to a lot of people I was not sure if I could get a musician's response so I had to include one for the interview. He was recruited because he has his music up on Spotify and this would give the research a real musician's opinion.

The second user is also a working professional in Finance based in Bangalore, India. He worked in America for 4 years as a Marketing Analyst in a major credit card company. Known as a tech critic, he has a passion for music since his teens years and has loved every music genre to the fullest until he settled on old school rock-n-roll. He has used Spotify for almost 7 years now. We will call him "The Critic". The Critic was asked to participate in the research because he uses multiple streaming platforms and is a music critic as well as a professional tech critic.

The third user is a graduate student and a part-time employee. He is currently living in Philadelphia but plans to move to New York for his full time job. His passion for music began when he was handed a guitar at the age of 7. He is a casual Spotify user, fairly new but has a few mindful suggestions for the app. He is "The Novice". It was decided to interview him because he unlike the previous participants he is a student and it is crucial to get collect data from people of different employment status.

After covering the Musician user group and different professions, I realised a certain pattern of the interviewees i.e all were male. So I picked the next participant, the fourth user is a graduate student in Philadelphia. She has been doing extensive research on Spotify's recommendation system which has led her to understand the app inside out. She should be "The Coder". She was selected for the interview because in the past two months she has thoroughly used all the app's features, testing each feature herself which gives her a deep insight on the app.

## Findings

Findings on both the methods were similar. The interviews were easier to analyze since follow-up questions were made unlike something in a questionnaire.

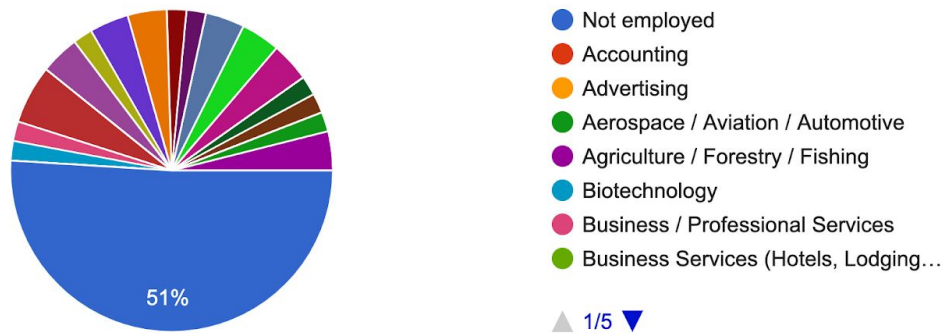
## Questionnaire

Out of the 51 responses received, we got a good response for 3 different age groups, with almost 59% between 18-24, 23% under 18 and 17% between 25-34. The participants were pretty equally divided by gender with 51% male. Even though we got participants of various

levels of education and employment status, there wasn't a great ethnic diversity with 86.3% Asian. 51% are unemployed and the rest who are employed are working various different fields.

### If you are currently employed, what industry do you work in?

51 responses



Most of the participants seem to be tech-savvy using their mobile phones very often for several reasons. Listening to music, clicking pictures and attending or making calls is the activity performed by most users, several times a day. Most of the users also showed a lot of inclination towards the need of internet at all times and a lot of love for technology. These users are very tech friendly and use their phones and internet a lot. They show a good understanding of technology and hence are a pretty rich set of participants to get great recommendations and suggestions.

Out of 51 participants, 27 have used Spotify, that makes up 69.2% of the total participants. This could mean some of have used it just for a while in the past, use it along with other music streaming apps or websites, rarely use it or use it often. But it's a good number to see the popularity of Spotify compared to other music streaming platforms. With platforms like 8tracks, Deezer, LiveXLive, iHeartRadio, SiriusXM, Tidal, Pandora very unpopular among the participants, Youtube and Spotify are currently most used platforms. But since most of the above unpopular apps do not have a version released in Asian countries where most participants are based, calling these apps "unpopular" in general wouldn't be right. The other music streaming platforms used are Saavn and Muzi which are India based. Spotify did increase their market by spreading to Asian countries but even with Apple and Youtube available in India, Spotify has proven to be more popular even though it joined the race far later than them. Out of the ones who actually answered these questions, the music streaming mentioned below had the most statistics. Again, these numbers have to consider that not all 51 participants answered this part.

	Never Used	Previously Used	Still Use
<b>Spotify</b>	12	6	21
<b>Amazon Music</b>	12	13	4
<b>Apple Music</b>	16	14	9
<b>Google Play Music</b>	14	12	13
<b>Soundcloud</b>	16	16	7
<b>Youtube</b>	13	6	20

As you can see, Spotify sees a good transition towards the use and the highest user base. Amazon Music and Apple Music users have considerably decreased.

Almost 75% of the participants said that music streaming has changed their way of listening to music because of the ease of it all. Easy to access, easy to search, easy availability, easy to listen to. While most of them love the quick access, others enjoy exploring new artists, genres and different bands. On the other hand, one participant did say that music streaming is making people listen to just singles which disregards the musician's effort, hardwork and money they put in for the entire album. Participant's frequency of listening to music is definitely overwhelming with almost all of them listening to music while studying, working out, chilling, and driving. With various different answers to the open ended questions, I was able to narrow down the reasons to why they listen to music to - as fun, for relaxation, to focus, to help calm down, as motivation and just to pass time. Most of them basically use music for some kind of emotional support whether to motivate them to achieve a certain goal or to distract them from their struggles.

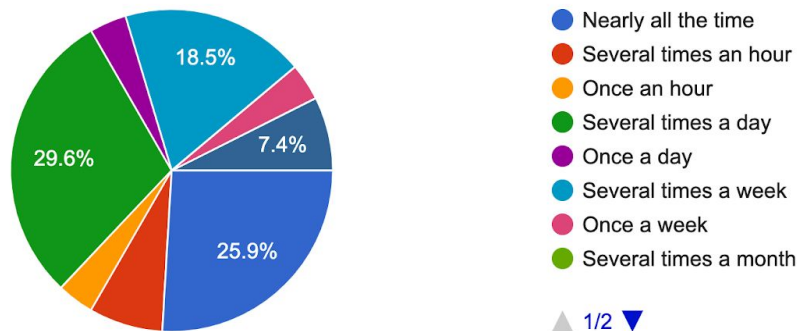
Moving on to Spotify Users specifically, among the participants almost 50% has been using Spotify for over a year and 67% using is several times a day. All 100% use Spotify primarily to listen to music but only 59% are able to do so with ease. Half of them go straight to their playlists where as the other half like to explore Spotify curated playlists and new music. The factors that make the users achieve their goal have been huge music library, playlists curated for different moods and a great interface. They love the interface because of easy and quick navigation abilities and require a very short path (a couple clicks) to get where they want to go. Rest who do not achieve their goals everytime said that the app crashes sometimes and unable to find their choice of music. Only 59% find the music they are looking for. Which is bad for a



huge company like Spotify whose primary feature is music.

## How often do you use Spotify?

27 responses



When asked for their favourite features, most of them love the Spotify curated playlists and the recommended playlists based on user's listening habits. They love that they don't feel the need to manually explore music because they get introduced to it by the auto radio feature on their personal playlist. They enjoy the ample recommendations Spotify provides them as well as the podcasts available. On the other hand, few users want Spotify to add music of different languages to the library. Spotify is available almost all over the world so this should have a problem solved years back. Along with that, some users would like customizable subscriptions, ability to play from the spine of the mobile phone and a better layout for discovery album. Asians want most music from Spotify in their regional languages. But Spotify's famous playlists again stands to be the most loved feature among the participants of this study as well.

## Interview

The Musician, 25, has been using Spotify ever since he got a smartphone. With doing extra chores around the house to being allowed to keep the phone and listening to hours of advertisements as a free user, his love for Spotify has remained consistent. He has seen this app through all the upgrades and the app has seen him through his dark times. His love for music, if not remained constant, has only increased using Spotify. He remembers the moments he discovered new artists and connected to them in an instant. It was his dream to have his music on Spotify which now that he has achieved, he sees the other side of Spotify.

"Getting paid for uploading music on Spotify was really fun until I realised it's not enough to even be able to create another album," he says. As a listener he loves Spotify but as a musician, not so much. The changes are happening, huge artists like Taylor Swift are taking a

stand against unfair treatment towards the musicians but the change just isn't happening fast enough.

The Musician, The Critic, 29, and The Coder, 24, are very big fans of the Recommended Playlists, On-Repeat playlist, Discover Weekly and The Daily Mix series whereas The Novice, 23 loves the personal playlist radio recommendation. These playlists haven't stopped them creating their own personal playlists. Though neither The Musician nor The Critic seemed to have an issue with it, The Coder did say that she does not find it easy to create a playlist. She says, "You just have to do a whole bunch of steps, the songs are just not easy to find, grr". She also pointed out that the recommendation of the song while searching for a song has very low accuracy, something also pointed out by The Critic. The Critic added to it by suggesting that users should be able to discover new music by browse search segmented by genre.

All four of them find it fairly easy to navigate through the app but The Novice does not really use the app. No, he does not even use the desktop version. He uses Spotify via his Google Mini Home. So clearly not the biggest fan of Spotify, so when asked why not, he said the free version of Spotify has a lot of advertisements. Though he understands advertisements are how they make money he pointed out that the other music streaming app - Musi, also runs on advertisements but these advertisements do not interfere with the music. The video of the advertisement keeps playing while his music continues. He also showed a snippet of it and he even closed the advertisement window. This is something that's keeping him from being a regular Spotify user. He also said he loves to watch music videos while he is studying which is again something not supported by Spotify.

Another complaint all of the participants had was the Spotify Library. The Critic said the U.S version he used had the best library and he was 100% happy with it but the Indian Version which he is forced to use now isn't that great. The international songs are limited and unfortunately so are the regional ones. The Coder also said the recommendation for Latin songs wasn't impressive which also could be the case for other languages' music but she hasn't discovered that yet. The Critic is also unhappy with the Podcast library and there is no recommendation for podcasts. Even though most users use Spotify for music, podcasts is a feature that marketed and not something that should be ignored by the developers.

Apart from the few similarities mentioned above, one similarity common with all of them is that they use Spotify for the song recommendations it has, whether it is through user based curated playlists, Spotify curated playlists or auto recommendation on personal playlist radio. And all of them except The Novice thinks the Spotify Premium subscription is worth it. Though everyone uses Spotify for different reasons, they all are surprisingly happy with the interface and basic working of the application. All of them also somehow have experience in technology as they have worked similar fields or are still studying in similar fields. They also religious music listeners.

## Discussion

The interview method was definitely a more rewarding research than the questionnaire research. The ability to ask follow up questions really helped in understanding the user and the user's interaction with the website. Looking at the person being interviewed also made it easy to understand what they exactly mean and made the flow of the questions healthier. The phone interviews were also great but since phone calls cannot be recorded it was not possible to write down the answers exactly as they said.

The interview method did take up more time compared to that of the questionnaire with finding time, considering the time zones with one of them, connection problems with calls and communication over calls. Whereas questionnaire didn't take up much time except to create it. Many participants also did not fill up the open ended questions because they were "lazy" or "busy". There were also many answers which were irrelevant to the questions which shows that they weren't easily understandable. The questions can be designed better for a better and easier understanding. There were also a few questions that popped up during the analysis like the free or premium user, phone or desktop user and current location of the users. Spotify has different versions for different countries. Even though most users are Asians, there was no way of knowing which version they are using since I know most of them are in the United States. That would have been an additional comparison to make between the different libraries. If there was no time constraint, it would have been ideal to find data points from the survey and redesign it to get a better content for analysis.

The interview method gave really great insights which could have been used in the questionnaire to make it more easy and succinct. In interviews the questions were manipulated to make them easy to understand. The interviews should have been done before the survey was designed because the interviews gave me a better idea of the content I needed. Also, an informal way of interviews yielded better results and a useful feedback was given by The Critic in the way interview questions could be framed for better answers.

The limitations for the participants was that most were Asians, there could have been a better diversity and all of the participants were tech savvy. The opinions of users who do not use their phones and internet much and/or aren't good at it would have different issues. Also, there were no participants above the age of 34. Questions asking about the key features and then asking the user to explain could have made the study better. But the pickle here is the participants do not like long surveys since "how much time is this going to take?" was a repetitive question.

## Conclusions

Spotify is a loved app and it introduced its users to a world full of music. It is used by people of different age groups, races and people of all professions. It has seen a considerable love from its user base for the playlists it has in store for every occasion, mood and even sub genres. Users love the easy access to music and ability to explore music, artists and genres by just a few clicks and quick navigation interface.

The basic functionality of Spotify seems perfectly fine and most users are certainly happy with it. Spotify can further make more international music accessible to its users and increase its accuracy for podcast recommendations. It should also improve its treatment towards artists. Playlist creation can be made more flexible and the advertisements can have an option to close.

Overall, the common findings have shown that these users who use Spotify the most have the most issues with it but these issues are not big enough for them to switch services. These are mostly improvements they would like to see Spotify adopt for the future.

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## Appendix

### 1) The Questionnaire

View online at

<https://docs.google.com/forms/d/1fFhQ5yqZ1xPYjV6QFiXOzwaH0fz31T4p2B4xTaMEDJU/edit#responses>

<https://forms.gle/P8YFh7ZctAteF51HA>

#### CONSENT

**INTRODUCTION:** Before agreeing to participate in this research study, it is important that you read all of the information on this page. It describes the purpose, procedures, benefits, and potential risks of the study, as well as the steps that will be taken to protect your data. This page also describes your right to withdraw from the study at any time.

**PURPOSE OF THE STUDY:** The intent of this study is for the purpose of determining information about who uses or doesn't use Spotify. This research is part of a class assignment for INFO 608 at Drexel University.

**DURATION OF THE STUDY:** This survey will take approximately 20 minutes or fewer to complete.

**PROCEDURES:** The study is a simple survey, involving a number of multiple choice questions and open ended questions.

**RISKS, DISCOMFORTS, AND PRECAUTIONS:** There are no major risks or discomforts associated with this study. Your participation is voluntary and you may refuse to participate or discontinue participation AT ANY TIME.

**CONFIDENTIALITY:** The results of any aggregate-level analyses may be presented to other parties, but all personal identifiers such as IDs will be excluded from such discussions and publications to protect your identity and maintain the confidentiality of all participants joining this research.

**COMPENSATION:** There is no compensation for this research. We thank you for your time and dedication.

**AVAILABILITY OF INFORMATION:** If you have any questions concerning this study, you may contact Jennifer Bochenek at [jbochenek@gmail.com](mailto:jbochenek@gmail.com)

Please read the statement below and indicate whether or not you accept the terms of this consent form.

You have read this consent form and have been able to ask questions and state any concerns. The researcher has responded to your questions and concerns, if any. You believe you understand the research study and the potential benefits and risks that are involved. By selecting yes below, and continuing with the survey, I am providing my consent.

#### Consent

- ☐ Yes, I consent to participate in this research study
- ☐ No, I do not consent to participate in this research study

#### Background Information

The below are questions that concern your personal background for the purpose of determining who uses or doesn't use Spotify. All responses are confidential, your responses will be aggregated with other responses and you will not be individually identified in any report, publication, or presentation.

What is your age?

- ☐ Under 18
- ☐ 18-24
- ☐ 25-34
- ☐ 35-44
- ☐ 45-54
- ☐ 55+
- ☐ Prefer not to answer

What is your gender?

- ☐ Female
- ☐ Male
- ☐ Prefer not to answer
- ☐ Other \_\_\_\_\_

What is your highest level of education?

- ☐ Less than high school
- ☐ Graduated high school/high school equivalency
- ☐ Trade/Technical school
- ☐ Some college, no degree
- ☐ Associate's degree
- ☐ Bachelor's degree
- ☐ Advanced degree (Master's, Ph.D., M.D)
- ☐ Prefer not to answer
- ☐ Other \_\_\_\_\_

What is your race/ethnicity? (Select all that apply)

- ☐ Asian
- ☐ Native Hawaiian or Other Pacific Islander
- ☐ Black/African-American
- ☐ White
- ☐ Hispanic/Latino
- ☐ American Indian/Alaska Native
- ☐ Prefer not to answer
- ☐ Other \_\_\_\_\_

What is your employment status? (Select all that apply)

- ☐ Currently employed part-time
- ☐ Currently employed full-time
- ☐ Self-Employed
- ☐ Retired
- ☐ Unemployed - not looking for a job
- ☐ Unemployed - looking for a job
- ☐ Student
- ☐ Prefer not to answer
- ☐ Other \_\_\_\_\_

If you are currently employed, what industry do you work in?

- ☐ Not employed
- ☐ Accounting
- ☐ Advertising
- ☐ Aerospace / Aviation / Automotive
- ☐ Agriculture / Forestry / Fishing

- ☐ Biotechnology
- ☐ Business / Professional Services
- ☐ Business Services (Hotels, Lodging Places)
- ☐ Computers (Hardware, Desktop Software)
- ☐ Communications
- ☐ Construction / Home Improvement
- ☐ Consulting
- ☐ Education
- ☐ Engineering / Architecture
- ☐ Entertainment / Recreation
- ☐ Finance / Banking / Insurance
- ☐ Food Service
- ☐ Government / Military
- ☐ Healthcare / Medical
- ☐ Internet
- ☐ Legal
- ☐ Manufacturing
- ☐ Marketing / Market Research / Public Relations
- ☐ Media / Printing / Publishing
- ☐ Mining
- ☐ Non-Profit
- ☐ Pharmaceutical / Chemical
- ☐ Research / Science
- ☐ Real Estate
- ☐ Retail
- ☐ Telecommunications
- ☐ Transportation / Distribution
- ☐ Utilities
- ☐ Wholesale
- ☐ Prefer not to respond
- ☐ Other

### Media and Technology Usage and Attitudes Scale

#### Media and Technology Usage

	Never	Less than once a week	Once a week	Several times a week	Once a day	Several times a day	Once an hour	Several times an hour
Send and receive	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



text message s on a mobile phone.								
Make and receive mobile phone calls.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Check for text message s on a mobile phone.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Check for voice calls on a mobile phone.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Read e-mail on a mobile phone.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Get directions or use GPS on a mobile phone.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Browse the web on a mobile phone.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Listen to music on a mobile phone.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Take pictures using a mobile phone.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Check the news on a mobile phone.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Record video on a mobile phone.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Use apps (for any purpose) on a mobile phone.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Search for information with a mobile phone.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Use your mobile phone during class or work time.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### Media and Technology Attitudes

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
I feel it is	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

important to be able to find any information whenever I want online.					
I feel it is important to be able to access the Internet any time I want.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I think it is important to keep up with the latest trends in technology.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I get anxious when I don't have my cell phone.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I get anxious when I don't have the Internet available to me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am dependent on my technology.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Technology will provide solutions to many of our problems.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
With technology anything is possible.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

I feel that I get more accomplished because of technology.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
New technology makes people waste too much time.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
New technology makes life more complicated.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
New technology makes people more isolated.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I prefer to work on several projects in a day, rather than completing one project and then switching to another.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
When doing a number of assignments, I like to switch back and forth between them rather than do one at a time.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

I like to finish one task completely before focusing on anything else.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
When I have a task to complete, I like to break it up by switching to other tasks intermittently.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## Spotify

Have you ever used the music streaming service Spotify?

- ☐ Yes (at end of section, branch to Spotify User)
- ☐ No (at end of section, branch to Non-Spotify User)

What other music streaming services have you used or still use?

	Never Used	Previously Used	Still Use
8tracks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Amazon Music	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Apple Music	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Deezer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Google Play Music	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iHeartRadio	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
LiveXLive Powered by Slacker	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pandora	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SiriusXM	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Spotify	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SoundCloud	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tidal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
YouTube Music	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

If there is another music streaming service that you have used previously or still use that was not in the list above, please provide it here:

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Has music streaming changed the way you consume music?

- ☐ Yes
- ☐ No
- ☐ I don't know

If yes or no for the above, please explain how music streaming has changed the way you consume music.

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When and why do you listen to music?

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Spotify User

How long have you been using Spotify?

- ☐ Recently started using Spotify
- ☐ For over a month
- ☐ For over 6 months
- ☐ For over a year
- ☐ For over 2 years
- ☐ For over 5 years
- ☐ For over 10 years

How often do you use Spotify?

- ☐ Nearly all the time
- ☐ Several times an hour
- ☐ Once an hour
- ☐ Several times a day
- ☐ Once a day
- ☐ Several times a week

- ☐ Once a week
- ☐ Several times a month
- ☐ Once a month
- ☐ Less than once a month

When you go to the Spotify web player or open the Spotify App, what is your primary goal?

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How often are you able to accomplish your goal when you use Spotify?

- ☐ Always
- ☐ Sometimes
- ☐ Rarely
- ☐ Never

Please expand on the above, what is helping you achieve your goals or preventing you from achieving your goals?

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What paths do you typically take to get to the content you want when you navigate the Spotify Web Player or Spotify App?

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How often are you able to find the music you want to listen to?

- ☐ Always
- ☐ Most of the time
- ☐ Some of the time
- ☐ Never

What are your favorite features of Spotify?

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What areas do you think Spotify needs to improve?

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Are you a musician with music currently on Spotify?

- ☐ Yes
- ☐ No
- ☐ Prefer not to say

(End of Survey)

### Spotify Non-User

Please pick the music streaming service you have been using the longest to answer all the questions below.

What music streaming service have you been using the longest?

- ☐ 8tracks
- ☐ Amazon Music
- ☐ Apple Music
- ☐ Deezer
- ☐ Google Play Music
- ☐ iHeartRadio
- ☐ LiveXLive Powered by Slacker
- ☐ Pandora
- ☐ SiriusXM
- ☐ Spotify
- ☐ SoundCloud
- ☐ Tidal
- ☐ YouTube Music
- ☐ Other \_\_\_\_\_

How long have you been using your music streaming service?

- ☐ Recently started using my streaming service.
- ☐ For over a month
- ☐ For over 6 months
- ☐ For over a year
- ☐ For over 2 years
- ☐ For over 5 years
- ☐ For over 10 years

How often do you use your music streaming service?

- ☐ Nearly all the time
- ☐ Several times an hour
- ☐ Once an hour
- ☐ Several times a day
- ☐ Once a day
- ☐ Several times a week
- ☐ Once a week
- ☐ Several times a month
- ☐ Once a month
- ☐ Less than once a month



When you go to your music streaming service's web player or open their app, what is your primary goal?

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How often are you able to accomplish your goal when you use your music streaming service?

- ☐ Always
- ☐ Sometimes
- ☐ Rarely
- ☐ Never

Please expand on the above, what is helping you achieve your goals or preventing you from achieving your goals?

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What paths do you typically take to get to the content you want when you navigate your streaming music web player or App?

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How often are you able to find the music you want to listen to?

- ☐ Always
- ☐ Most of the time
- ☐ Some of the time
- ☐ Never

What are your favorite features of your streaming music service?

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What areas do you think your streaming music service needs to improve?

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Are you a musician with music currently on your streaming music service?

- ☐ Yes
- ☐ No
- ☐ Prefer not to say
- ☐ Other \_\_\_\_\_

For what reasons are you not currently using Spotify as your music streaming service?

## 2) Questionnaire Results

.csv file added along with this report

## 3) The Interviews

### The Musician

- 1) How Old are you?  
25
- 2) What is your employment status?  
Employed
- 3) Which industry do you work in?  
I work as a business analyst in an advertising company.
- 4) How often do you use your phone?  
Ummm, almost all the time.
- 5) What do you use your phone most for?  
I have music playing on my phone at all times. I can not code without some music on and since that's my profession, I have my music on at all times.
- 6) Do you use Spotify?  
Oh YES! I have it connected to all my social media apps, health apps, uber, everything!
- 7) For how long have you been using it?  
Ever since I can remember! A little over 8, 9 years I guess. I just remember I was craving for a smart phone so I could download Spotify since my cousin had it and he would show it off every time we met.
- 8) It wasn't available in India back then, was it?  
Oh no, it wasn't. I completed my high school in France and so I downloaded it when I was there. That time there was no limit of 15 days in a different country like today.
- 9) Do you use Spotify on the desktop or on your mobile phone?  
Both, when i'm at home working on something I use it on my Mac and when I'm out I use it on my phone.
- 10) Do you have any complaints between the two versions?  
Honestly speaking, I don't play around much on the Mac version. I just go to my playlist and shuffle play.

- 11) When you open the app, what's the first thing you usually do?  
Check if my music has generated any more followers haha
- 12) You have music on Spotify?  
Yes, I have two albums on there.
- 13) Do you find it easy to navigate to that?  
I've been doing it for so long now, I don't really have any issues with it. But I remember in the beginning it used to take me awhile to figure that out.
- 14) Do you find it easy to search for music?  
Yes, absolutely.
- 15) Do you find it easy to search to different recommended playlists?  
Yes and no. The playlists that I listen to often like the on-repeat and daily mix get shown right up there when I open the app but the other playlists get hidden. Have to scroll a lot for that. I wish I could just be able to click on all the playlists for me and then be taken a new window with all the playlists.
- 16) Do you like the spotify music library? Do you think it's enough?  
They have a very vast music library and I know many people around me are very happy about but i'm not introduced to small time musician's music like I am shown the million songs Ed Sheeran has on the charts. Maybe I'm biased because I am a small time musician but there should be an option at least or a playlist dedicated to local bands' music so people at least get a chance to listen to it.
- 17) What is your favourite feature of Spotify?  
I like that I have my recently played right on top there. Because I'm constantly in search for new music, if I forget to add something I liked to my playlist I know I will find it right there. Also it makes re listening to the songs very common.
- 18) What do you think can be improved?  
Over all, the first thing that Spotify needs to improve is to pay the small time musicians more! It just is not fair what they pay us!
- 19) How bad it the pay?  
It's bad enough that we might not be making the third album. I have a decent full time job but my band mate's play music for a living and studio time costs a lot more than we can afford. First time I got paid for music, I was so happy. It has always been my dream to have my music up there, people listening to my music on spotify but thanks Spotify for killing that joy.
- 20) If you had to switch to any other music streaming app, which would it be and why?  
I haven't used any other app but maybe Apple Music. But even Apple stands no chance against Spotify's recommendation algorithm. Spotify is killing it and they know it very damn well.

## The Critic

How Old are you?

29

- 1) What is your employment status?  
Employed full time.
- 2) Which industry do you work in?  
Finance
- 3) How often do you use your phone?  
Umm, pretty often. I use it for GPS, Music, Social Media, calls and of course, pictures. My phone has the best camera, I think I mostly use my phone for taking pictures.
- 4) Do you use Spotify?  
Yes, all the time.
- 5) For how long have you been using it?  
I think more than 4 years.
- 6) Has music streaming changed the way you consume music?  
Yes, one hundred percent. I discover so many new artists. You know I have always looked for new music, different artists, different genres. I would spend hours and hours at Landmark (a CD and DVD store in India) and then downloading so much music illegally but music streaming has made it quick and easy. Plus so much music, it's a great time to be alive.
- 7) Do you use Spotify on the desktop or on your mobile phone?  
Phone
- 8) When you open the app, what's the first thing you usually do?  
70% of the times I play my personal playlists and 30% I look for recommended playlists.
- 9) Do you find it easy to navigate to that?  
Personal playlists, yes. It's right there you know. But it's not easy to search for new music by genres. Like, if I enter rock in the search bar I'm shown a list of rock songs but I can't find the new released rock songs.
- 10) What do you think should be done for that?  
Well, first I thought that can show new released music first, so basically in the order of release date but that but that's just stupid. So I think they should just be segmented like music is on the home page.
- 11) Do you find it easy to search for music other than by genres?  
Yes, rest I find easy. I also wish I could just find a song by the lyrics like we can do on Google but I guess that's a little ambitious.
- 12) Do you find it easy to search to different recommended playlists?  
Yes. The layout could be better but I'm happy it.
- 13) How can layout be better?  
Well, the icon image of all the playlists just seems so similar. They could be a little different to differentiate between them.
- 14) Do you like the spotify music library? Do you think it's enough?  
First I used to use the US based version and that's brilliant. It has everything I could ever want but the Indian version has a poor library. International songs are missings, Indian songs are missing, it's a mess.
- 15) What is your favourite feature of Spotify?

The on-repeat playlist, definitely.

16) What do you think can be improved?

All the things i said before and podcasts! The podcasts library can be increased and there is absolutely no recommendation for podcasts!

17) If you had to switch to any other music streaming app, which would it be and why?

I use Amazon music, Saavn and musi for hindi songs but the switch would be tough you know. Spotify knows me too well for me to make a complete switch.

## The Novice

1) How Old are you?

23

2) What is your employment status?

Part-Time

3) Which industry do you work in?

Engineering

4) How often do you use your phone?

Not very often, just use it for texts, calls and music.

5) Do you use Spotify?

Yes, I do.

6) For how long have you been using it?

Not very long, less than a year.

7) How often do you use it?

Whenever I am at home.

8) You don't use it when you want to listen to music outside?

No, I use Musi when I'm out.

9) Why is that?

I use Spotify only on Google Mini Home because Musi does not integrate with it. So whenever im home and want to play music it is Spotify.

10) Do you use Spotify on the desktop or on your mobile phone?

I have the app on my phone, didn't even know the PC version exists. But I don't open the much either, I just play the music through Google Home.

11) When you open the app, what's the first thing you usually do?

I search for a song I want to listen and just the recommendations play after that. The radio recommendations.

12) Do you find it easy to navigate to that?

Yes.

13) What do you think helps you do that?

The search bar is easy to locate.

- 14) Do you find it easy to search to different recommended playlists?  
Yes, I really enjoy the focussed playlist so I usually just listen to that one.
- 15) Do you like the spotify music library? Do you think it's enough?  
There are a lot of core Indian language that won't be found there but the English library is fascinating.
- 16) What is your favourite feature of Spotify?  
That it works with Google Mini Home!
- 17) What do you think can be improved?  
There are a lot of ads on Spotify, that can be improved.
- 18) So you don't want the ads?  
I don't have a problem with ads but Musi has ads too but my music still playing in the background. I don't get interrupted by the ads.
- 19) Is there anything else you would like to improve?  
Ummm, Spotify could add videos. I like to just have videos play on my table when i'm studying so if Spotify had that, it would be cool.
- 20) Does Musi support videos?  
Yes! Musi has a lot of music videos. But if you get an ad while you're playing a video you can just close it. Look..  
(Shows me the Musi app advertisements)

## The Coder

- 1) How Old are you?  
24
- 2) What is your employment status?  
Part-time
- 3) Which industry do you work in?  
Engineering
- 4) How often do you use your phone?  
I don't use my phone as much but the music is always playing in the background.
- 5) Do you use Spotify?  
Yes, yes I do.
- 6) For how long have you been using it?  
3 to 4 years
- 7) How often do you use it?  
Alllllll the time
- 8) Do you use Spotify on the desktop or on your mobile phone?  
On my phone mostly but sometimes I use the desktop version if i'm too lazy to go to my phone.
- 9) When you open the app, what's the first thing you usually do?

Play music?

10) Yes but do you search for the music or do you play from the playlists?

Oh, right, playlists.

11) Personal or recommended?

Personal first, I switch to recommended later in the day. I like to listen to my favourite music first to kick off the day.

12) Do you find it easy to navigate to that?

Yes, it's easy.

13) Do you think music streaming has changed the way you consume music?

Yes, definitely. It's so much easier now to listen to music. There is also so much variety and so many options.

14) Do you find it easy to search for music on Spotify?

Yes.

15) Do you find it easy to search to different recommended playlists?

To find it, yes. Not so much to create playlists.

16) Create personal playlists is not easy you say?

Yeah, there are a bunch of steps you gotta take to create it. You can't just find the music easy when you're creating it. You have to search for each song separately. It's so time consuming.

17) Yeah agreed, that's why I instantly add a song I like to a playlist.

Yes, I do that well but sometimes I'm in a mood to make a sad playlist and then all that happens.

18) Do you like the spotify music library? Do you think it's enough?

It's alright. It's better than other apps.

19) What more music would you like to see on Spotify?

A lot of more regional music, you know. Marathi songs, the classic old ones especially.

20) What is your favourite feature of Spotify?

The new releases playlist is great to find new music.

21) What do you think can be improved?

The other day for my research work I was trying to find Latin Salsa songs but I was getting more of Latin Love Songs which shows the recommendation isn't great for searching for songs. I should be able to search for songs without knowing the name of the song.

22) If you had to switch to any other music streaming app, which would it be and why?

I think Spotify is the best we have so I'll stick to Spotify.