



## **Growth Problem**

Increase the number of active users of  
YouTube music

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## Problem Statement

**How would you increase the number of active users of YouTube Music in India?**

Device scope: Considering the mobile app, desktop app and across other devices

## Approach

1. Identifying different users of YouTube Music and defining active users
2. Identifying high level sources of bringing in more active users
3. Going through the user journey and identifying issues faced by existing inactive/passive users and active users of other music apps, preventing them from becoming active users of YouTube Music
4. Prioritising and choosing from the pain points observed
5. Ideating solutions to tackle the chosen pain points
6. Choosing from the solutions listed
7. Defining metrics to track the success of proposed solutions

## Identifying and Segmenting Users

Major user categories:

1. Consumers
2. Creators (artists)
3. Advertisers

Of these, we will focus on consumers since they are a much larger user base and more likely to improve the active users metric.

### Further segmenting users and defining active users

Reasons for segmenting users based on time spent per week are in the appendix section A.

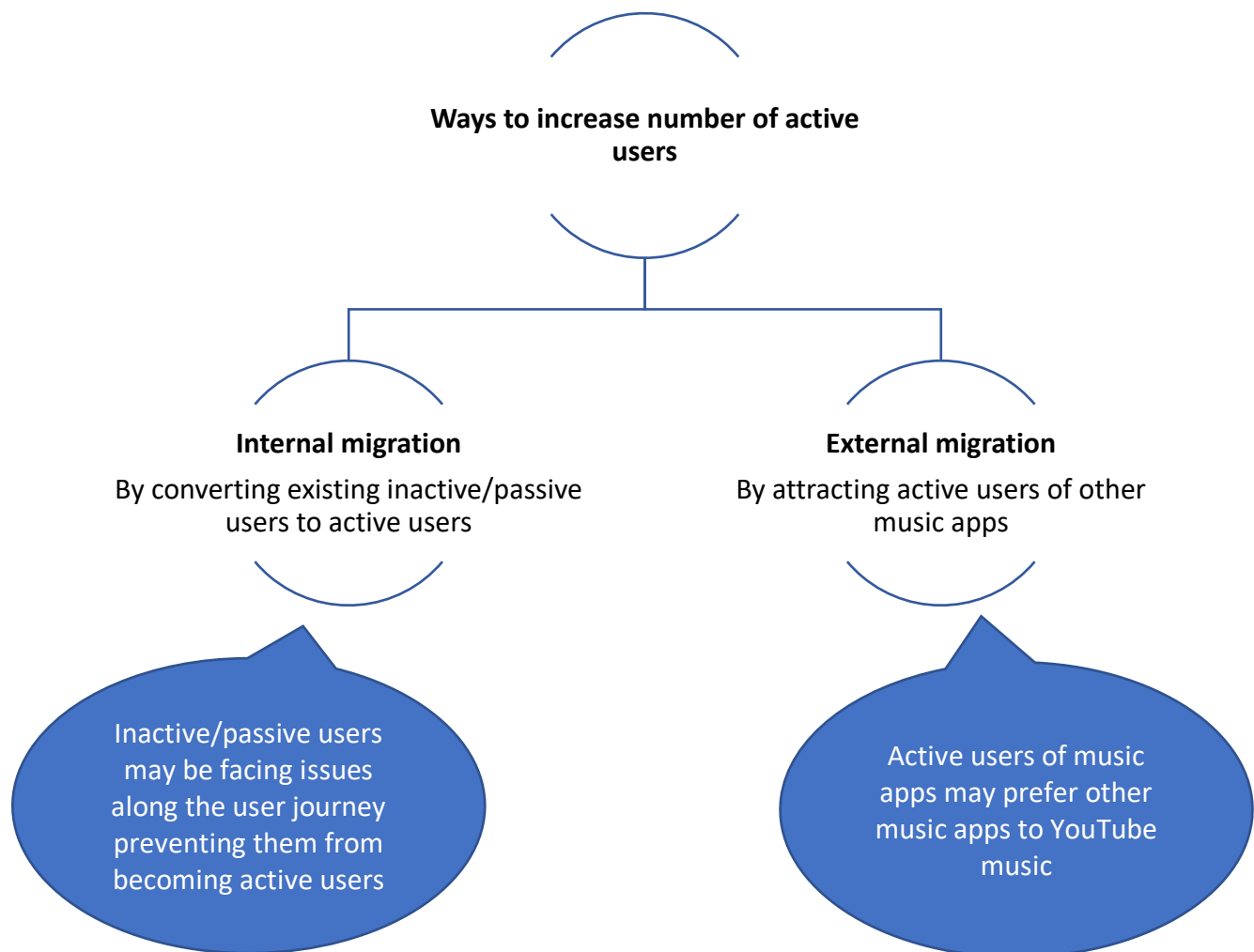
Defining four major categories of YouTube music consumers:

Segment	Time spent/week	Explanation
Power users	More than 150 minutes (2.5 hours)	User listens to more than 4-5 songs or more per day on average. This roughly translates to 150 minutes or more a week assuming an average song is 5 minutes long.
Active users	30 - 150 minutes	This is a wide range between passive and active users

Passive users	Less than 30 minutes	User listens to 5-6 songs a week at max. This roughly translates to 30 minutes or more a week assuming an average song is 5 minutes long.
Inactive users	None	These users would have downloaded the app (and may have browsed it a few times after downloading) but never really used it since then.

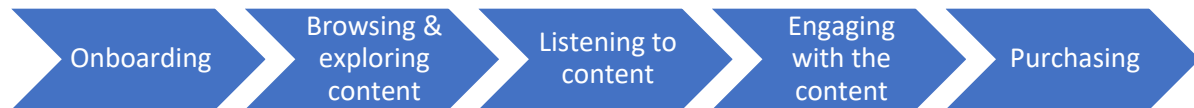
**Refined problem statement: Increase the number of YouTube music users who use the app for at least 30 minutes a week**

High level sources of bringing in more active users



## Potential issues preventing users from becoming active users of YouTube music

The user journey has 5 major steps:



Potential issues are derived from issues faced in user journey along with comparison with other leading competitors: Spotify and Apple Music

S. No.	Potential pain point (hypotheses)	Way to validate (metrics to check)
<b>O</b>	<b>Onboarding</b>	
1	<b>Confusing sign up process:</b> No sign-up process visible on home screen, one has to create a google account first and then sign in via that account on YT music, users can get confused and end up bouncing off	<ul style="list-style-type: none"> <li>Bounce off rate of not signed in users on landing page (after downloading app)</li> <li>Share of listeners who haven't signed in</li> </ul>
3	<b>Network effects:</b> Spotify has the largest share among the premium music apps in India and the social benefits of joining Spotify are higher than that of YouTube music. More friends and their playlists to follow would attract more users to Spotify than other apps.	<ul style="list-style-type: none"> <li>Number of active users of Spotify vs YT Music vs Apple Music</li> </ul>
4	<b>High switching cost:</b> After using a music app for a certain time, the app experience via recommendations and dynamic home screen are highly personalised for a user, preventing them from using another app which would not understand their preferences as well	<ul style="list-style-type: none"> <li>Retention rate of active users basis their age on the app (time since activation)</li> </ul>
<b>B</b>	<b>Browsing &amp; Exploring content</b>	
1	<b>Poor offline navigation experience:</b> Searching is not possible in downloaded music, one has to scroll a lot to find the music of their choice. Users with preference for a good offline music experience are discouraged to join.	<ul style="list-style-type: none"> <li>Average user time spent on scrolling offline library</li> <li>Reviews of users</li> </ul>

2	<b>Limited audio offerings:</b> YouTube music only offers music as audio content, offering limited avenues for engagement from users not very interested in music. Spotify also offers podcasts on its platform.	<ul style="list-style-type: none"> <li>Number of searches for podcasts in search</li> </ul>
3	<b>Online and offline library experiences are completely split:</b> One can't start radio, navigate to an artist or album from the song when listening to downloaded music despite being online.	<ul style="list-style-type: none"> <li>Number of times offline library menu is opened without any action (probably due to lack of functions available)</li> </ul>
4	<b>Irrelevant content on home screen based on old YT preferences:</b> Recommendations and likes are merged with YouTube, which has the history of most users since childhood. YouTube music ends up recommending songs that you liked when you were much younger based on YouTube history even though your preferences would have changed. This cycle takes time to break, potentially discouraging users from using the app.	<ul style="list-style-type: none"> <li>Average age of liked content on the app (this includes YT likes automatically)</li> <li>Share of music chosen from home screen recommendations vs via search/ top charts</li> </ul>
L	<b>Listening</b>	
1	<b>Very high restrictions for free users:</b> Free users have a severe limitation of not being able to listen to music in the background/on locking the phone, preventing free users from becoming active users	<ul style="list-style-type: none"> <li>Comparison of share of free users of Spotify vs YT Music</li> <li>Retention rate of users who use free version</li> </ul>
E	<b>Engaging with the content - downloading, creating playlists, sharing etc.</b>	
1	<b>Difficult off - app music (link) accepting/ sharing experience:</b> Links of music shared between users (like on WhatsApp) are likely to be on Spotify (since they have the largest share), encouraging the recipient to start using Spotify to reduce the effort of remembering and searching for the name of the song shared on another music app	<ul style="list-style-type: none"> <li>Average number of off-app links opened per user on YT music vs Spotify (this metric can be hard to obtain but not impossible)</li> </ul>
2	<b>Limited in-app social experience:</b> Highly limited avenues to interact with other users on the app. Only playlists of others can be viewed and followed. Spotify on the other hand allows users to have collective listening experiences and share snippets of lyrics with friends.	<ul style="list-style-type: none"> <li>Comparison of social features the three apps</li> </ul>

3	<b>Lack of social media integration:</b> YouTube music is not integrated with other social media apps. Given music is a way of expressing oneself (and showing people one's cool), such integrations would increase engagement. Spotify for instance is integrated with Tinder to show one's Spotify profile on the users' Tinder profiles.	<ul style="list-style-type: none"> <li>Social feature comparison of the three apps</li> </ul>
P	<b>Purchasing</b>	
1	<b>Slightly more expensive service:</b> YouTube music ends up being slightly more expensive than Spotify since it does not have any duo/family accounts to make the subscription per person become cheaper	<ul style="list-style-type: none"> <li>Pricing comparison of the three apps</li> </ul>

## Chosen pain points from the user journey

The pain points are rated on reach (breadth - number of users impacted) and impact (depth - how much each user is impacted) and given a composite score as in Appendix Section B.

The top scored 5 pain points, affecting the most numbers of users, and most deeply, are:

S. No.	Chosen pain points
O2	<b>Irrelevant content on home screen based on old YT preferences:</b> Recommendations and likes are merged with YouTube, which has the history of most users since childhood. YouTube music ends up recommending songs that you liked when you were much younger based on youtube history even though your preferences would have changed. This cycle takes time to break, potentially discouraging users from using the app.
O4	<b>High switching cost:</b> After using a music app for a certain time, the app experience via recommendations and dynamic home screen are highly personalised for a user, preventing them from using another app which would not understand their preferences as well
B2	<b>Limited audio offerings:</b> YouTube music only offers music as audio content, offering limited avenues for engagement from users not very interested in music. Spotify also offers podcasts on its platform.
L1	<b>Very high restrictions for free users:</b> Free users have a severe limitation of not being able to listen to music in the background/on locking the phone, preventing free users from becoming active users
E2	<b>Limited in-app social experience:</b> Highly limited avenues to interact with other users on the app. Only playlists of others can be viewed and followed. Spotify on

	the other hand allows users to share snippets of lyrics with friends on Spotify and have collective listening experiences.
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## Potential ideas to solve the pain points

Ideated solutions based on the chosen pain points:

S. No.	Potential solution	Pain points covered
1	Give user option to decide how many years of their YouTube history should be imported to YouTube music (Past 5 years/Past 10 years/since inception)	O2
2	Use relevant recent google search along with YouTube data to personalise home screen	O4
3	Add feature to browse and listen to podcasts, interviews and live AMAs with artists and relevant people from the music industry	B2
4	Introduce audiobooks and non-music related podcasts to the content as a separate tab	B2
5	Allow background play for free users, while using ads for monetisation	L1
6	Feature to import one's friends from Facebook or phone contact list (FB accounts and phone numbers are linked to google accounts) and get 'Most popular songs among friends', 'Trending songs among friends'	E2
7	Feature to recommend songs to friends/group of friends in the app - option to create a group of friends, share music with them and receive recommendations from them in the app	E2
8	Introducing live concerts which can be attended with friends virtually using VR	E2
9	Introducing virtual clubs/discotheques based on radio stations which can be attended with friends by partnering with motion sensing game stations (like XBOX, PS) and using VR	E2



## Chosen solutions

The solutions are rated on reach (breadth - number of users impacted), impact (depth - how much each user is impacted) , effort (manhours and complexity of task), novelty and given a composite scored as in Appendix Section C.

The top scored 5 pain points, in order of the scoring are:

Rank	Potential solution	Reason for selection
1	<b>Allow background play for free users</b> , while using ads for monetisation	Easy to implement, will convert many passive/ inactive free users to active users
2	<b>Feature to import one's friends from Facebook or phone contact list</b> (FB accounts and phone numbers are linked to google accounts) and get <b>'Most popular songs among friends'</b> , <b>'Trending songs among friends'</b>	Competition is not doing this and the use case currently seems to be fulfilled by WhatsApp groups
3	Give user <b>option to decide how many years of their YouTube history should be imported</b> to YouTube music (None/Past 5 years/Past 10 years/since inception)	Easy to implement, high expected impact
4	<b>Introducing virtual clubs/discotheques based on radio stations which can be attended with friends</b> by partnering with motion sensing game stations (like XBOX, PS) and using VR	No other app is doing this currently and implementation will not be very difficult if we partner with correct players like Sony since they already have motion sensor and VR based play stations
5	Use <b>relevant recent google search and YouTube data to personalise</b> home screen	Easy to implement, high expected impact

## Tracking success

Metrics to track to evaluate success:

### North Star Metric

- Number of weekly active users

### Other Tracking Metrics

- **Adoption**
  - Number of users using the new solutions proposed per week
  - Share of inactive/passive users who have used the proposed features
  - Number of friends added per user
  - Number of virtual discos attended per week
- **Engagement**
  - Average time spent per user
  - Average time spent per free user on the app
  - Average time spent per user on the new proposed features
  - Average number of members per group
  - Average activity (shares) per group
- **Retention**
  - M-o-M active users retention rate
  - Average age of active users on the app - age defined by time since activation on the app
- **Monetisation**
  - Revenue per month, by share - subs vs ads
  - Share of paid users in total users

### Counter Metrics

- Share of users who tried the new features and did not use them again for 3 months
- Share of groups with no activity
- Share of low ratings

## Appendix

### Section A: User segmentation parameters explained

YouTube users can be segmented on level of activity based on four parameters:

1. Frequency of sessions per week
2. Time spent on the app per week
3. Kind of subscription: paid or free
4. Engagement with content per week: likes, shares, playlist creations, subscriptions (of artists and radios)

Of these, time spent per week is the best metric since

- Session frequency can be misleading: A person spending 3 hours a week across 3 sessions (1 hour per session) should be considered more active than a person spending 1 hour a week across 5 sessions (12 min per session)
- Paid subscribers may not be active users of the app
- Engagement with content may be a misleading metric: A person may be interacting a lot with content they consume but may be consuming lesser content
- Further, engagement with content is captured in the time spent metric since the extra time spent in engaging with content (like creating playlists) will directly add to the time spent on the app

Why a time period of a week?

- Time spent per week is chosen (and not per day) since a week captures weekdays and weekends both, given that user behaviour may be different on both kinds of days.
- Not time spent/month: Different months have different number of days and month on month changes in the time spent/month metric will be influenced by number of days in the month
- Not time spent/year: A year is too long a period to track and changes in time spent per year metric will not be quick or easily discernible

## Section B: Scoring of potential pain points

(Explanations given where reasoning may be unclear)

S. No.	Potential pain point (hypotheses)	Reach (1- lowest, 5- highest)	Impact (1- lowest, 5- highest)	Reach x Impact
0	<b>Onboarding</b>			
1	<b>Confusing sign up process:</b> No sign-up process visible on home screen, one has to create a google account first and then sign in via that account on YT music, users can get confused and end up bouncing off	2 - most users would already have google accounts	3 - It is easy to make a google account	6
2	<b>Irrelevant content on home screen based on old YT preferences:</b> Recommendations and likes are merged with YouTube, which has the history of most users since childhood. YouTube music ends up recommending songs that you liked when you were much younger based on youtube history even though your preferences would have changed. This cycle takes a lot of time to break, potentially discouraging users from using the app.	5 - Major share of YouTube music users are likely to have had YouTube accounts since over a decade	4	20
3	<b>Network effects:</b> Spotify has the largest share among the premium music apps in India and the social benefits of joining Spotify are higher than that of YouTube music. More friends and their playlists to follow would attract more users to Spotify than other apps.	4 - Only affects users looking for a social music experience	4	5
4	<b>High switching cost:</b> After using a music app for a certain time, the app experience via	4 - Affects active users of other apps	5	20

	recommendations and dynamic home screen are highly personalised for a user, preventing them from using another app which would not understand their preferences as well			
<b>B</b>	<b>Browsing &amp; Exploring content</b>			
1	<b>Poor offline navigation experience:</b> Searching is not possible in downloaded music, one has to scroll a lot to find the music of their choice. Users with preference for a good offline music experience are discouraged to join.	3 - Not many people expected to be looking forward to an offline music management system	5 - It is easy to make a google account	15
2	<b>Limited audio offerings:</b> YouTube music only offers music as audio content, offering limited avenues for engagement from users not very interested in music. Spotify also offers podcasts on its platform.	4 - Concerns people interested in alternate audio content like podcasts	5 - No such feature exists	20
3	<b>Online and offline library experiences are completely split:</b> One can't start radio, navigate to an artist or album from the song when listening to downloaded music despite being online.	3	4	12
<b>L</b>	<b>Listening</b>			
1	<b>Very high restrictions for free users:</b> Free users have a severe limitation of not being able to listen to music in the background/on locking the phone, preventing free users from becoming active users	5	5	25
<b>E</b>	<b>Engaging with the content - downloading, creating playlists, sharing etc.</b>			

1	<b>Difficult off - app music (link) accepting/ sharing experience:</b> Links of music shared between users (like on WhatsApp) are likely to be on Spotify (since they have the largest share), encouraging the recipient to start using Spotify to reduce the effort of remembering and searching for the name of the song shared on another music app	4	4	16
2	<b>Limited in-app social experience:</b> Highly limited avenues to interact with other users on the app. Only playlists of others can be viewed and followed. Spotify on the other hand allows users to share snippets of lyrics with friends on Spotify and have collective listening experiences.	4 - Users who would be interested in recommendations of their friends	5 - Current social experience features on YT music are very few	20
3	<b>Lack of social media integration:</b> YouTube music is not integrated with other social media apps. Given music is a way of expressing oneself (and showing people one's cool), such integrations would increase engagement. Spotify for instance is integrated with Tinder to show one's spotify profile on the users' Tinder profiles.	4	3	12
<b>P</b>	<b>Purchasing</b>			
1	<b>Slightly more expensive service:</b> YouTube music ends up being slightly more expensive than Spotify since it does not have any duo/family accounts to make the subscription per person become cheaper	2 - Premium music app users are unlikely to be price sensitive	3 - Difference between prices is little	6

## Section C: Scoring of potential solutions

(Explanations given where reasoning may be unclear)

S. No.	Potential solution	Reach	Impact	Effort	Novelty	Score
1	Allow background play for free users, while using ads for monetisation	5	5	1	1	26
2	Feature to import one's friends from Facebook or phone contact list (FB accounts and phone numbers are linked to google accounts) and get 'Most popular songs among friends', 'Trending songs among friends'	5	5	2	4	15
3	Give user option to decide how many years of their YouTube history should be imported to YouTube music (Past 5 years/Past 10 years/since inception)	5	3	2	2	9
4	Introducing virtual clubs/discotheques based on radio stations which can be attended with friends by partnering with motion sensing game stations (like XBOX, PS) and using VR	4	5	3	5	8
5	Use relevant recent google search along with YouTube data to personalise home screen	5	3	2	1	8
6	Feature to recommend songs to friends/group of friends in the app - option to create a group of friends, share music with them and receive recommendations from them in the app	4	4	3	3	6
7	Add feature to browse and listen to podcasts, interviews and live AMAs with artists and relevant people from the music industry	3	5	3	3	6
8	Introduce audiobooks and non-music related podcasts to the content as a separate tab	4	5	4	3	6
9	Introducing live concerts which can be attended with friends virtually using VR	3	4	4	5	4