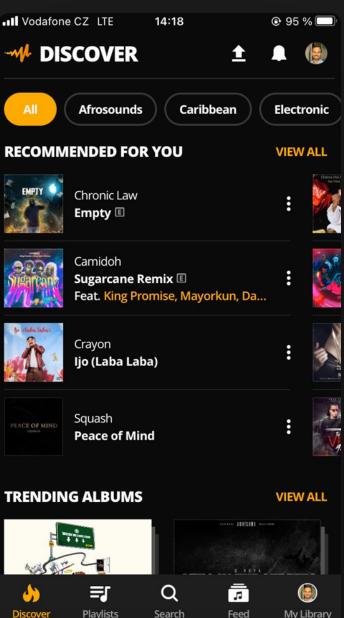


## Audiomack Success Story With Recombee

# **One-On-One Content Recommendations for** the Global Music Sharing and Discovery Platform



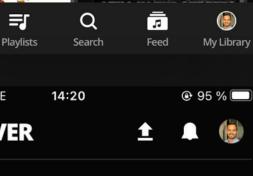
Vodafone CZ LTE

### **ACCOUNTS FOR YOU**



Schoolboy Q 125K Followers

# 

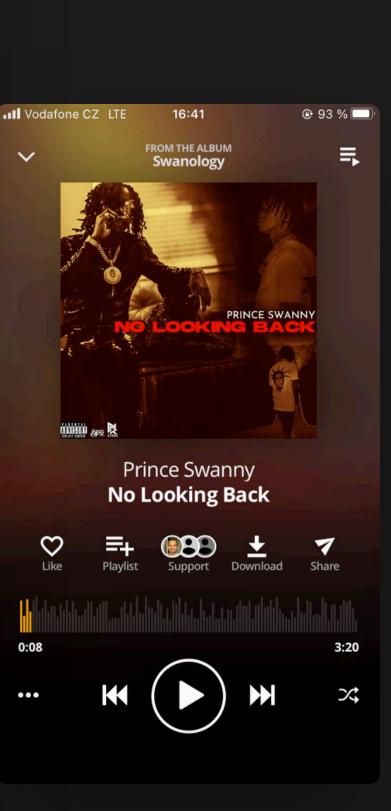


Sidhu Moose Wala 247K Followers

Samuel Chul

VIEW ALL

306K Follo



### **Recombee & Audiomack Partnership**

## As an artist-first global music-sharing platform, Audiomack is here to move music forward.

The on-demand global music discovery platform operating in more than 200 countries enables creators to share unlimited songs, albums, mixtapes, playlists, and podcasts and allows listeners to stream that content for free.

Thanks to Recombee's AI content recommendations, Audiomack provides its **20 million monthly active users** and 5 million daily active users with a **personalized streaming experience** tailored one-on-one in real-time while significantly increasing the number of monthly follows and plays.

# 206% Increase

In Monthly Plays from recommendations

# 67% Increase

In Weekly Account Follows from recommendations



### About Audiomack

Audiomack allows creators to share their content with millions of **highly engaged listeners.** Millions of fans use the platform daily to discover buzzing new songs and the hottest trending music anywhere.

Being one the **most innovative companies in music,** Audiomack also enables fans to communicate with their favorite artists and support them directly through the platform.

Simply put, Audiomack is an **open creative space for artists** who don't like limitations.



### Situation

## Requirements

Millions of listeners and artists from different parts of the world	State-of-the-art recomm	
with different taste	through personalized n	
Millions of permanently accessible songs and other content in the	High model sensitivity of	
constantly growing catalog		
	Unique recommendation	
In-house system for recommending globally popular content		

mender system enriching user's experience music discovery

and reactivity to the user's latest interactions

ions based on the user's geolocation



Development of custom algorithms and models that perfectly suit Audiomack's product vision and expectations of how the recommendations should behave.

Real-time data processing for near real-time deep learning models.

Delivery of recommendations in 50ms on average.

Geolocation-based recommendations to reflect specifics of 100+ cultural regions.

Leveraging hierarchical relationships between songs and artists through Item Segmentations.

Diverse and complex ensemble of models constantly optimized by artificial intelligence.

**Collaborative Filtering** 

### **Content-Based**

Cold-start recommendation for onboarding users based on provided demographical data and explicit preferences. **Reinforcement Learning (Contextual Bandits)** 



### **Item Segments**

Item segmentation is an abstraction on top of the catalog of items that allows you to group items into segments based on their properties which can be then recommended to your users.

Audiomack was our very first customer who had a chance to properly test this revolutionary feature and measured exciting performance uplift in the artist following.

There were two use cases in the app to start with: recommending artists based on your music taste and similar artists based on the ones you are already following.

Rolling out this functionality was a huge success and helped increase registered users' engagement and satisfaction with the platform.

Not only did it account for 10% of the total "follows", but if a user clicks follow, there is a 9% chance they immediately follow another artist. If they follow one of the recommendations, there's a 75% chance they follow at least one more.



### **Cold Start User Onboarding**

One of the most known obstacles recommender systems need to overcome at the beginning is the "cold start problem".

When there is a **newly added item or visitor** who came to the platform **for the first time**, there is essentially **no historical data** to work with so the models have to be a little creative in finding relevant items to recommend.

At Recombee, there are many ways we are reducing this problem whereby coming up with a new approach of advanced cold start user onboarding.

When registering on a platform, there is a set of questions being asked for explicit user preferences about e.g. their geolocation or genre taste.

This allows our unique ensemble of models to provide relevant offerings from the very beginning, making the recommendations more and more precise in real time after every new interaction and helping the newly onboarded users enjoy and bond with the platform.



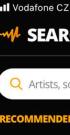
### "Recommended For You"

Content recommendations

Initially tested on the search page, the performance was so good that it was swiftly placed on a more visible place in the platform.

Now, when you open the Audiomack mobile app, the first thing you will see on the home screen is the Discover section with multiple rows of personalized songs powered fully by Recombee.

Those songs are carefully picked by our models to provide you with the most relevant offering.













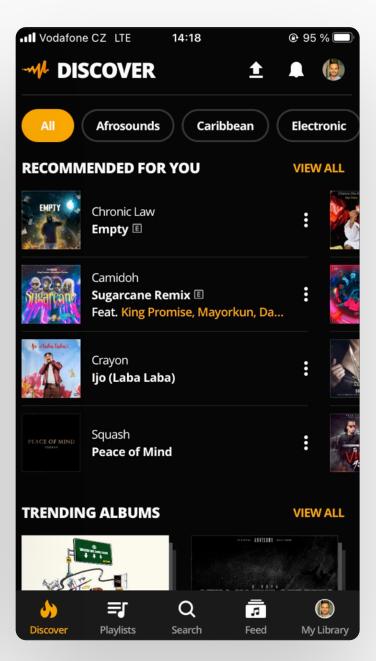




audiomack:personal Recommendation Logic



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Playlists	Q Search	Feed	My	() Library



### **Excluding Unavailable Songs & Songs with No Title**



### "Similar Songs"

Content recommendations

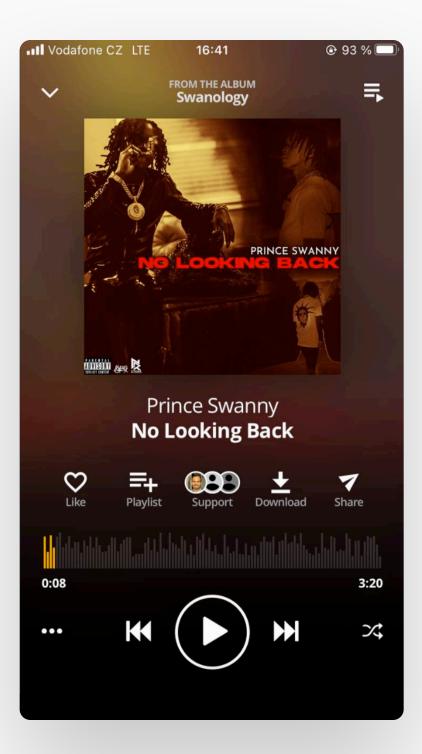
State-of-the-art ensemble of models used across many different places on the platform to extend the users listening time and provide relevant similar songs.

General Song Recommendations Queue End Recommendations Radio Recommendations

The mentioned use cases are highly reactive to the user's most recent plays and can be flexibly adjusted to e.g. show specific numbers of songs from the same artist/same album.



audiomack:similar Recommendation Logic





### "Accounts For You"

Content recommendations

A unique row of recommended artists based on your personal taste provided on the home screen of the Audiomack mobile app.

Rolling out this feature significantly increased the total number of accounts following and thus enabled the user to discover creators and artists they would have otherwise had a hard time finding.

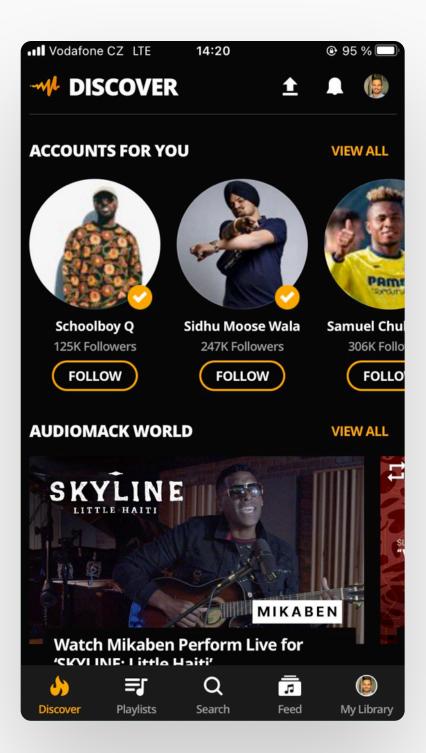
There is also a great chance that if the user starts following one of the recommended accounts, he will immediately follow another one hence enriching its content portfolio.





### audiomack:personalized-accounts

Recommendation Logic





### "Fans Also Like"

Content recommendations

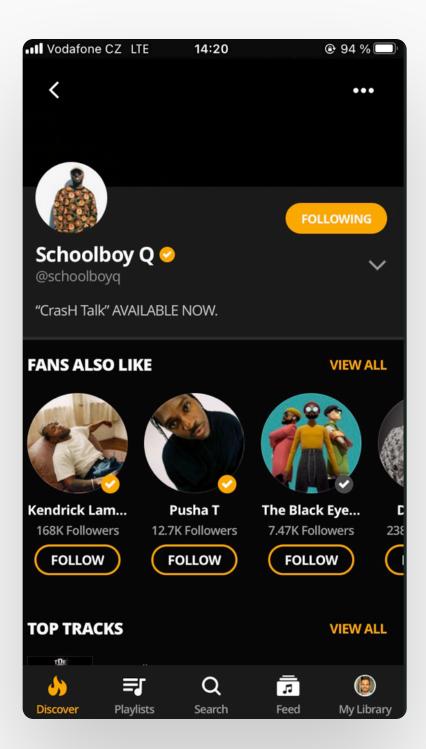
This unique scenario works very well together with the previously mentioned one helping you find the artists whose work resonates with you the most.

You will get a list of similar accounts right after you start following a new one, giving you the opportunity to relevantly broaden your musical palette.





audiomack:similar-accounts Recommendation Logic





### Results

- **206% increase** in "Monthly Plays" from recommendations
- 67% increase in "Weekly Follows" from recommended accounts +
- Best performing module within the Discovery tab, accounting for 46% of all plays





"Working with Recombee to develop an affordable solution to provide our users with excellent music recommendations has exceeded our expectations in every way. They have been able to understand the relationships in the data of our industry and create effective models to use efficiently. We also appreciate the nuance and flexibility they offer when it comes to deciding the right solution based on quality, cost, complexity, speed, and other factors."

Ty Wangsness, Founder/CTO at Audiomack





"Striving to be the ever limitless music sharing and discovery platform, we need to make sure the user experience of our listeners is smooth and sound. And one of the most critical aspects of achieving such a goal is content personalization tailored 1:1 in real-time. That's why we switched to Recombee. Thanks to their recommender engine, our **monthly plays increased by 206**% and **weekly follows by 67%.** Because the recommendations performed so well, we moved them from our Search page to the top of our main Discover tab. They are now **the best-performing module within that tab, accounting for 46% of all plays."** 

Christopher Dalla Riva, Senior Product Manager at Audiomack





"Why waste time and money on the development of your own recommender system, if you can use the most advanced engine tailored by data scientists."

Excellent scalability, big data infrastructure Universal SaaS solution verified on multiple verticals Real time machine learning Simple and intuitive API + SDKs for easy integration Research and improvements on sophisticated algorithms and AI Graphical user interface for monitoring KPIs



## For more info contact business@recombee.com