YouTube and Spotify Music Trends & Insights – Project Overview

The goal of this project is to take a deep dive into the analytics of music tracks on both YouTube and Spotify in order to see what are the attributes that lead to the increase of Key Performance Indicators (KPIs). We will also contrast the two platforms with the aim of discovering why they are different.

Introduction

Spotify and YouTube are incredibly influential in the online music industry. Spotify is a leading audio streaming service that provides access to millions of songs and podcasts. It offers personalized and customizable playlists with recommendations based on user listening habits. It’s approach is data-driven and has reshaped global music using curation and new forms of music discovery.

YouTube is the world’s largest video-sharing platform and is a hub for music which includes artists sharing music videos, live performances, and audio content. YouTube has an algorithm of its own and is used to promote and discover music.

We can learn important insights on how users engage with music and reveal trends in song duration, engagement rate, and many other factors that promote a song in popularity.

Insights Summary

The key metrics that we focused on were:

Song Duration: The length of the track in milliseconds.

Views: The amount of views the video received on YouTube.

Streams: The amount of streams on Spotify.

Engagement Rate: This is a metric we created by adding up the likes and comments and dividing them by views.

Song Duration

* When looking at the effect of Duration on Spotify streams, we can see that songs at 200,000ms or around the 3:30 second mark, have the highest average streams. The amount of average streams consistently rise until that peak at 200000ms, then slowly begin to drop as the duration increases.
* The highest amount of average streams is 158,052,039 while the lowest is at 19,440,985.

Views and Engagement Rate:

* We took a sample of the top 10 YouTube videos based on engagement rate and charted them with the number of views. It resulted in a strong positive correlation.

Top Artists on Each Platform

* We took a look at the top 10 artists on each platform based on views/streams. On the top 10 artists in terms of YouTube views, 5 of them had more streams than views. As opposed to the Top 10 artists on Spotify who all had more streams than views.
* Imagine Dragons, Coldplay, and Bruno Mars are on both lists.

Stream/View Correlation:

* We made a scatter plot with the x-axis as the streams a song had and the y-axis as the number of views. Surprisingly there is a low positive correlation.

Recommendations:

* Promote Engagement: The strong positive correlation to the amount of views a video gets. This may be because of several factors including the algorithm or even subconscious conformity.
* Keep Duration within Range: The best song duration range for maximizing streams is between 150000ms and 250000ms. Having a song outside of that range puts it at risk of having lower stream counts.
* Post on Both Platforms: Many of the top Spotify artists are missing an intentioned and precise approach to YouTube even though the platform has a high amount of users. Adding more effort to YouTube will increase streams.