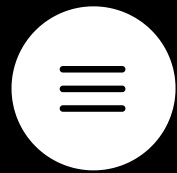




SPOTIFY

CSB311 Spring 2024

# SPOTIFY'S BEST SONGS FROM 2000 TO 2023



# DATASET DESCRIPTION

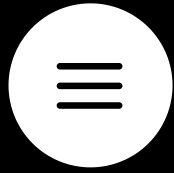
- ➔ Top 100 songs for every year from 2000-2023
- ➔ The characteristics values were generated by extracting data from a playlist on the user's Spotify account using the web tool <http://organizeyourmusic.playlistmachinery.com/>, which analyzes attributes such as BPM, danceability, speechiness, and popularity of each song.

**2385**

Songs

**13**

Variables



## RESEARCH QUESTION

How has the evolution of musical characteristics, artist prominence, and genre trends on Spotify shaped the landscape of popular music over the past two decades?



# DATASET TERMINOLOGY I

## TOP GENRE

The genre of the song.

## BPM

BPM (Beats Per Minute), tempo of the song.

## ENERGY (0-100)

Shows the level of energy in a song. The higher the value, the more energetic a song is.

## DANCEABILITY

The higher the value, the easier it is to dance to this song.

## DB

Represents the volume/loudness of the song. DB stands for Decibel.







# DATASET TERMINOLOGY II

## LIVELINESS

The higher the value, the more likely the song is a live recording.

## VALENCE

Describes the musical positiveness conveyed by a track. Tracks with high valence sound more positive.

## ACOUSTICNESS (0-100)

Measures how acoustic the song is. A song with a higher value for acousticness has less singing.

## SPEECHINESS (0-100)

Measures how much singing there is in a song

## POPULARITY (0-100)

Measures how popular a song is on Spotify





Why was the dataset identified?

# Rationale

The dataset's focus on top-performing songs each year ensures that the analysis is grounded in music that has had significant cultural impact, providing insights into the mainstream music landscape.





# EXPLORATORY DATA ANALYSIS (EDA)

**119.8**

Average BPM  
(60-211)

**15.61**

Average  
Acousticness

**67.03**

Average  
Danceability

**69.79**

Average  
Energy

**54.23**

Average  
Valence

**10.11**

Average  
Speechiness

SD: 16.16



2000-2023

# RESEARCH QUESTIONS

1. Which artist has been on the top 100 playlist the most amount of times from 2013-2023 (in the last decade)?
2. How do the characteristics of top songs in different years compare to each other?
3. To what extent does the average speechiness of songs differ among various genres?
4. Are there any correlations between danceability and bpm within specific genres (such as KPOP, Dance Pop, etc.)?
5. How have genre preferences among Spotify listeners evolved over time?
6. How have the top three dominant genres changed over the years?





# Tableau Dashboard

An overview of our datasets in our dashboard addressing these different research questions

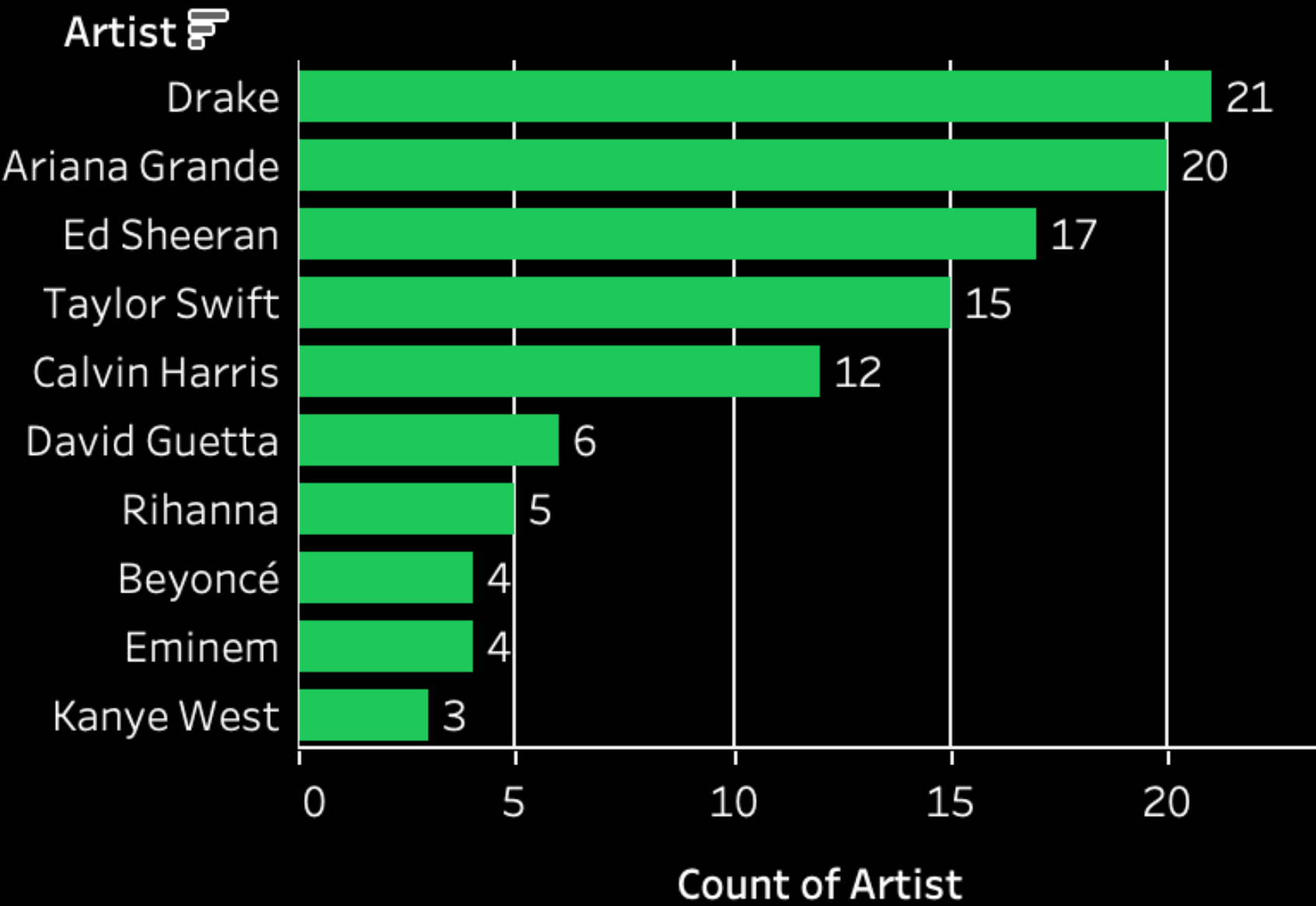




2013-2023

# TOP 10 ARTISTS

Showcasing the top artists and top 3 artists' percentage of music out of the top 10 artists' total songs filtered by 2013-2023

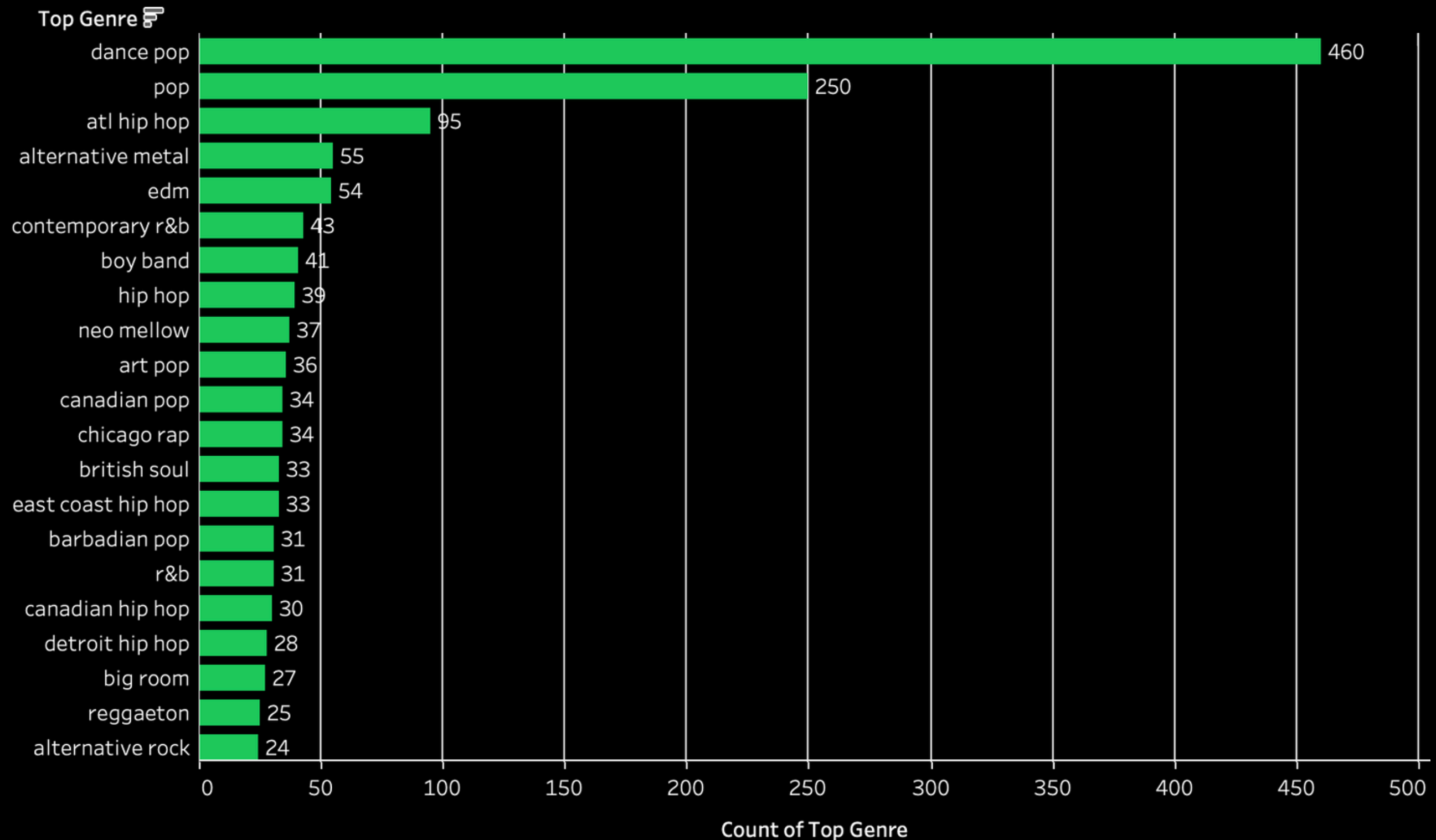






# MOST POPULAR GENRES BY COUNT

Most Popular Genres By Count

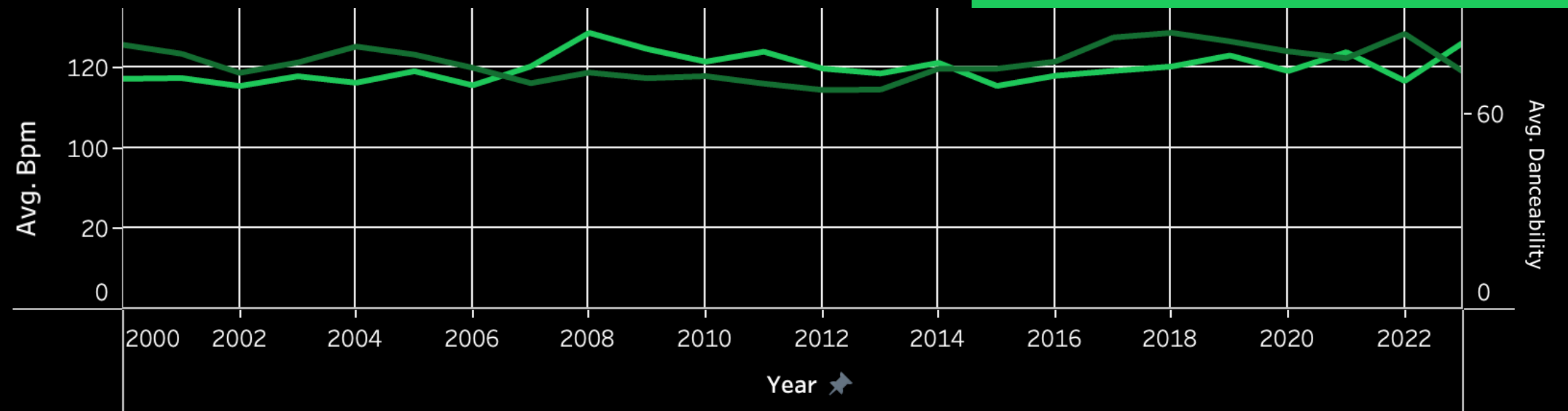




2000-2023

# BPM VS DANCEABILITY

Showcasing how the difference in BPM of a song affects its danceability

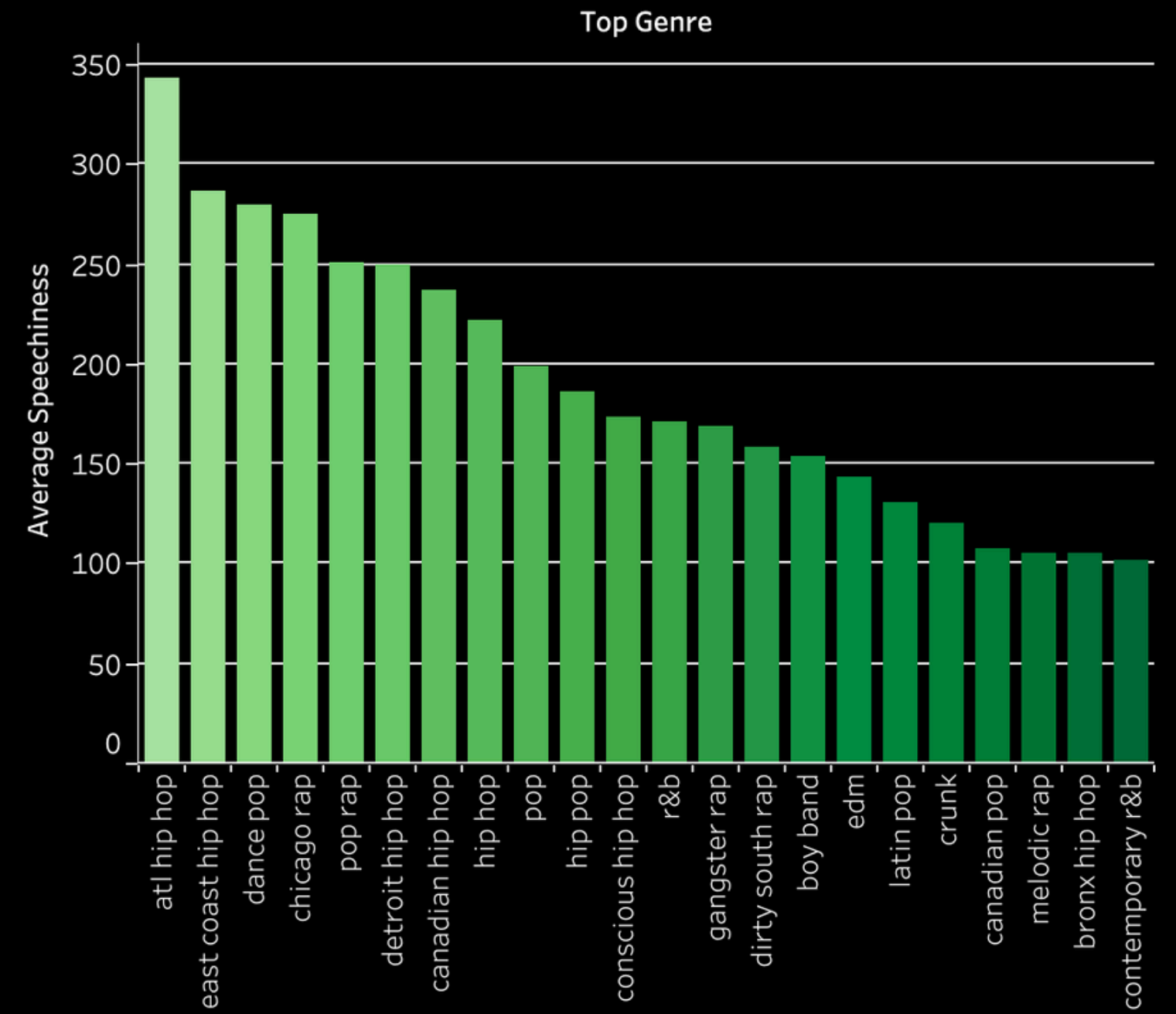




2000-2023

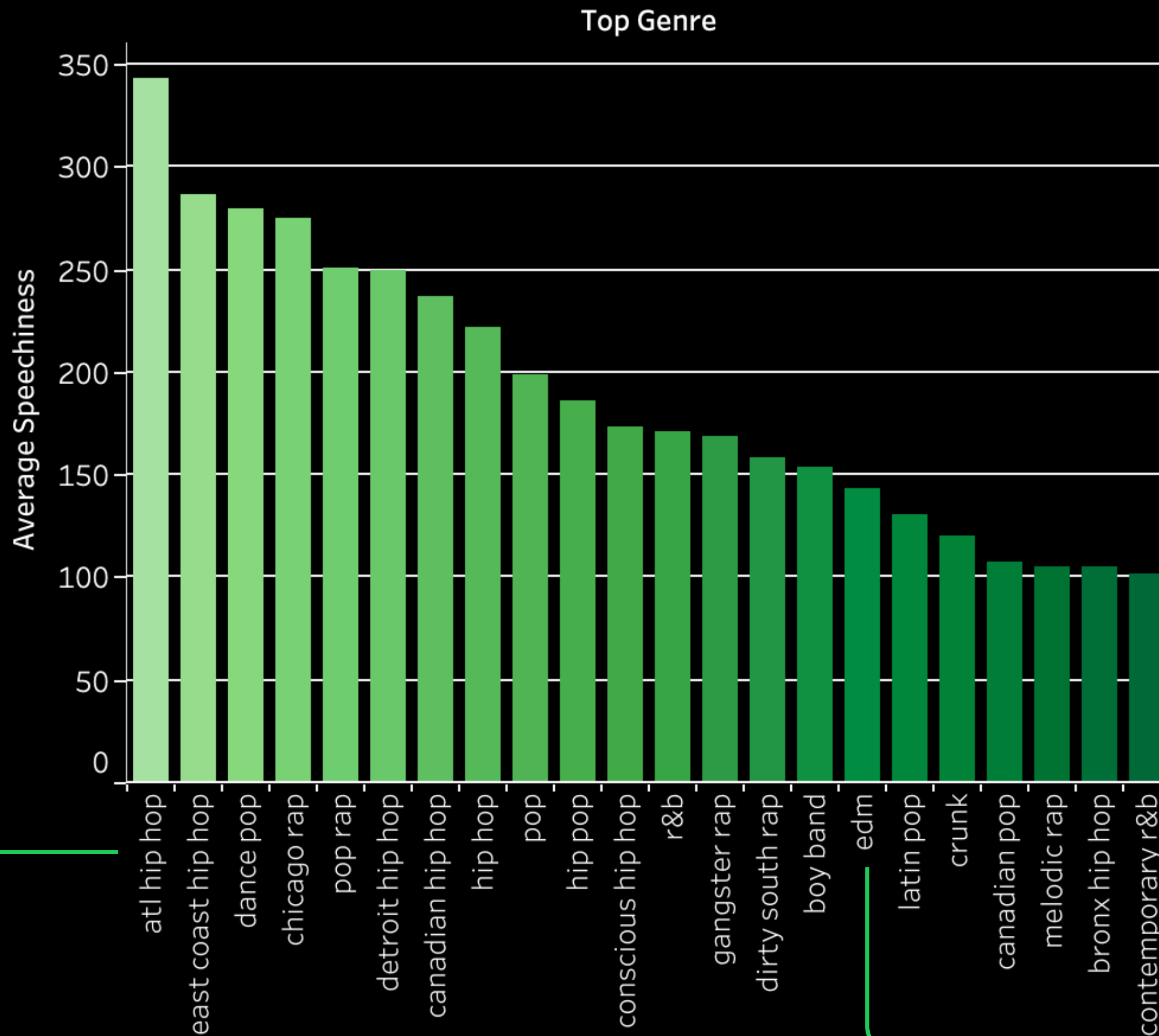
# AVERAGE SPEECHINESS BY GENRE

Showcasing the relationship between how many words (on average) are in a song to their respective genre.





**Hip hop leads  
in speechiness,  
followed by  
pop**



SPOTIFY

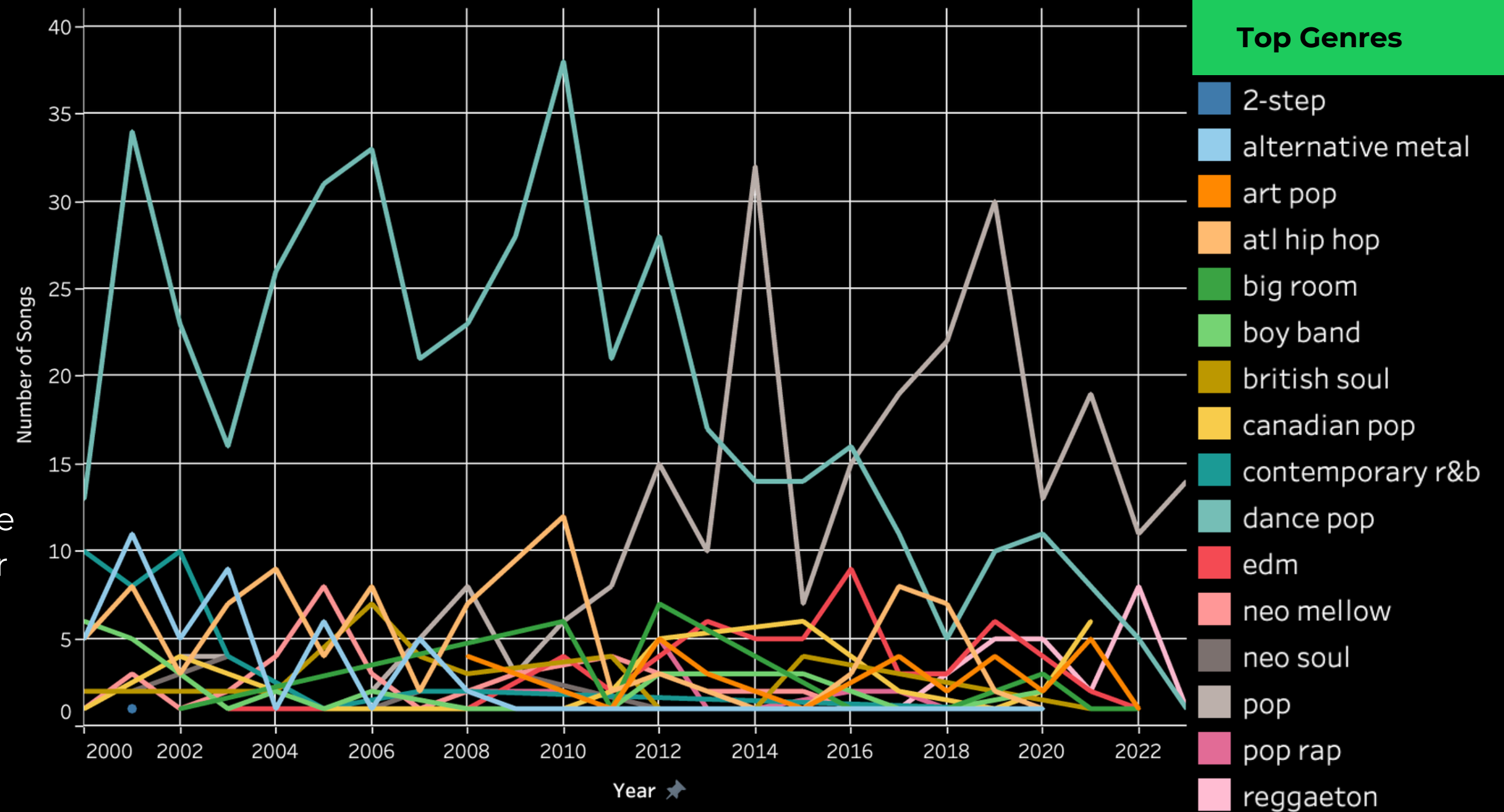
**EDM ranks in the  
top 10 most verbal  
genres, higher than  
some r&b and rap  
sub-genres!**



2000-2023

# MOST POPULAR GENRES

Showcasing the genres with the most billboard appearances per year.



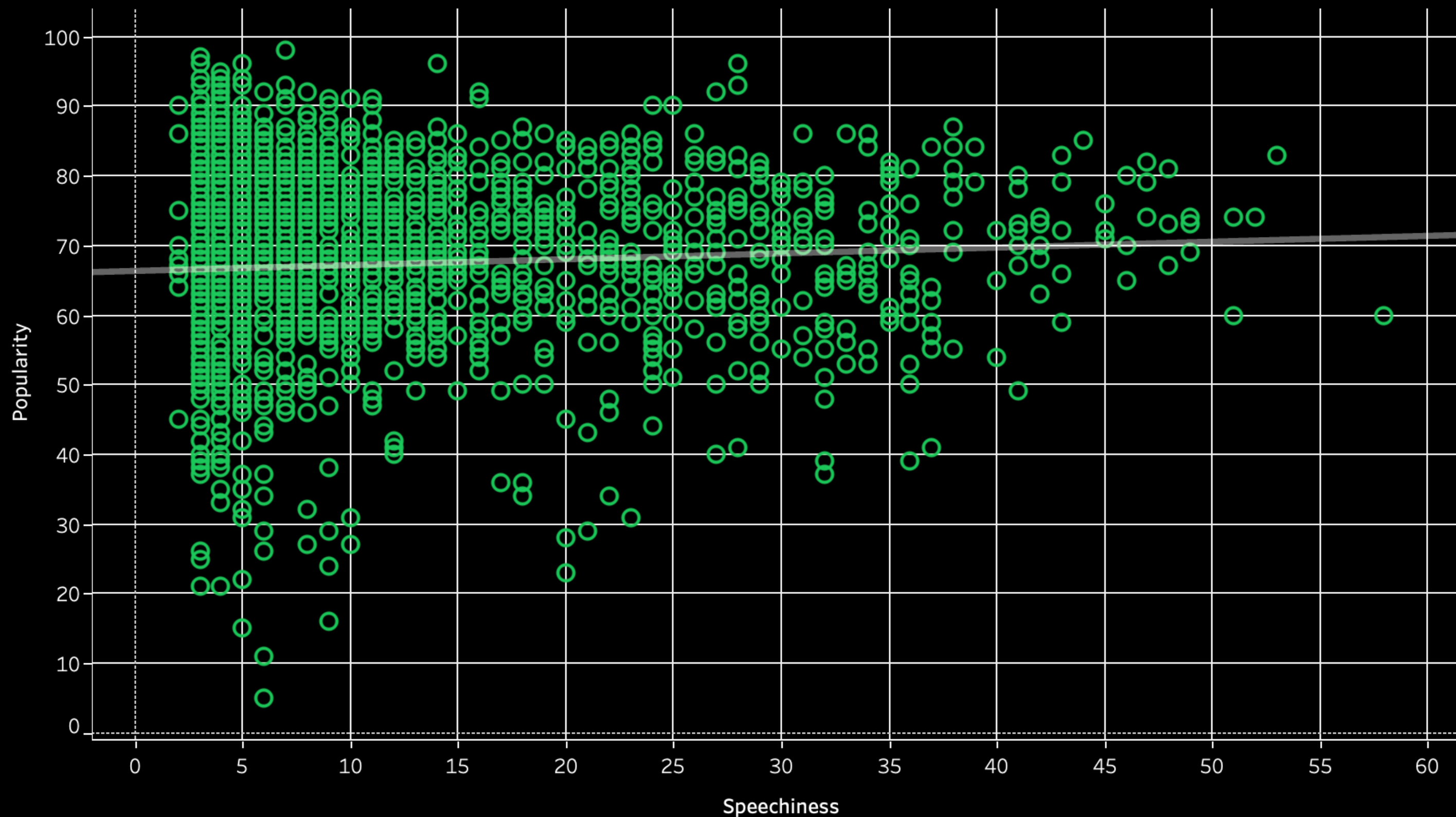


# POPULARITY VS SPEECHINESS

SPOTIFY



Popularity vs Speechiness



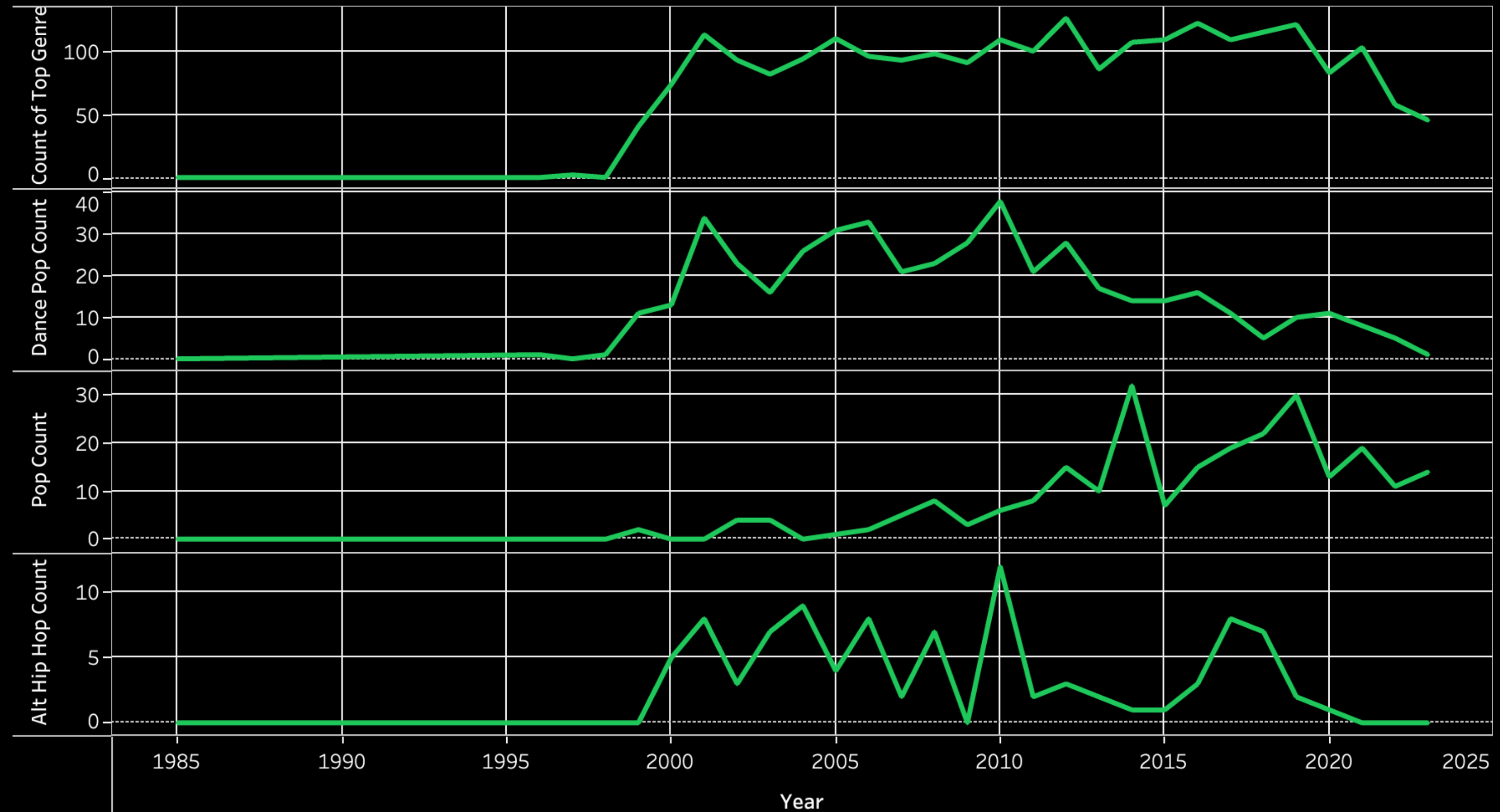


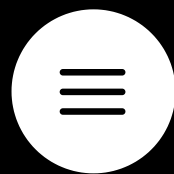


# TOP 3 GENRES VS YEAR

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Top 3 Genres vs Year





SPOTIFY



Thank You!  
**QUESTIONS?**

**CITATION**

<https://www.kaggle.com/datasets/conorvaneden/best-songs-on-spotify-for-every-year-2000-2023/data>