

143 Final Project

Analyzing Trends of Music Lyrics and Features Throughout the Decades

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OUTLINE

01 **Introduction**

02 Basic Characteristics

03 Analysis

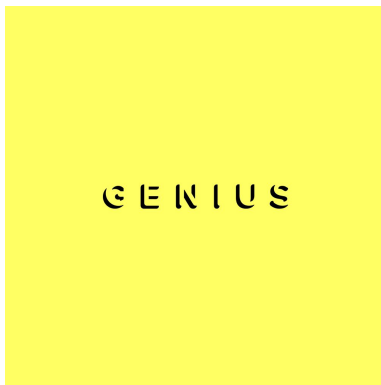
04 Conclusion

Motivation

Analyzing:

- Basic Characteristics
- Genres and Features
- Lyrics and Sentiment
- Changes throughout the years

The Data






Hot 100 List

Lyrics

Song Features

What is Billboard “The Hot 100” list?

<div>billboard</div> <div>CHARTSNEWSVIDEOPHOTOSPRONEWSLETTERS</div> <div>SubscribeSign in</div>						
<div>←BILLBOARD 200ARTIST 100HIP-HOP/R&B SONGSCOUNTRY SONGSVIEW ALL</div> <div>THE HOT 100</div>						
1	The Box Roddy Ricch	1	1	12		
2	Life Is Good Future Featuring Drake	2	2	7		
3	Circles Post Malone	3	1	26		

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01 Introduction

02 **Basic Characteristics**

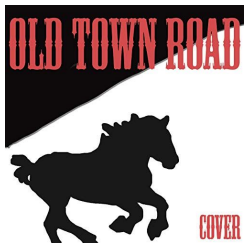
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Basic Characteristics

The most popular song?

Most weeks at number one on the Billboard Hot 100



Old Town Road
Lil Nas X
19 times



One Sweet Day
Mariah Carey
16 times



Despacito
Luis Fonsi & Daddy Yankee
16 times

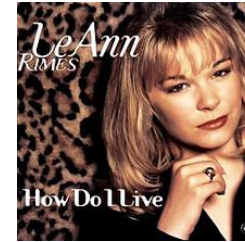
Most total weeks in the top 10



Shape Of You
Ed Sheeran
33 times



Girls Like You
Maroon 5
33 times



How Do I Live
LeAnn Rimes
32 times

Most total weeks on the Hot 100



Radioactive
Imagine Dragons
87 times

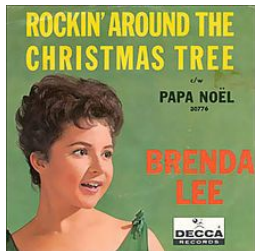


Sail
Awolnation
79 times

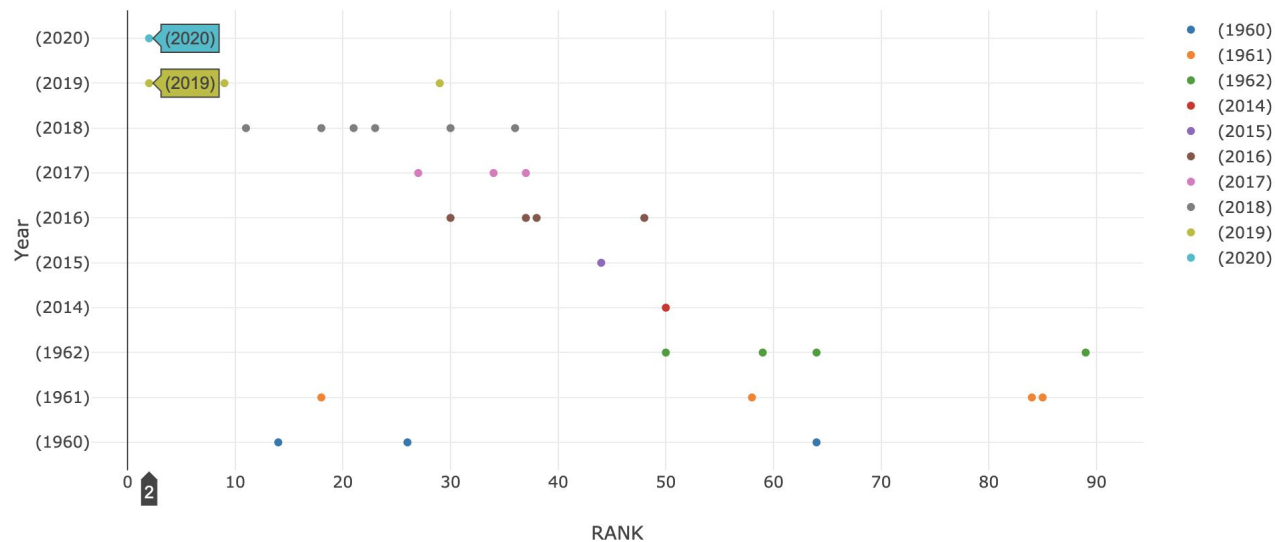


I'm Yours
Jason Mraz
76 times

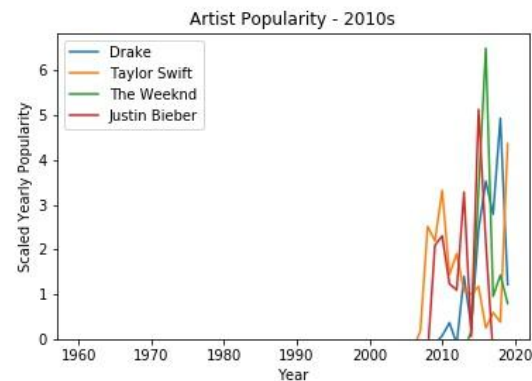
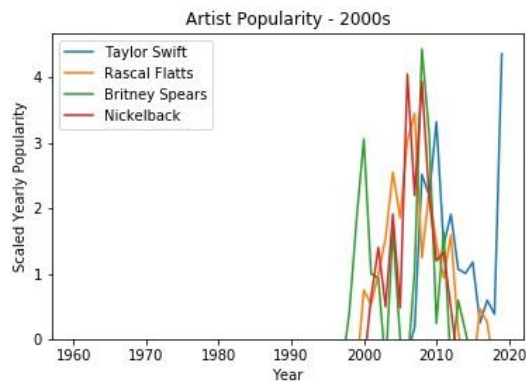
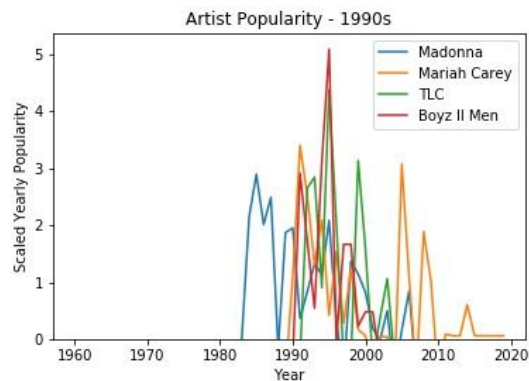
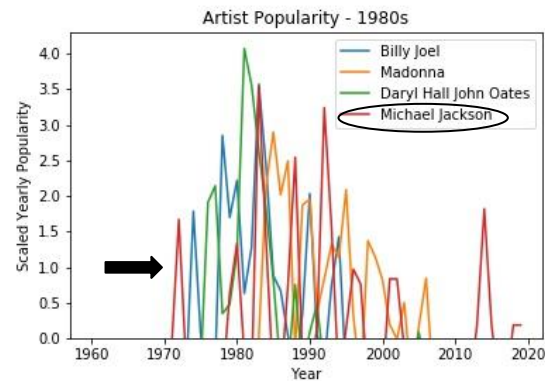
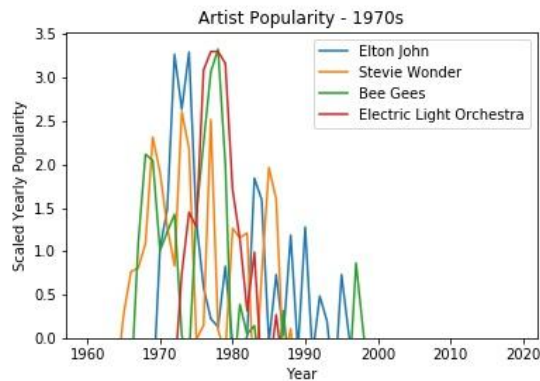
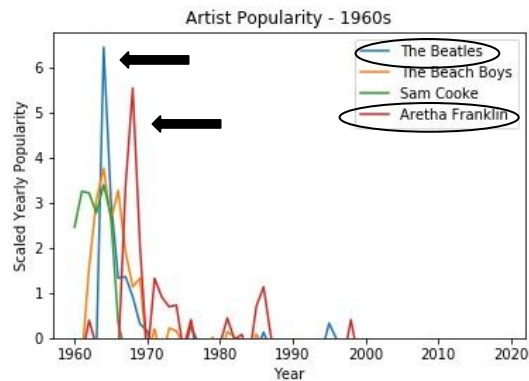
So, it depends on the metrics.



Rockin' Around The Christmas Tree by Brenda Lee



Are the most popular artists in the past generations still popular now?



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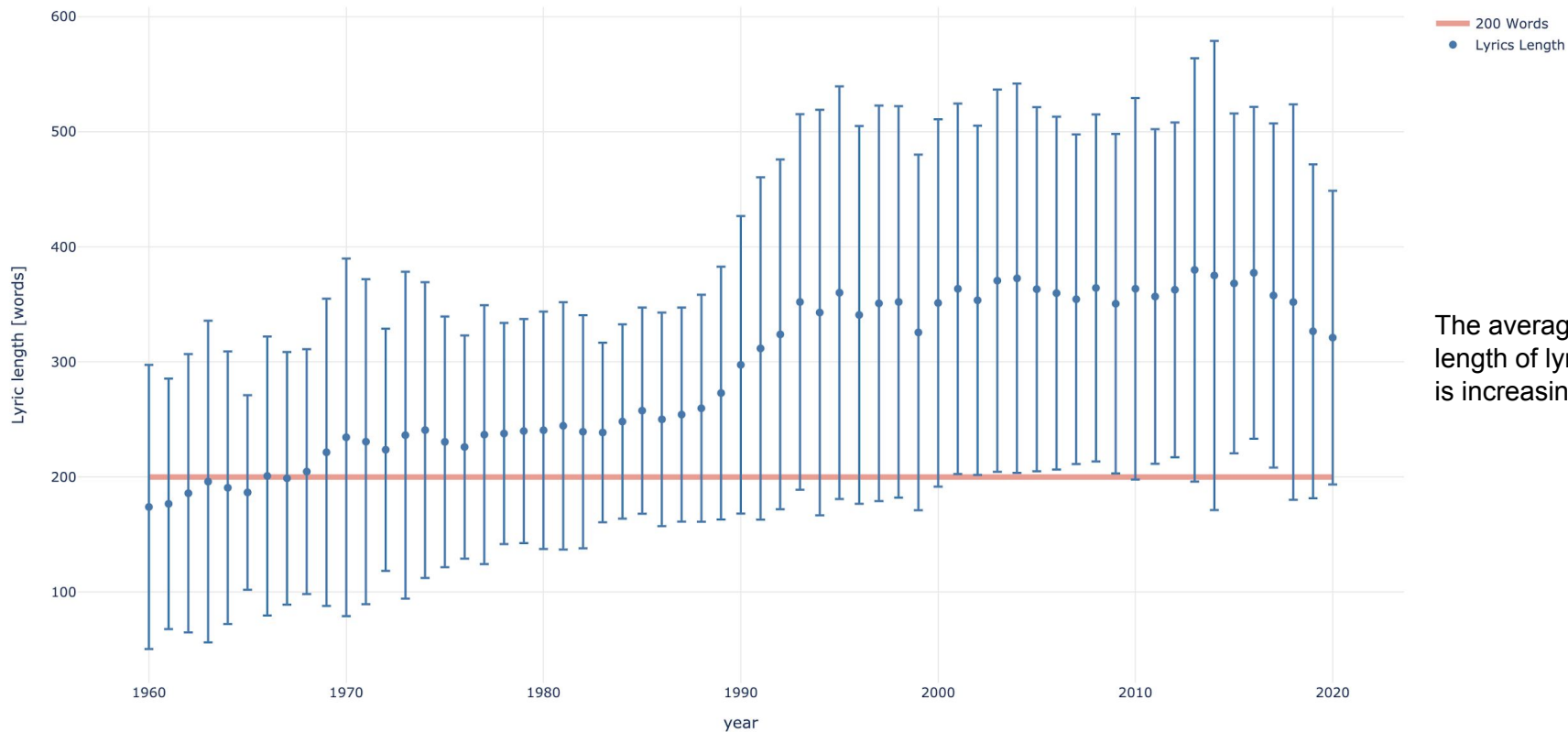
04 Conclusion



Analysis:

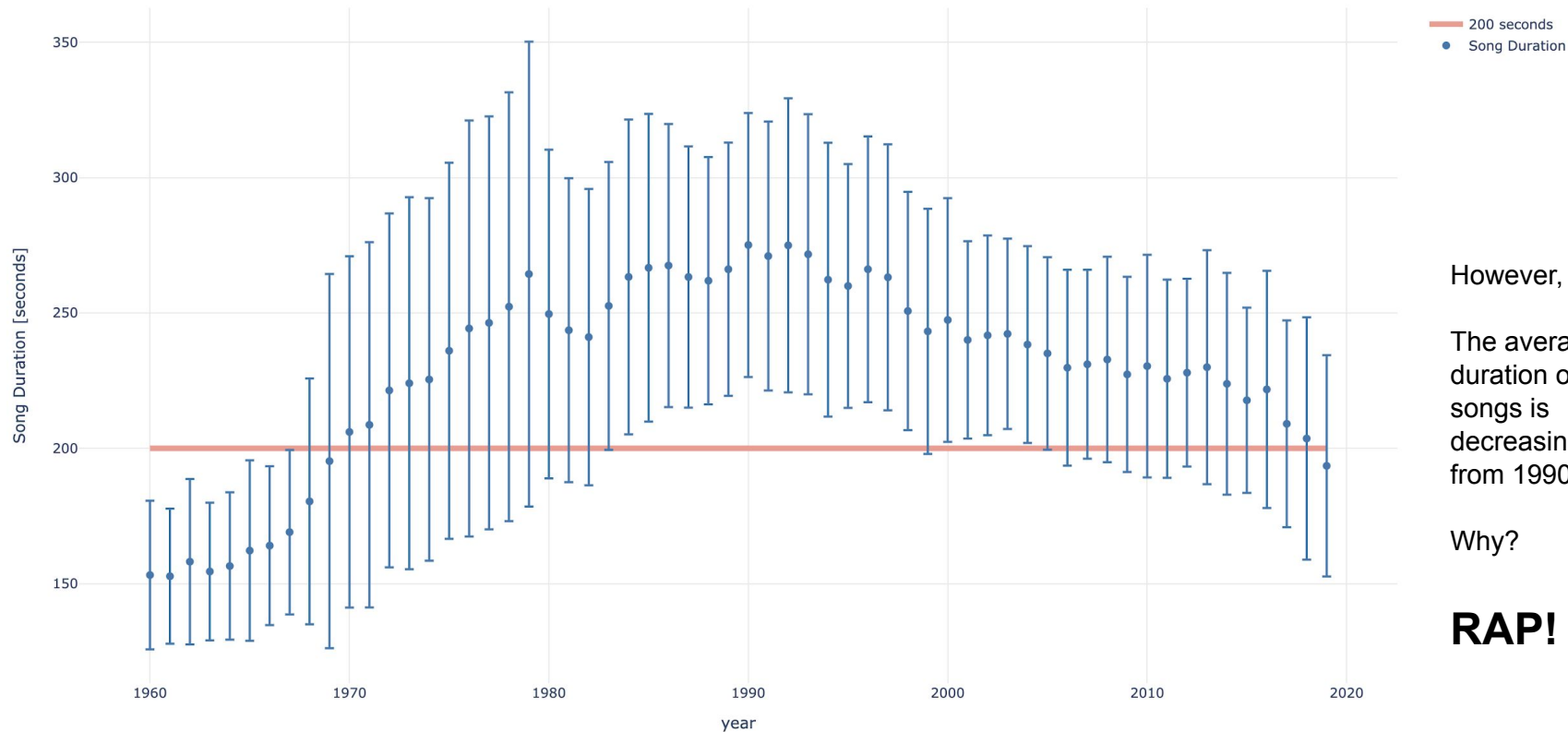
- How are these characteristics changing over the years:
 - Lyrics length
 - Song durations
 - Number of unique words

Average Lyric Length in words



The average
length of lyrics
is increasing

Average Song Duration in seconds



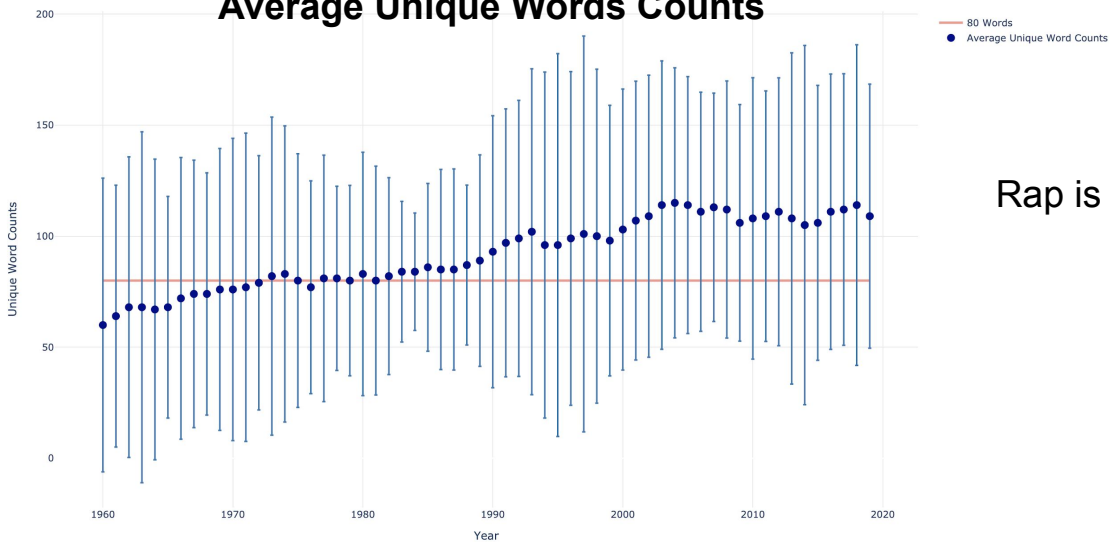
However,

The average
duration of
songs is
decreasing
from 1990s

Why?

RAP!

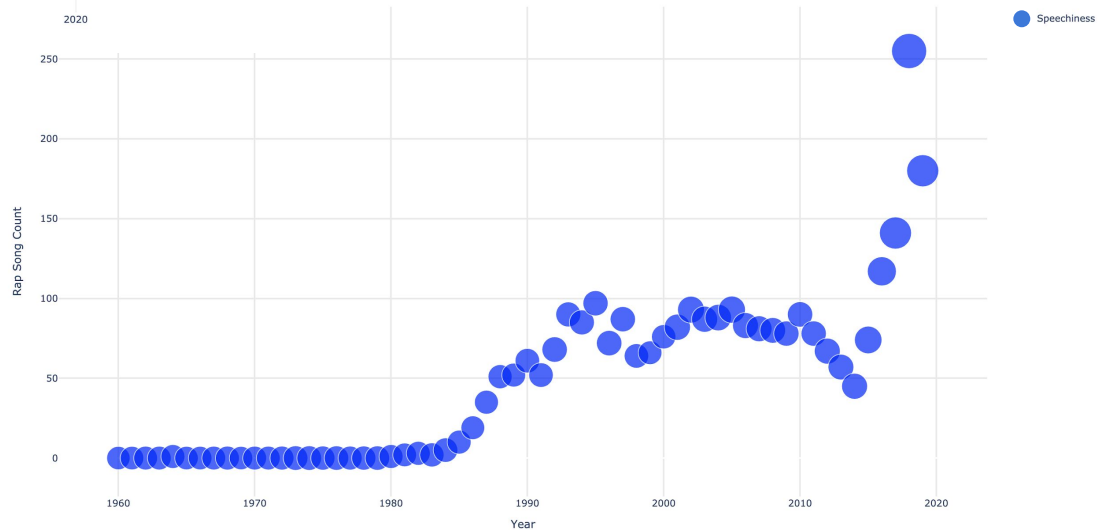
Average Unique Words Counts



Rap is rising, unique words too.

Rising of rap increases speechiness

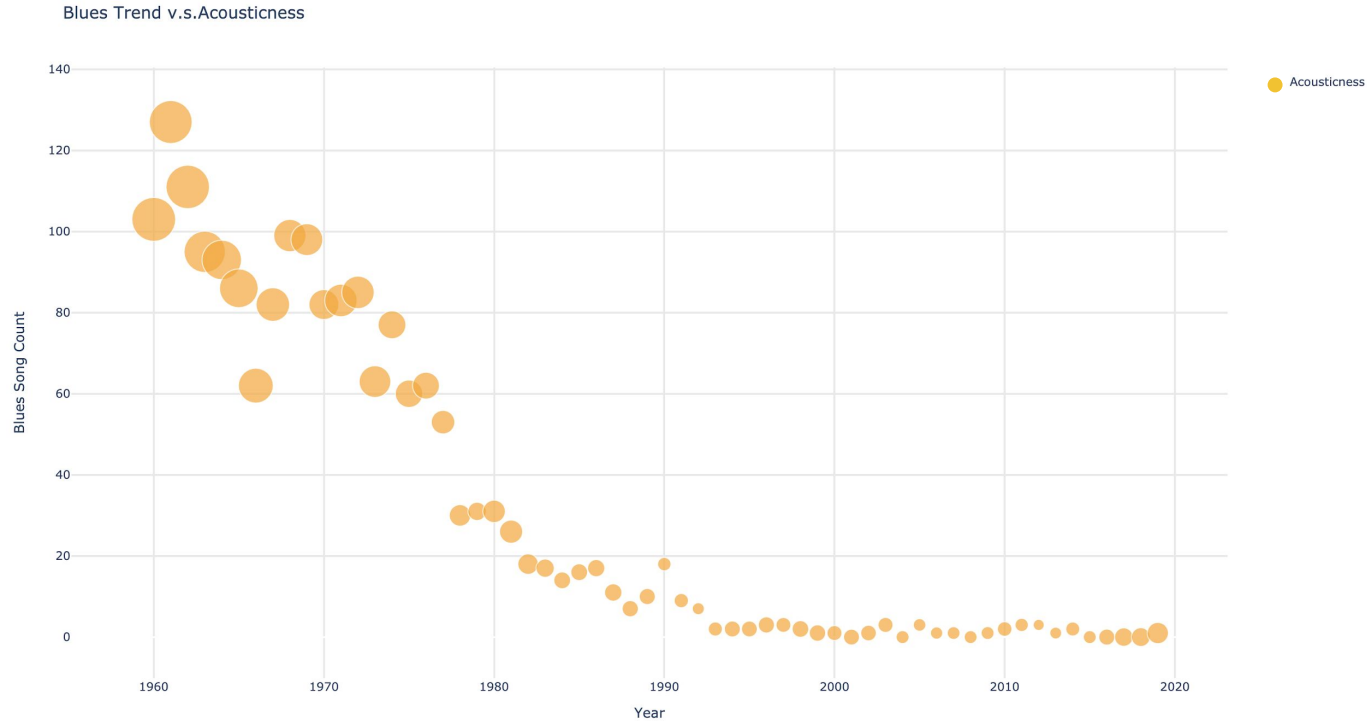
Rap & Speechiness



Analysis:

- So, rap is rising and speechiness is increasing.
- How about other genres and song features over the years:
 - Genres & features
 - Popular genres

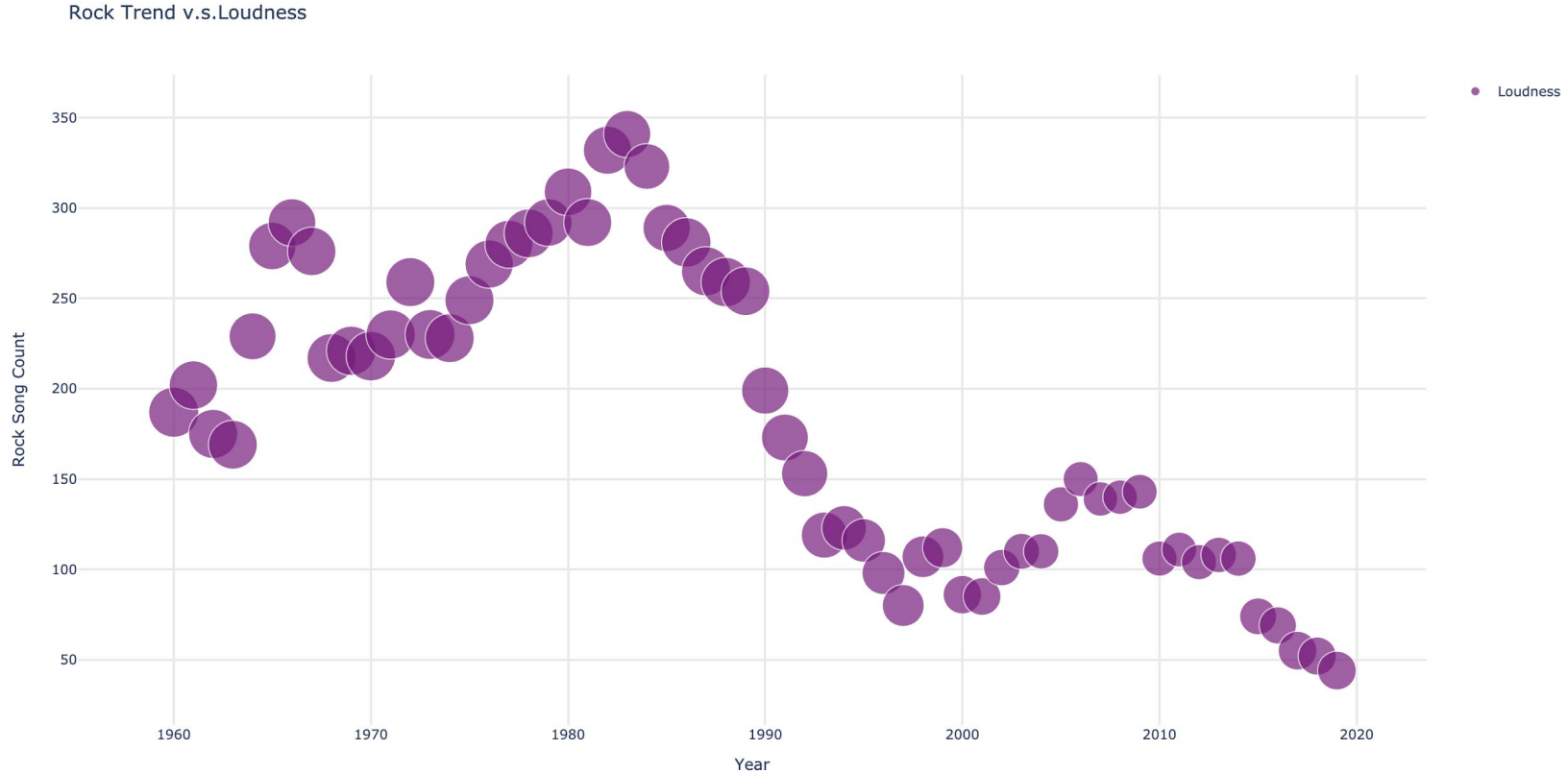
Blues & Acousticness



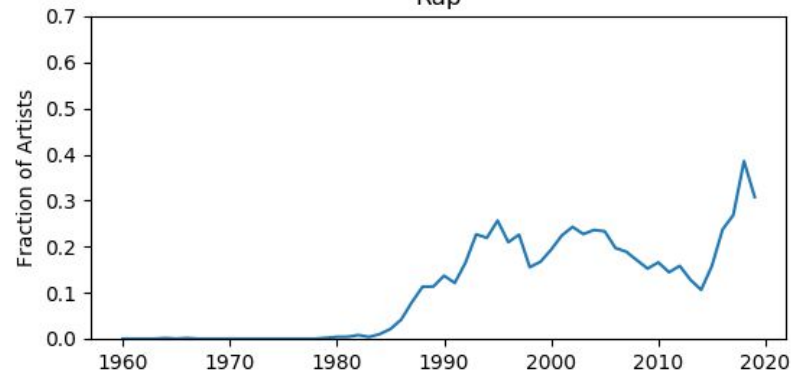
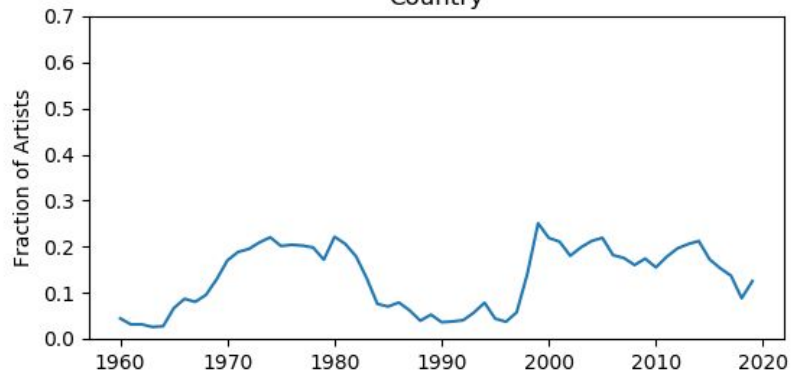
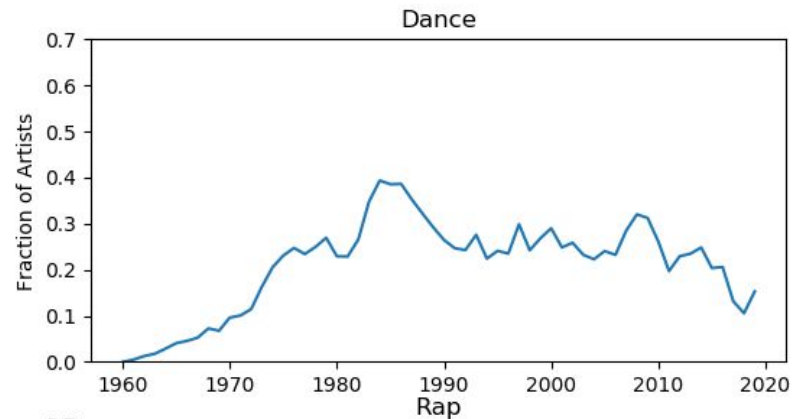
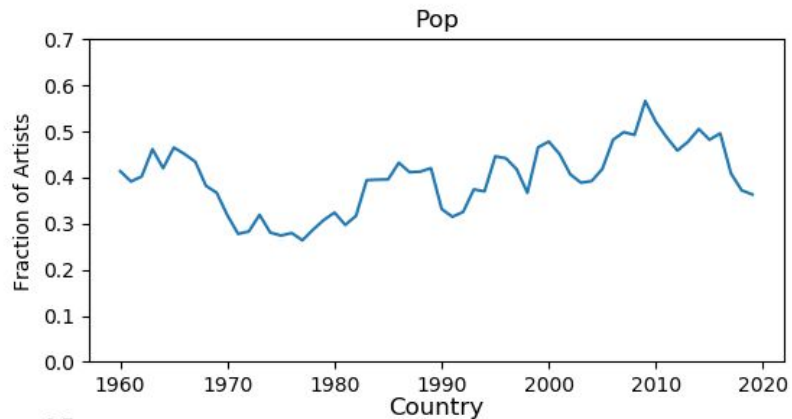
Acousticness decreases
along the years

Rock & Loudness

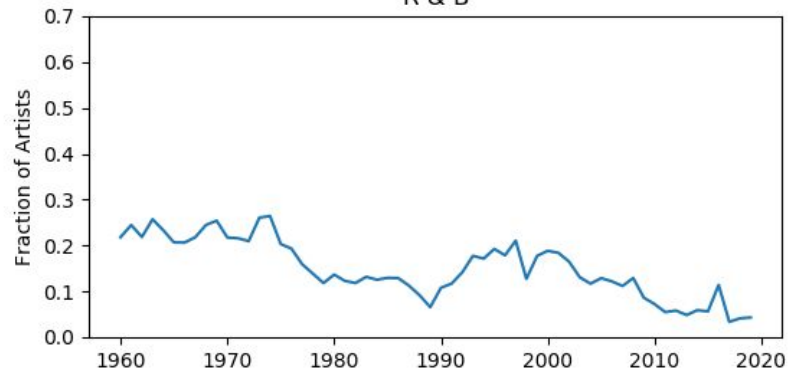
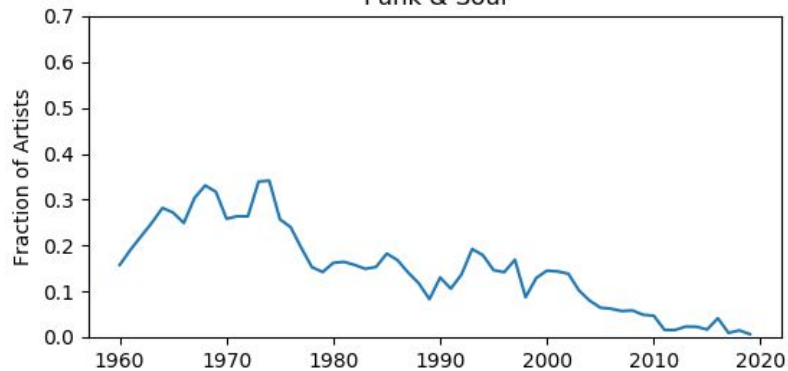
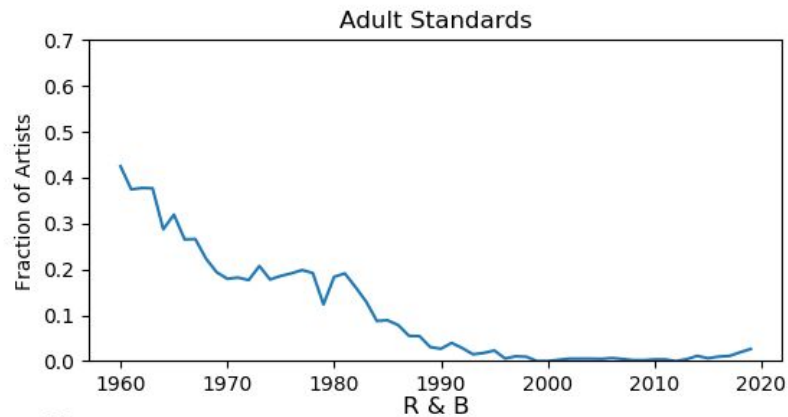
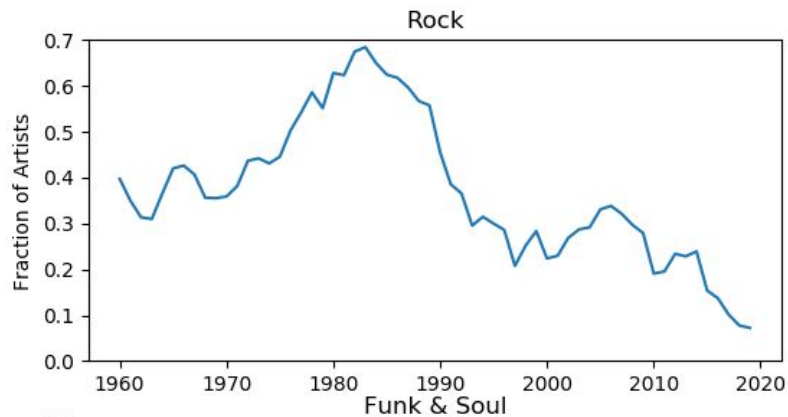
- Rock is dying
- People are losing interests in songs with high loudness



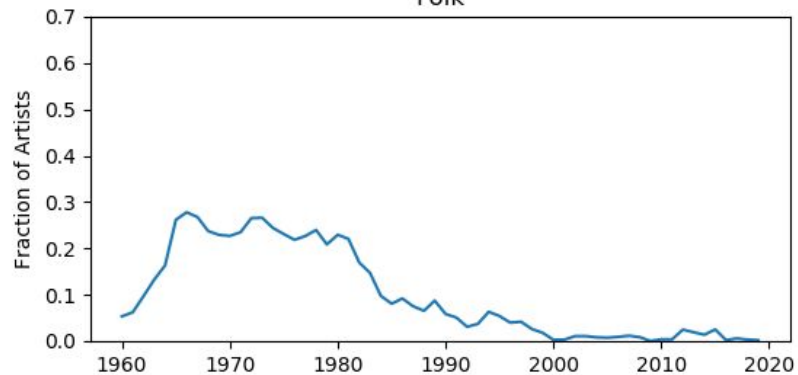
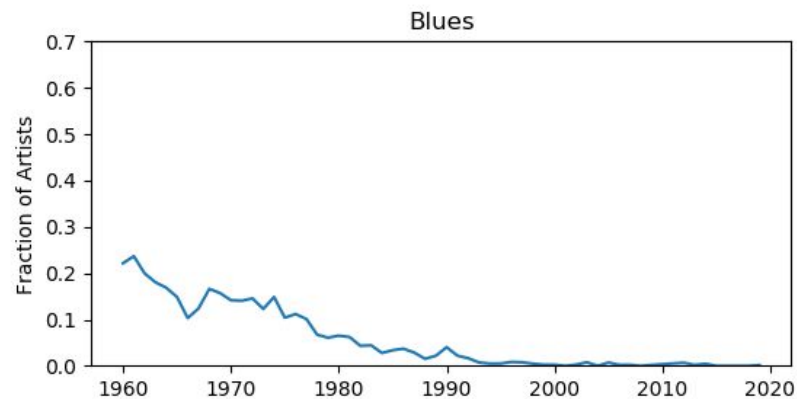
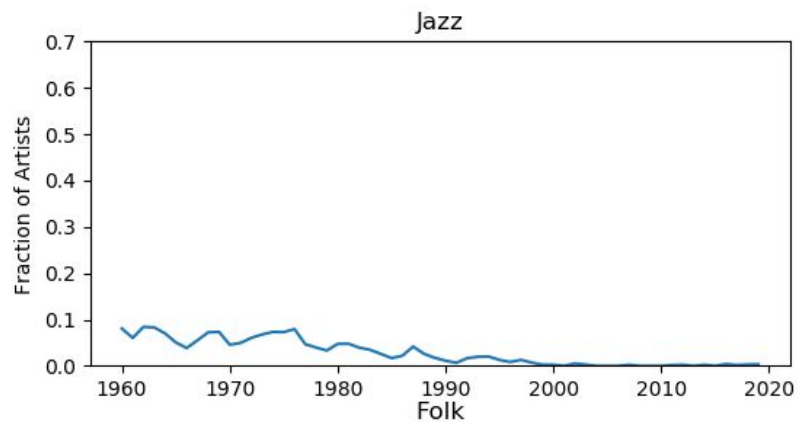
Rising or Steady Genres:



Dying Genres:

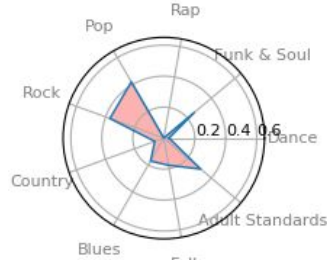


Dying Genres:



Genres in Different Decades

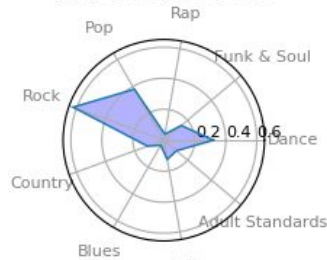
Artist Genres: 60s



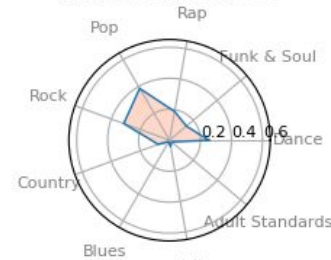
Artist Genres: 70s



Artist Genres: 80s



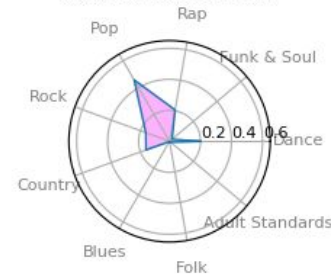
Artist Genres: 90s



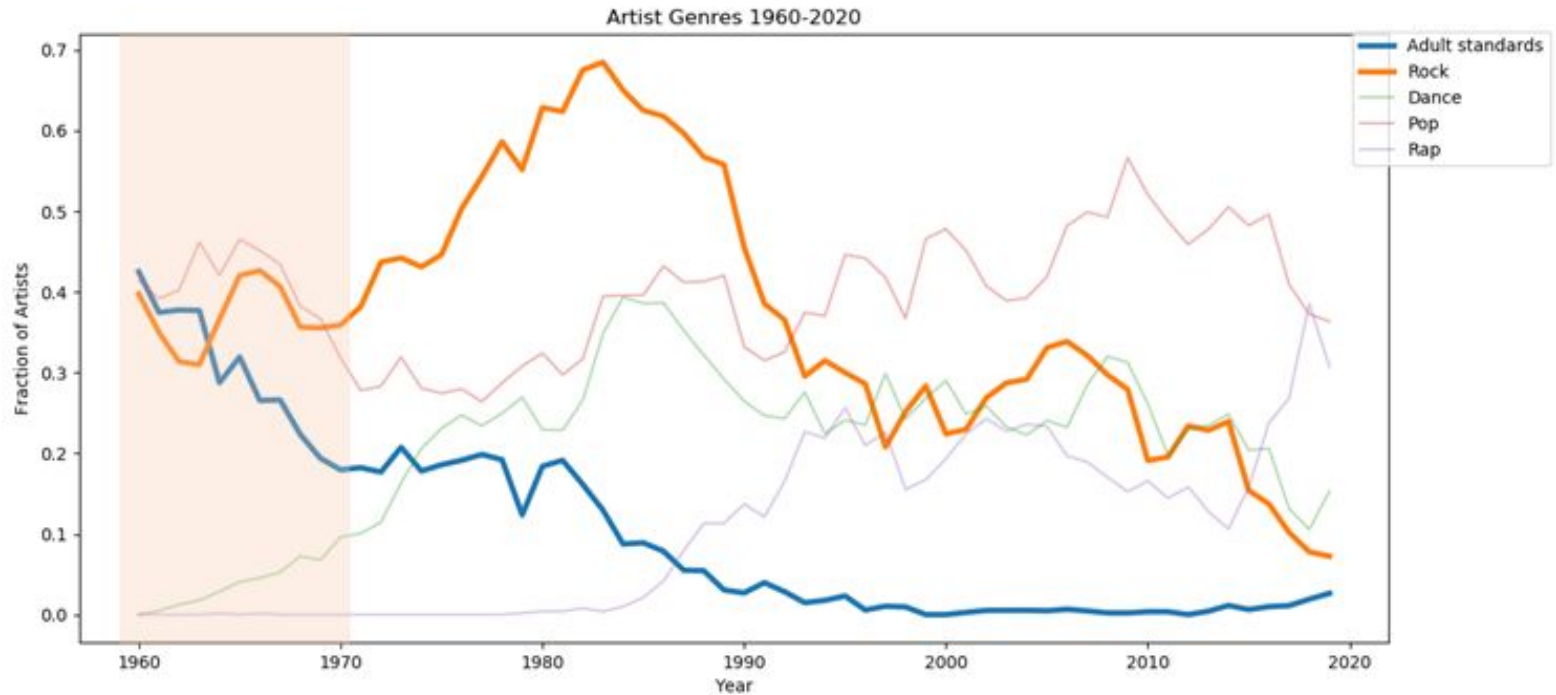
Artist Genres: 00s



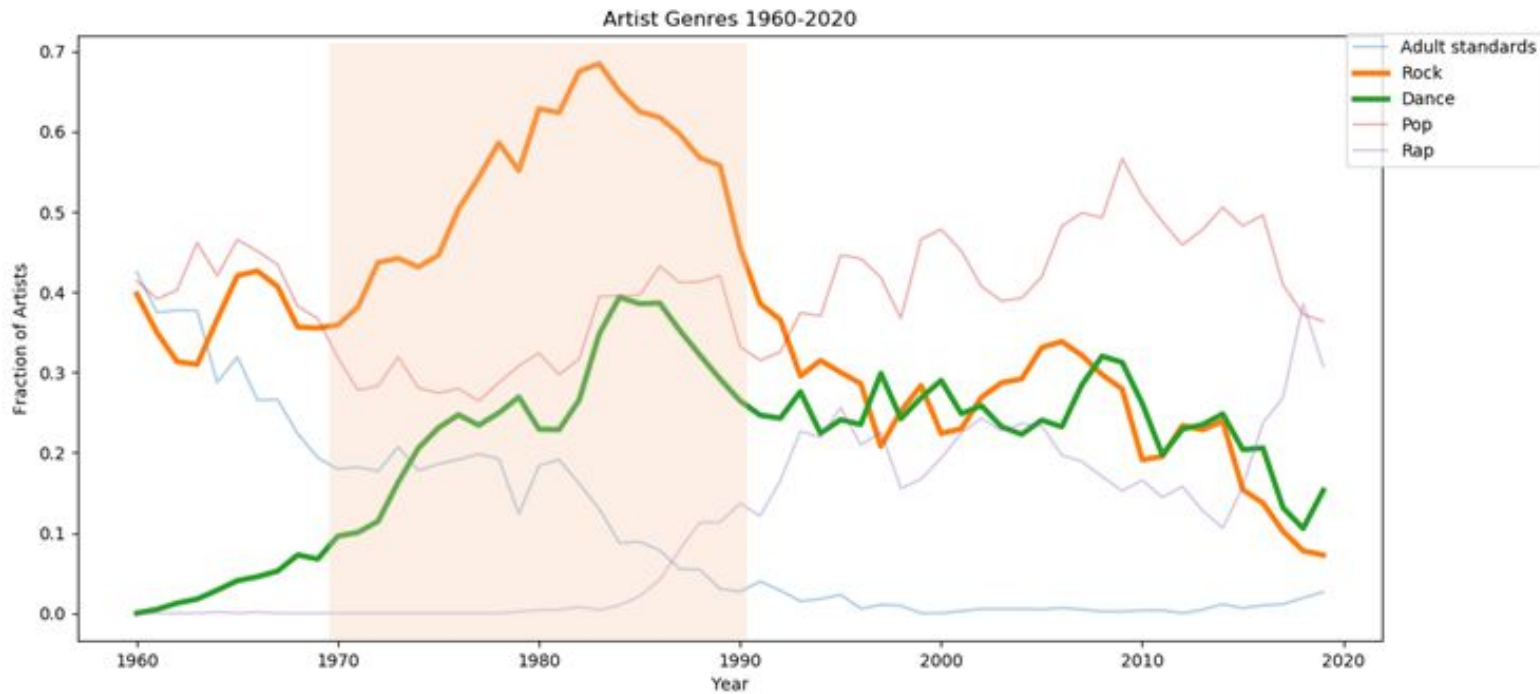
Artist Genres: 10s



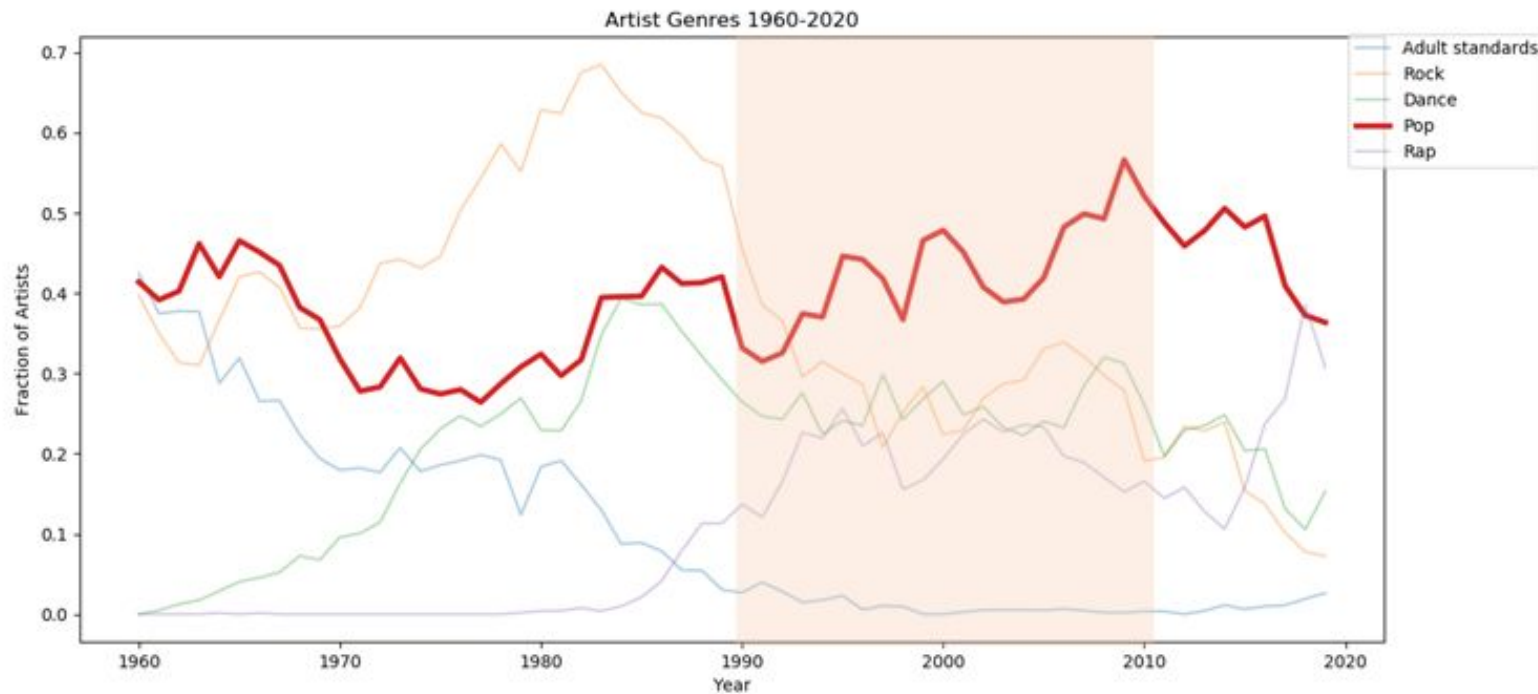
60s: The Rock'n'Roll Era



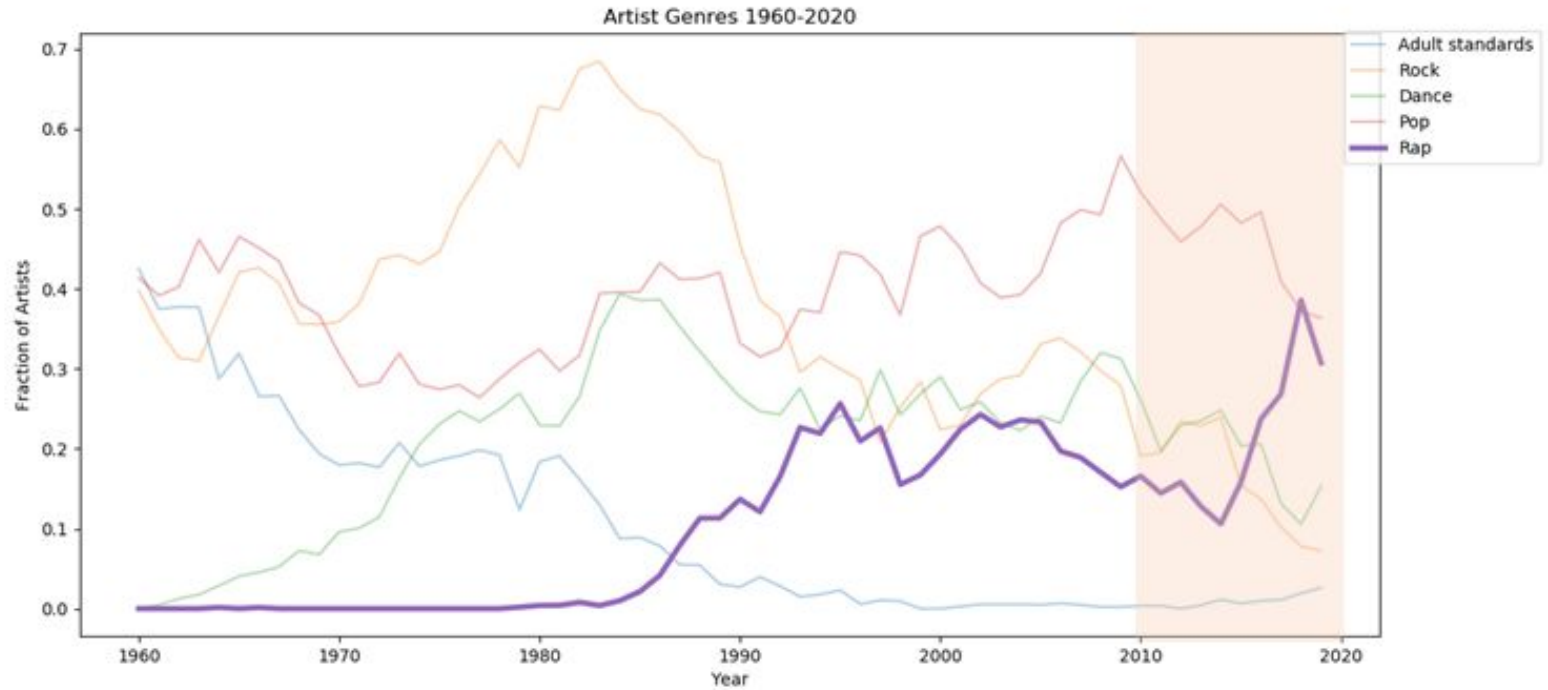
70s-80s: Rock and Dance



90s-00s: Pop



10s: Rise of Rap

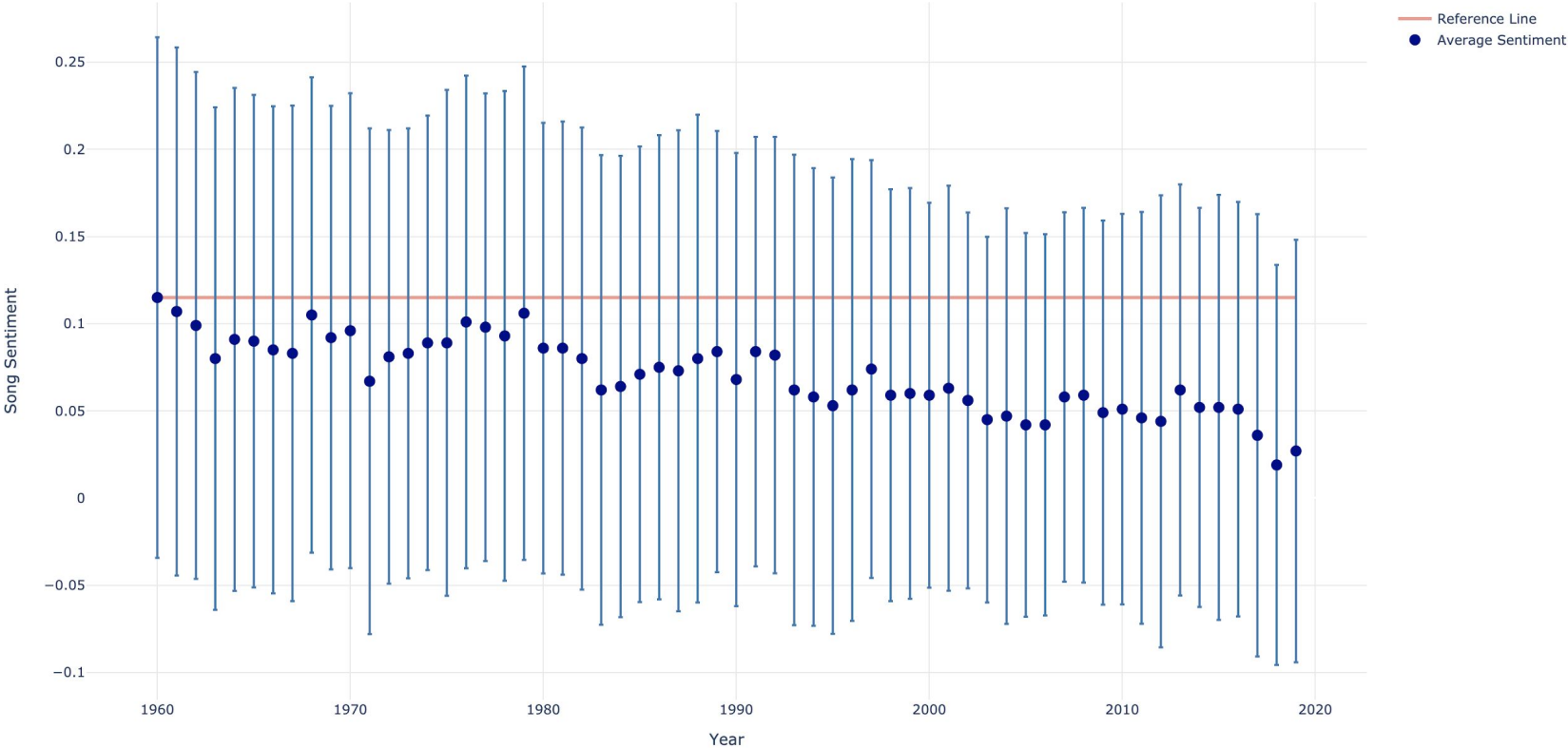




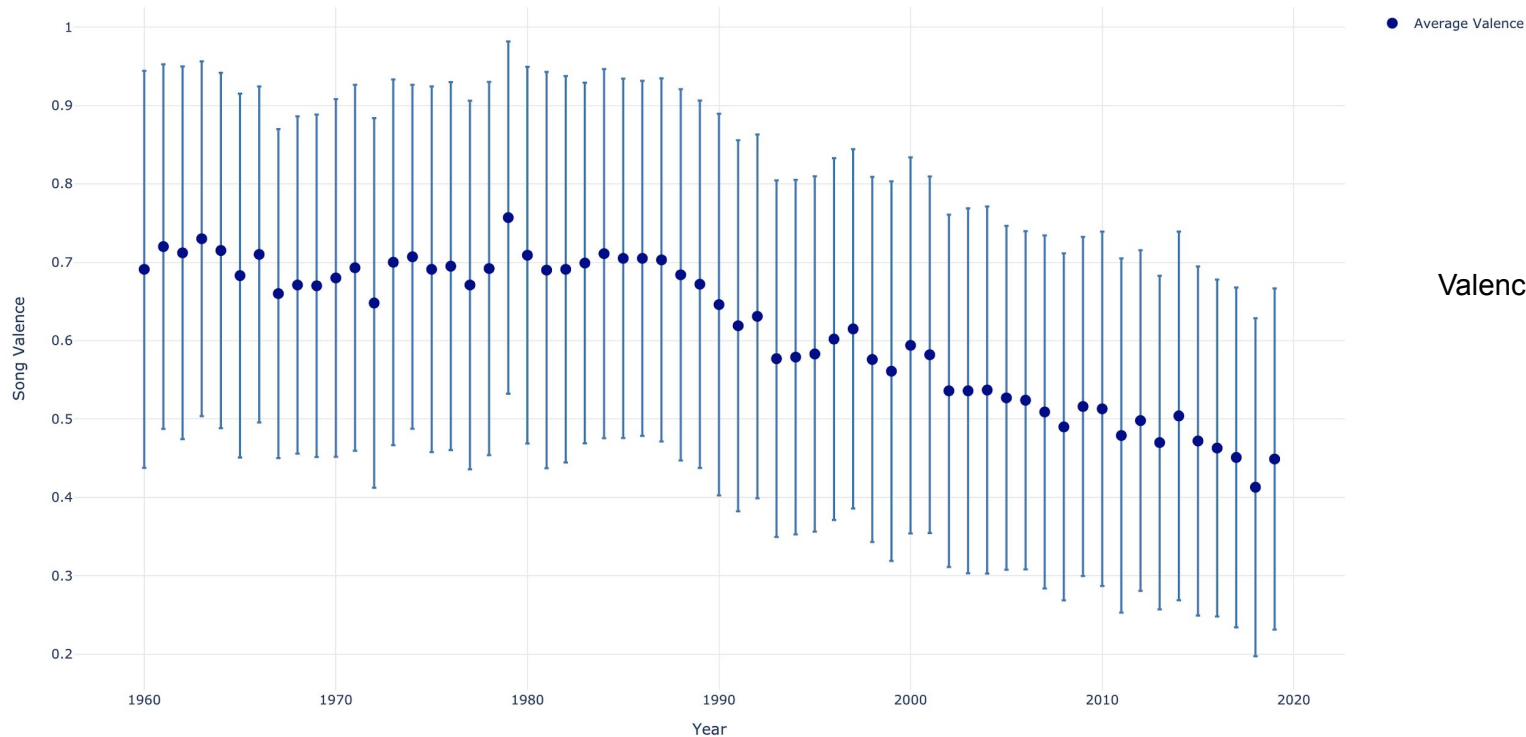
Analysis:

- So, genre variety is decreasing.
- How about the sentiment analysis of the songs?

Sentiment analysis



Valence analysis



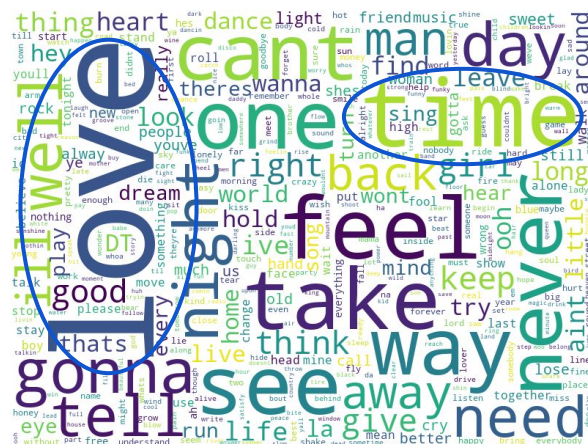
Valence describes mood

WordCloud for decades

1960s



1970s



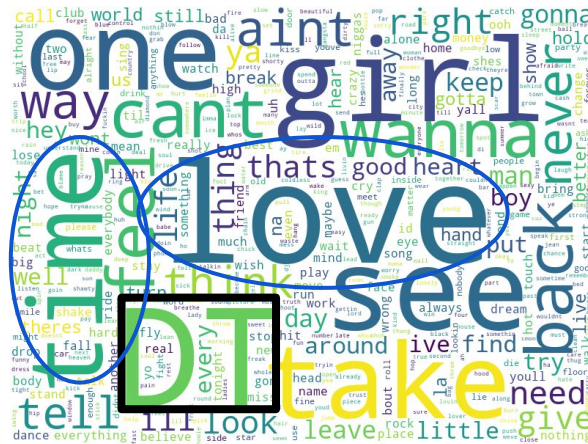
1980s



1990s



2000s



2010s



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Conclusion

- I. Rap is rising and changing the music industry.
- II. Genre variety is decreasing
- III. Words and emotions are going bad.

— Thank you —