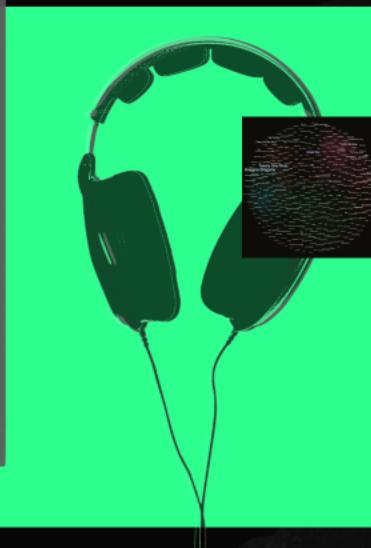
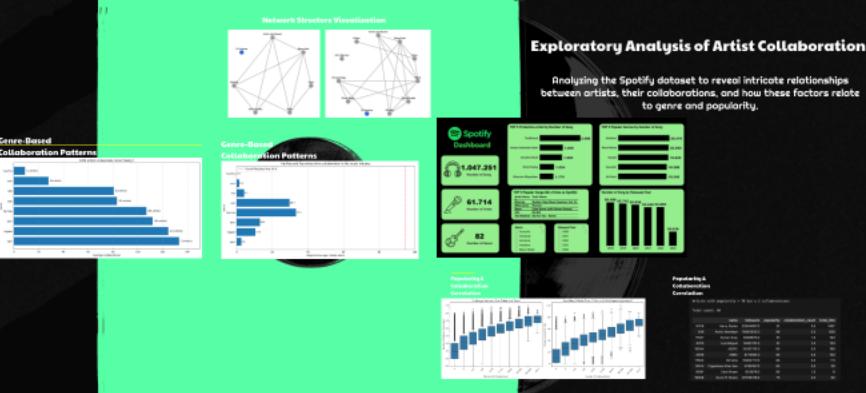


Spotify Artists Collaboration

Exploring Artist Interconnections and Popularity Trends

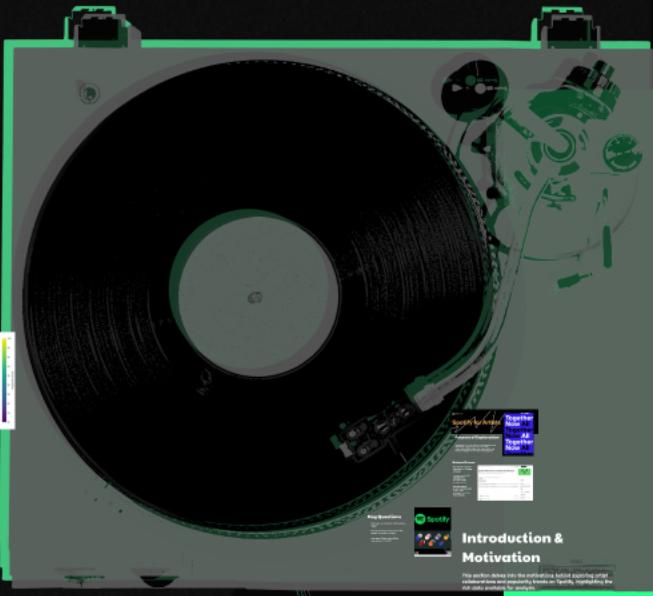


Spotify Artists Collaboration

Exploring Artist Interconnections and Popularity Trends



Analyzing the Spotify dataset to reveal intricate relationships between artists, their collaborations, and how these factors relate to genre and popularity.



Introduction & Motivation



Data Description

This section outlines the structure and significance of the nodes and edge datasets, critical for understanding the artist collaboration network on Spotify.

Key Takeaways

What have we learned about the complex landscape of collaborations in the music industry?



Spotify Artists Collaboration

**Exploring Artist Interconnections
and Popularity Trends**

Introduction & Motivation

This section delves into the motivations behind exploring artist collaborations and popularity trends on Spotify, highlighting the rich data available for analysis.

Dataset Source

The dataset originates from Spotify API, found on Kaggle

It comprises of artist metadata and connection data between artists.

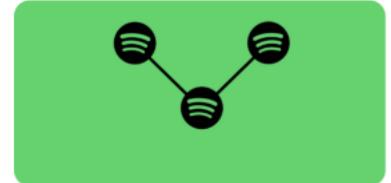
This rich dataset serves to illuminate the collaborative landscape within the music industry.

JULIAN FREYBERG · UPDATED 2 YEARS AGO

▲ 48 New Notebook Download :

Spotify Artist Feature Collaboration Network

A network-dataset covering features between leading global artists on spotify.



Data Card Code (12) Discussion (0) Suggestions (0)

About Dataset

This dataset contains artist data for ~20k artists whose songs made it to the Spotify weekly charts and ~136k additional artists who had at least one feature with at least one of the chart artists.

Further, information on the occurrence of features between all of these artists is included, allowing to generate a network with 135k+ musicians as nodes and 300k+ collaboration edges between them.

Usability ⓘ 9.71

License Attribution 4.0 International (CC ...)

Expected update frequency Never

Tags Music Social Networks

edges.csv (13.82 MB)

Detail Compact Column

2 of 2 columns ▾

Data Explorer 23.8 MB

edges.csv nodes.csv

Spotify for Artists

Purpose of Exploration

The purpose is to investigate artist collaborations and their impact on popularity metrics on Spotify. Understanding these relationships helps identify key influencers and genres within the music ecosystem.

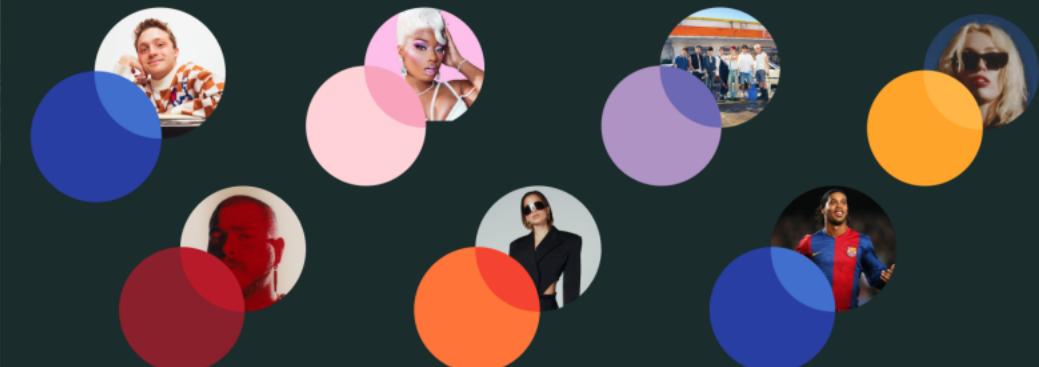
Now All
Together
Now All
Together
Now All
Together
Now All
Together
Now All
Together

Key Questions

- Which genres have high collaboration rates?
- Does popularity correlate with the number of collaborations?
- How does Global reach affect popularity of artists?

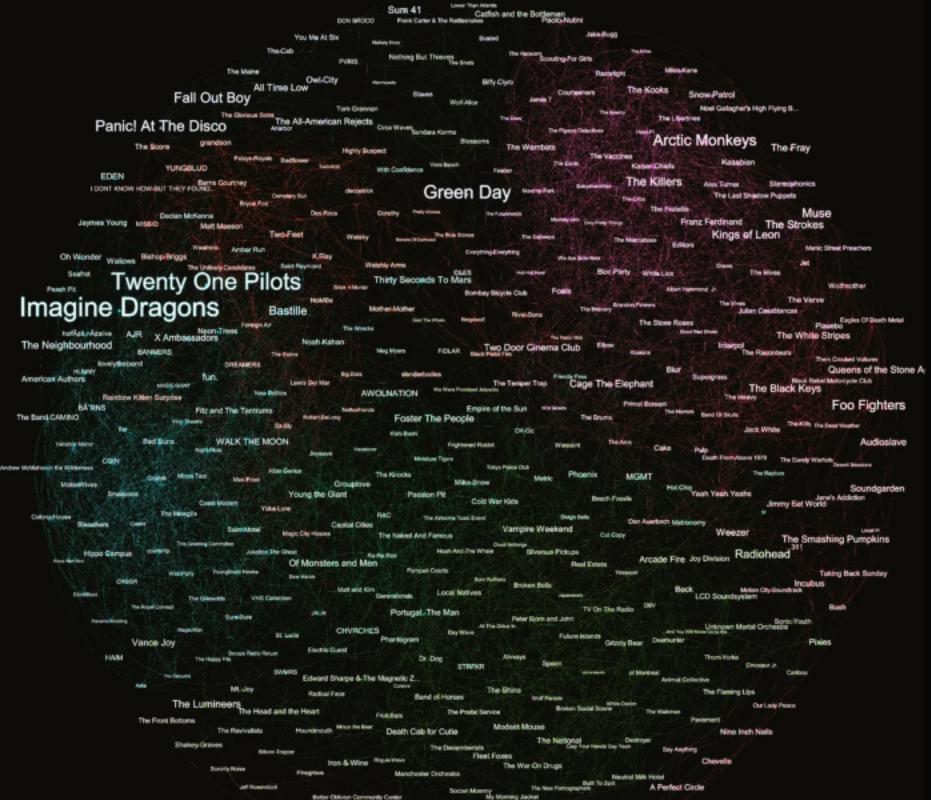


Spotify®



Data Description

This section outlines the structure and significance of the nodes and edges datasets, critical for understanding the artist collaboration network on Spotify.



Overview of nodes

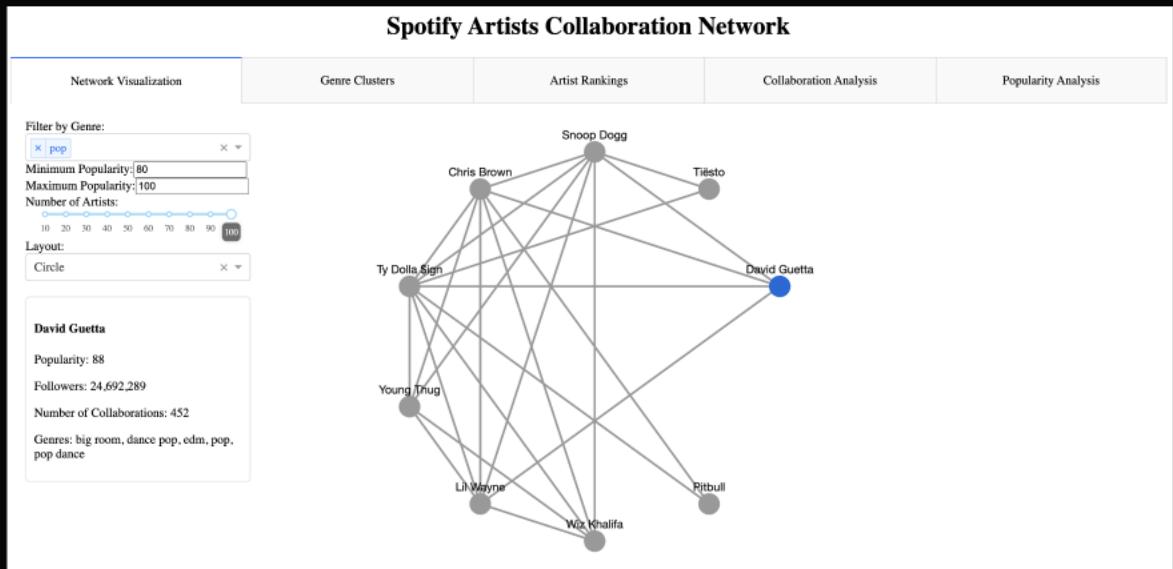
The nodes contain data about individual artists such as their

- Name
- Number of Followers
- Popularity score
- List of genre
- List of chart hits

# index	A spot... Missi... 0 (0%) 156320 (>99%)	A name Missi... 4 (<1%) D 145750 (93%)	# fol... M... 4 (<1%) 38627 (25%)	# p ↓ Mi... 0 (0%) D. 96 (<1%)	A genres Missing: 0 (0%) Distin... 19072 (12%)	A chart_hits Mis... 136781 (87%) Distinct: 5863 (4%)
	156320145750	Distinct values	Distinct values	M... Max 10... Mi... Max 1...	[:] 65% ['v-pop']: <1% ['dutch hip h...': <1% Other: 35%	5863 Distinct values
11203	4q3ewBCX7sLwd	Bad Bunny	55669387.0	100	['reggaeton', 'trap latin']	['us (76)', 'gb (1)', 'ar (5)']
18726	3TVXtAsR1Inumv	Drake	66852536.0	95	['canadian hip hop', 'ca']	['us (190)', 'gb (163)', 'ar']
4646	06HL4z0CvFAxyc	Taylor Swift	58554324.0	94	['pop']	['us (136)', 'gb (115)', 'ar']
13879	1Xyo4u8uXC1Zm	The Weeknd	49387909.0	93	['canadian contemporary']	['us (81)', 'gb (74)', 'ar']
19533	5K4W6rqBFWDn	Kanye West	18170307.0	91	['chicago rap', 'rap']	['us (89)', 'gb (84)', 'ar']
16116	6KImCVD70vtloJ	Harry Styles	23284667.0	91	['pop']	['us (35)', 'gb (35)', 'ar']
17550	3Nrfpe0tUJi4K4D	BTS	54532917.0	91	['k-pop', 'k-pop boy gr']	['us (55)', 'gb (32)', 'ar']
6237	1uNFoZAHBGtlIn	Justin Bieber	65590075.0	90	['canadian pop', 'pop']	['us (58)', 'gb (51)', 'ar']
14198	6eUKZXaKkcvIHO	Ed Sheeran	102156853.0	90	['pop', 'uk pop']	['us (52)', 'gb (83)', 'ar']
5486	7dGJo4pcD2V6o	Eminem	59184634.0	90	['detroit hip hop', 'hip']	['us (78)', 'gb (72)', 'ar']
15995	246dkjvS1zLTtiyk	Post Malone	38085069.0	89	['dfw rap', 'melodic rap']	['us (65)', 'gb (57)', 'ar']
16350	1mcTU81TzQhprl	Rauw Alejandro	13643957.0	89	['puerto rican pop', 'tra']	['us (3)', 'ar (29)', 'at (1)']

Overview of edges

The edges csv outlines the collaborations between two spotify artists. Each column represents the spotify id of an artist



# index	id_0	...	id_1
	Missing: 0 (0%)	Distinct: 91097 (30%)	Missing: 0 (0%)
	91097	Distinct values	90222
			Distinct values
0	76M2Ekj8bG8W7X2nbx2CpF		7sfI4Xt5KmfyDs2T3SVSMK
1	0hk4xVujcyOr6USD95wcWb		7Do8se3ZoaVqUt3woqqSrD
2	38jpuy3yt3QlxQ8Fn1HTeJ		4csQIMQm6vI2A2SCVDuM2z
3	6PvcxssrQ0QaJVaBWHD07I		6UCQYrcJ6wab6gnQ89OJFh
4	2R1QrQqWuw3ljoP5dXRFjt		4mk1ScvOUkuQzzCZpT6bc0
5	0k70gnDBLPirCltbTzoxuM		5FK3qokBQYxr7ZLkr8GVFn
6	1bAftSH8umNcGZ0uyV7LMg		1vqR17lv8VFdzure1TAXEq
7	21ey6s5hEcTcVKDrF5MWby		7uMh23xWiuR7zsNkuNcm2G
8	1mYsTxnqsietFxj1OgoGbG		7snhzmuew8iLEDxMlhOU1P
9	3GBBxBdoolb0B5YizZq9bF		3yayE6rrrovGcNkMManKwVf
10	2I9SLkIAOG0vdMiUUMNxRI		4lprNIQiJZUUJhDI0fL2SL
11	1ildweeZKCIYQ5xepyalYz		2UkgjMChHf3vFEwOzLE5o9
12	4Cmjffz7uLaESQIWls9G5		6XvZkxVvGXWhIDFTR6Q4sj
13	2aaGbpl5Y2ykZsNFZM6ofw		5Jv214x15UoVfHMo4LipLU
14	0OZ5IlVdYIK1Et3nW6aTO5		6eUofOqC7jS5aPeTa1a71y
15	0zkollaqJT7WP0rly4rOMk		2hPCF7VDHhihvNdobsIOhw

Spotify Artists Collaboration Network

Network Visualization

Genre Clusters

Artist Rankings

Collaboration Analysis

Popularity Analysis

Filter by Genre:

Minimum Popularity: 80

Maximum Popularity: 100

Number of Artists:

10 20 30 40 50 60 70 80 90 100

Layout:

Circle

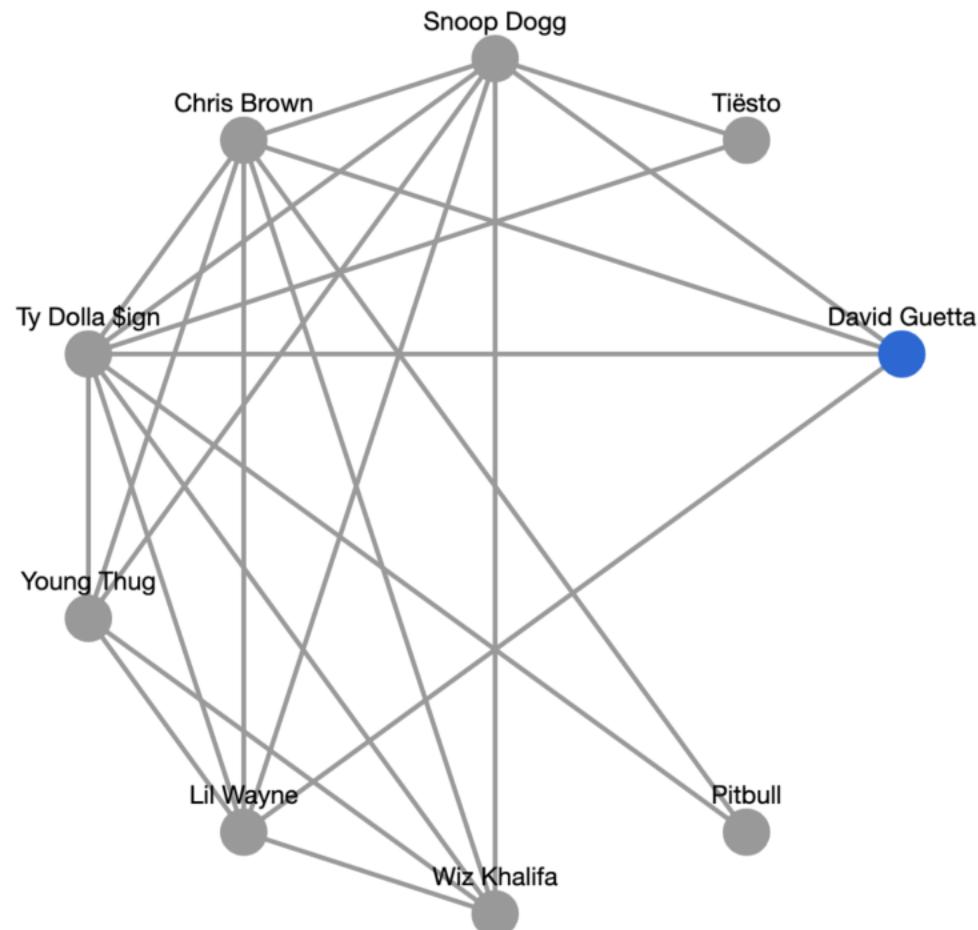
David Guetta

Popularity: 88

Followers: 24,692,289

Number of Collaborations: 452

Genres: big room, dance pop, edm, pop, pop dance



Exploratory Analysis of Artist Collaboration

Analyzing the Spotify dataset to reveal intricate relationships between artists, their collaborations, and how these factors relate to genre and popularity.

Spotify Dashboard



TOP 5 Productive Artist by Number of Song

Traditional	3.486
Johann Sebastian Bach	1.969
Grateful Dead	1.909
Elvis Presley	1.224
Giacomo Meyerbeer	1.174

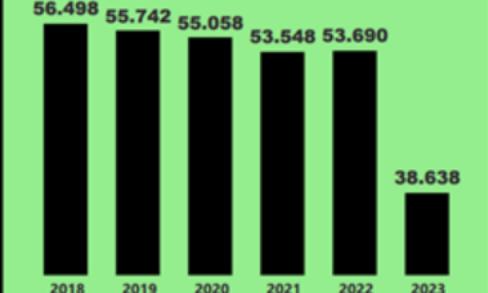
TOP 5 Popular Genres by Number of Song

Ambient	20.416
Black-Metal	20.095
Gospel	19.925
Acoustic	19.288
Alt-Rock	19.248

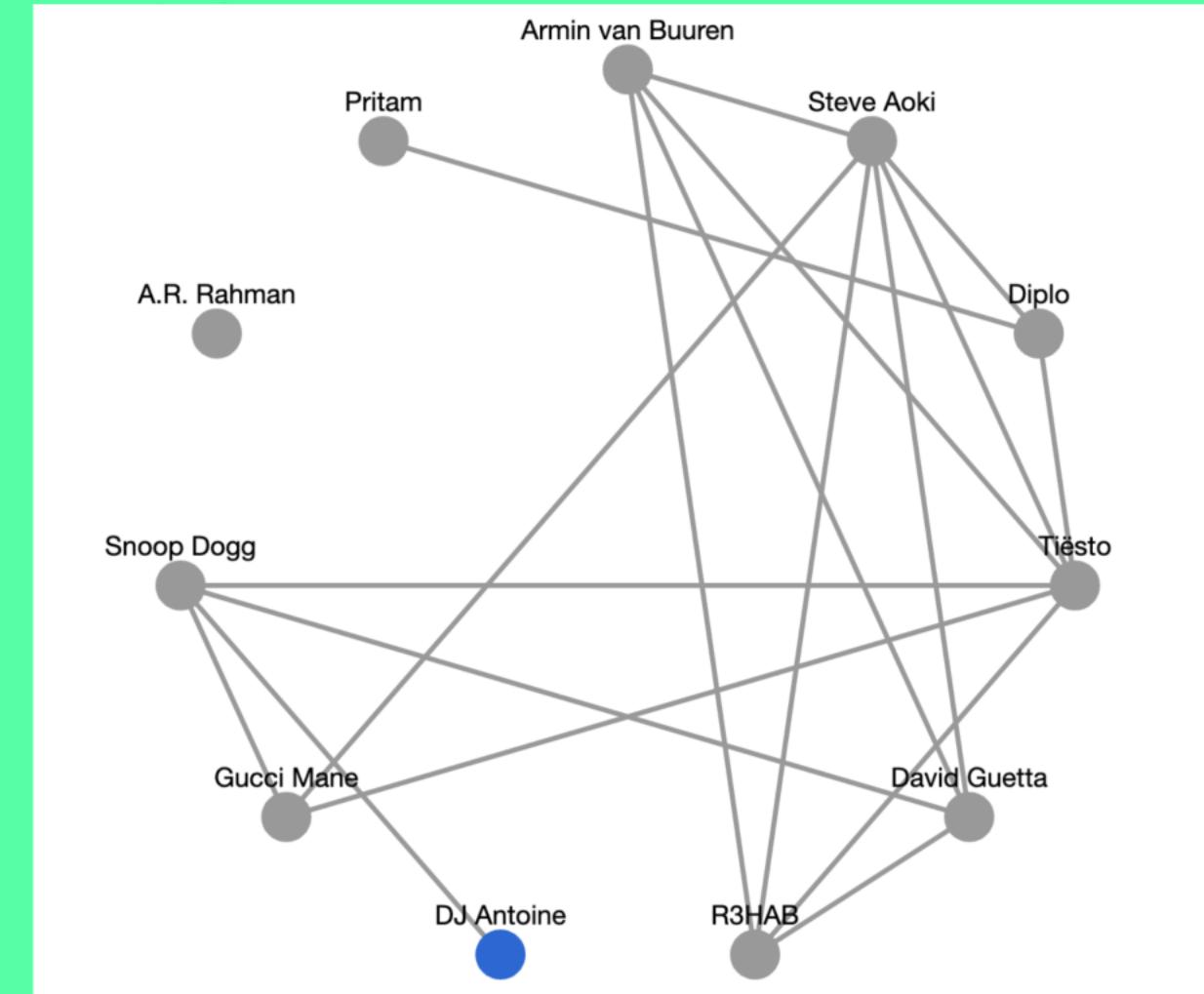
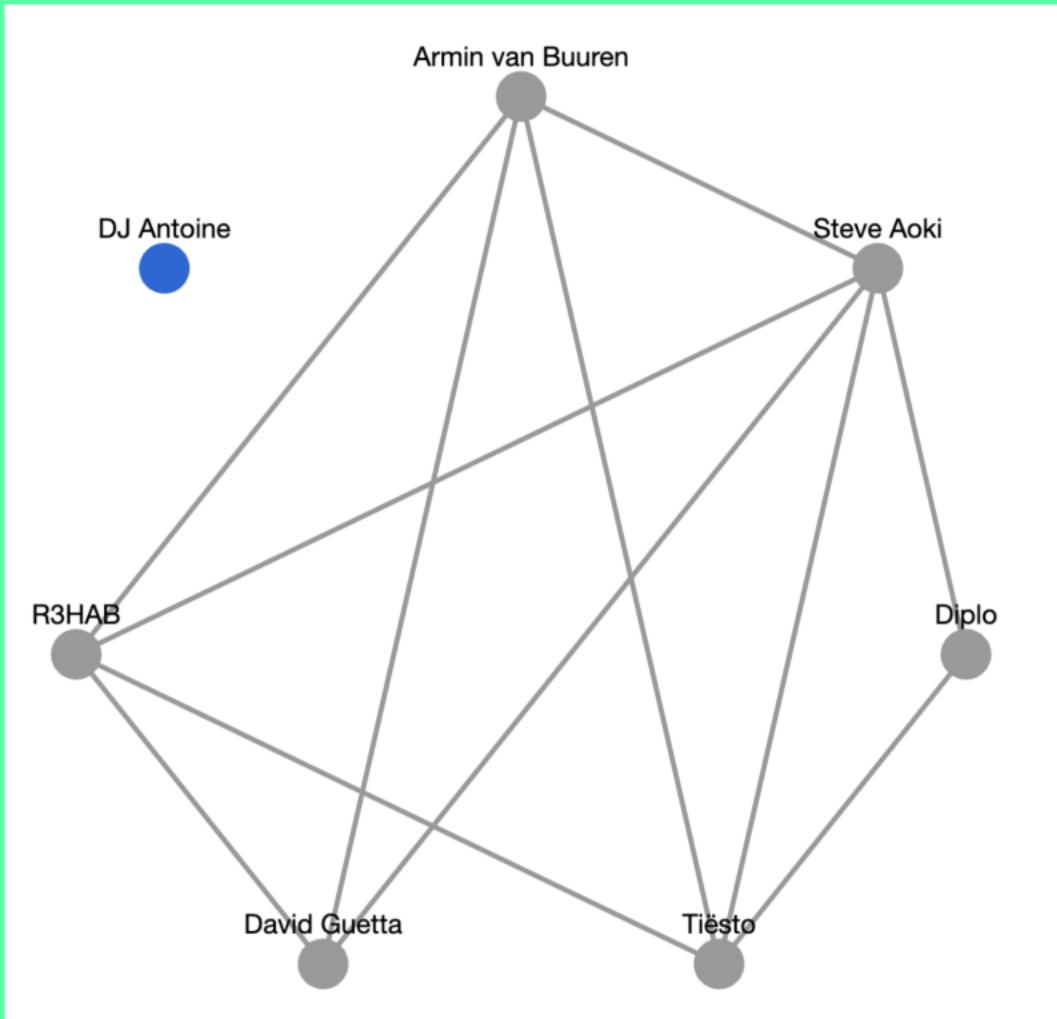
TOP 5 Popular Songs (All of time on Spotify)

Artist Name	Track Name
Bizarrap	Shakira: Bzrp Music Sessions, Vol. 53
Miley Cyrus	Flowers
Rema	Calm Down (with Selena Gomez)
SZA	Kill Bill
The Weeknd	Die For You - Remix

Number of Song by Released Year



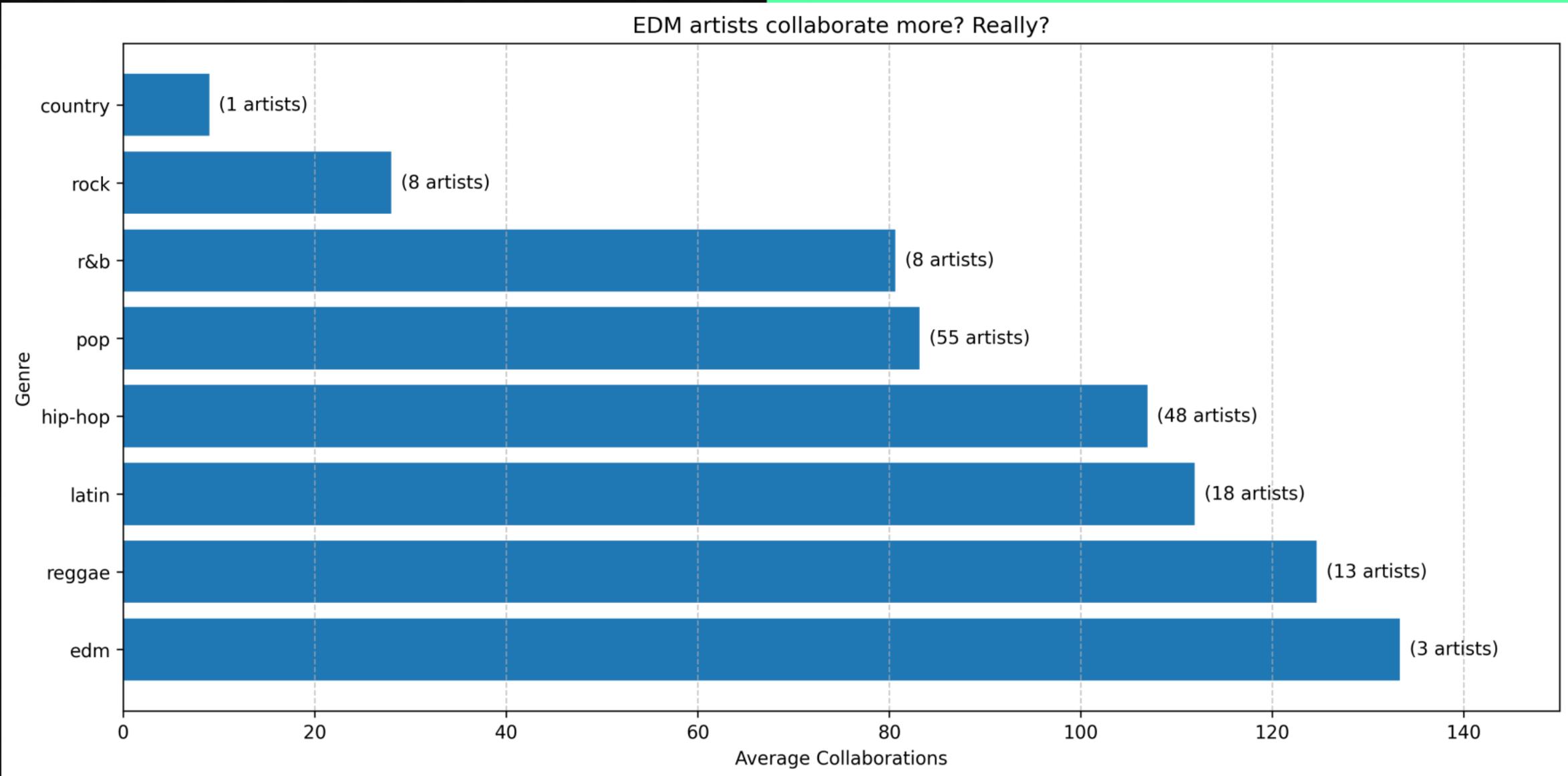
Network Structure Visualization



Genre-Based

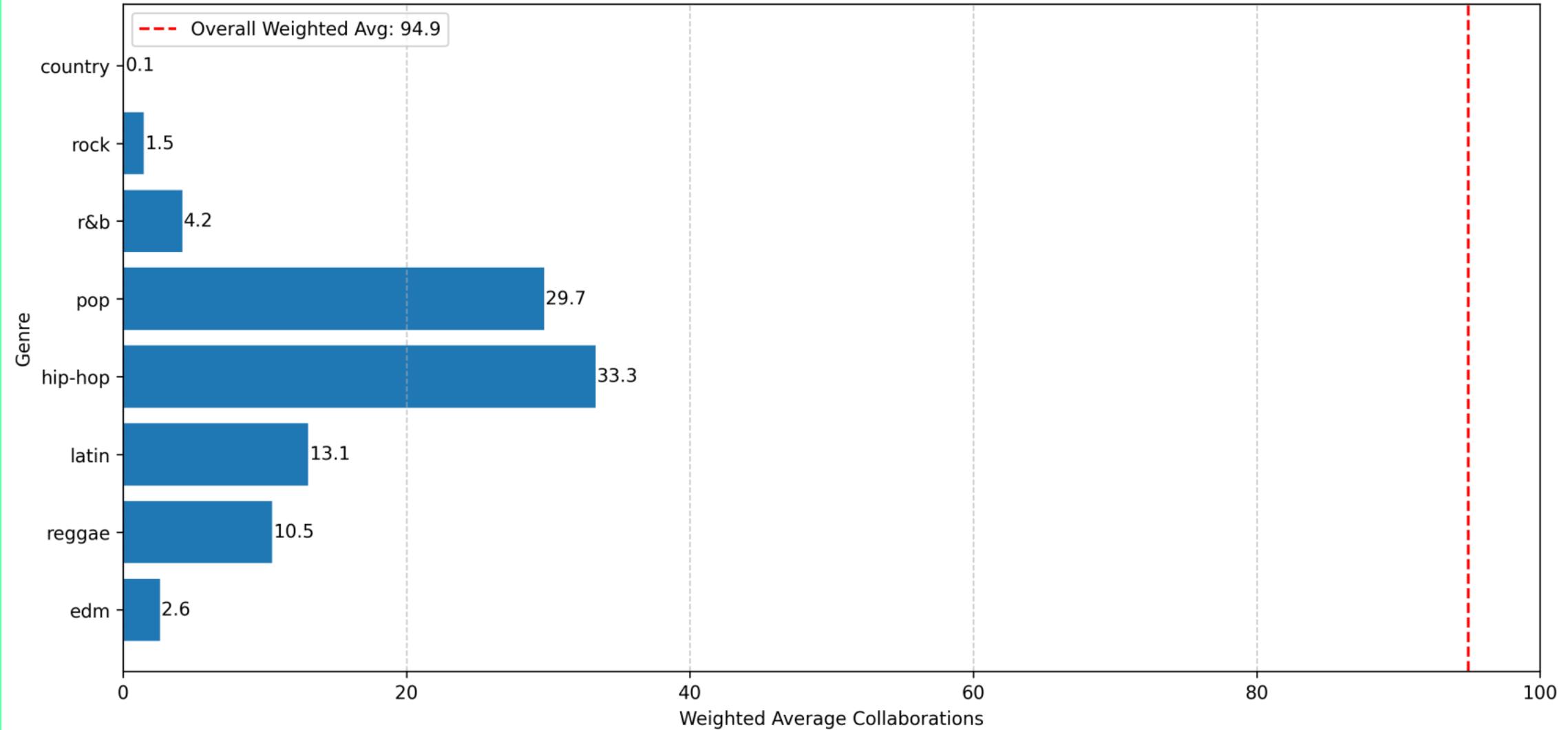
Collaboration Patterns

EDM artists collaborate more? Really?



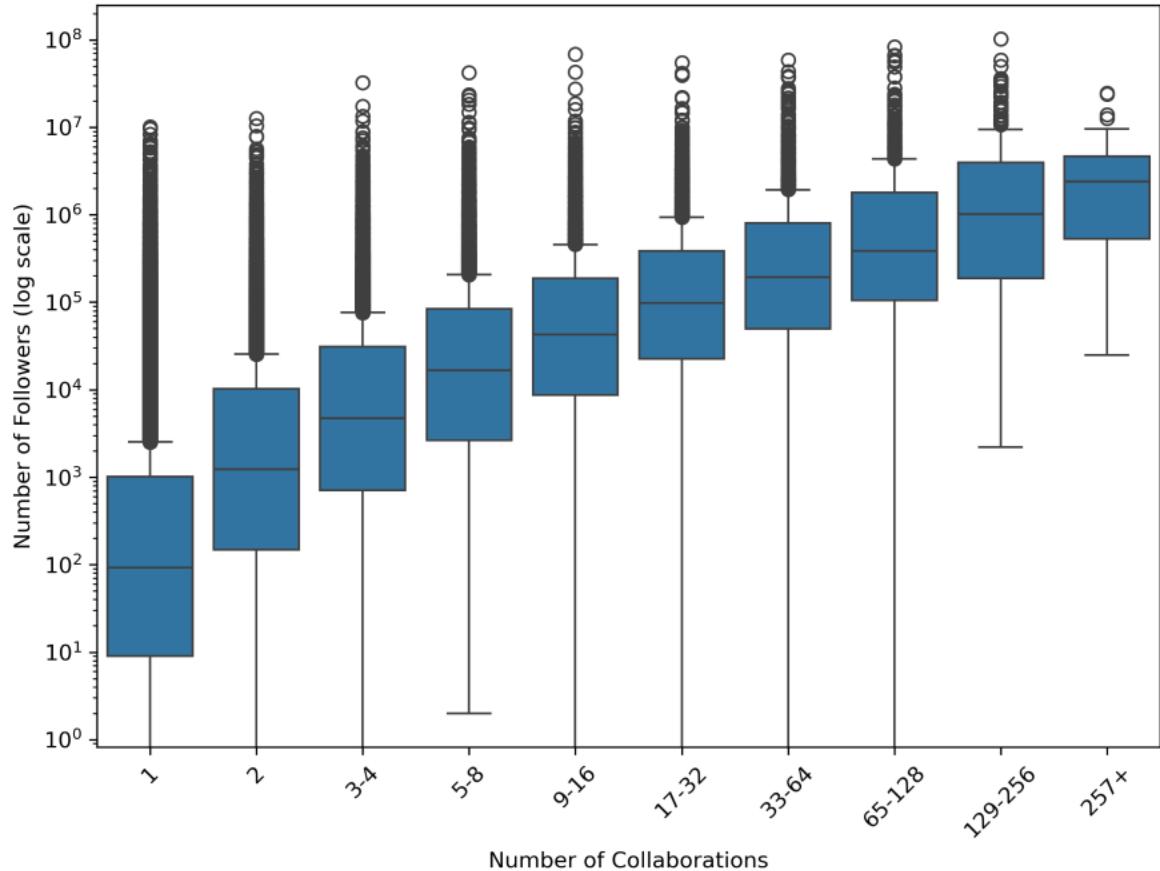
Genre-Based Collaboration Patterns

Hip Hop and Pop artists drive collaboration in the music industry

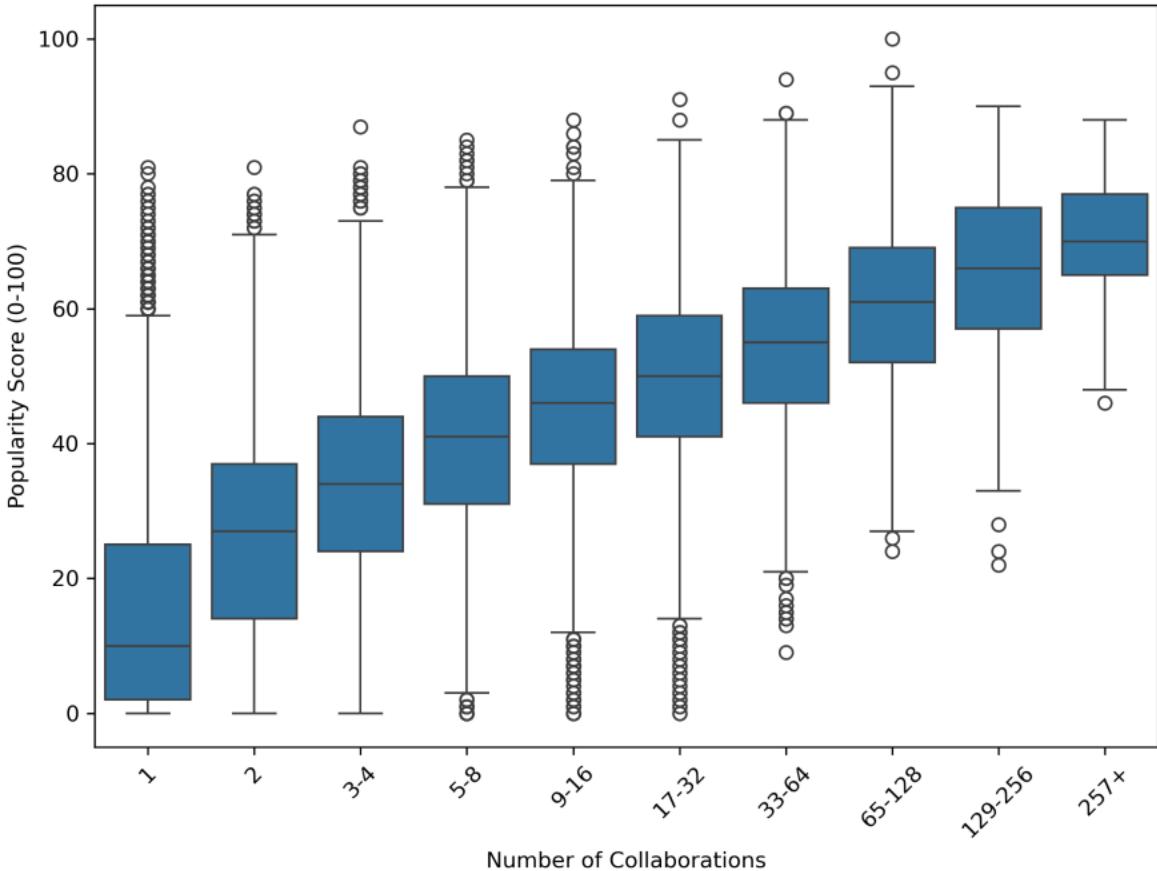


Popularity & Collaboration Correlation

Building a Fanbase, One Collab at a Time!



How Many Collabs Does It Take to Hit the Popularity Jackpot?



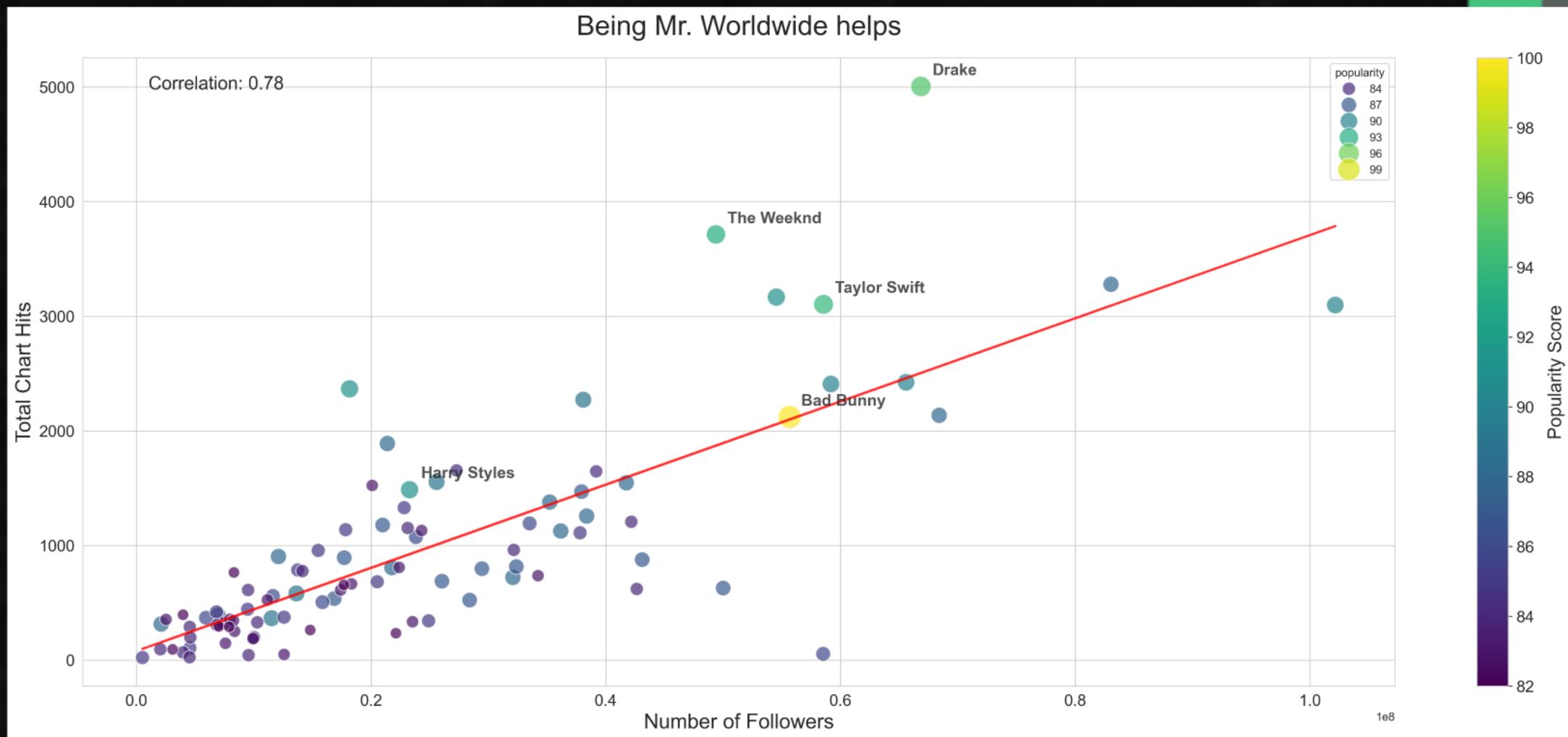
Popularity & Collaboration Correlation

Artists with popularity > 70 but ≤ 2 collaborations:

Total count: 68

	name	followers	popularity	collaboration_count	total_hits
16116	Harry Styles	23284667.0	91	0.0	1487
558	Arctic Monkeys	15862633.0	86	0.0	506
11527	Conan Gray	6498675.0	81	1.0	143
4370	Luis Miguel	10461701.0	81	2.0	120
16284	AC/DC	24321731.0	80	0.0	168
3066	ABBA	8715881.0	80	0.0	143
17603	Nirvana	15903777.0	80	0.0	111
14514	Cigarettes After Sex	4798187.0	80	0.0	36
15591	Zach Bryan	633879.0	80	1.0	8
18008	Guns N' Roses	25796418.0	79	0.0	92

Global Hits & Popularity



Key Takeaways

**What Have we learned about the complex landscape of
Collaborations in the music industry**

Collaboration Hubs

Genres such as pop and hip-hop serve as major collaboration hubs on Spotify, with artists frequently working together. Key influencers within these genres facilitate a network of relationships that enhance visibility and reach in the music industry.



Trends in Popularity and Collaboration



A positive correlation exists between artist popularity and the number of collaborations, although outliers indicate exceptions.

Some artists maintain high popularity with fewer collaborations, attributed to unique marketing strategies or genre positioning.

Global Patterns from Chart Hits

Chart and Hits analysis reveals distinct global patterns.

Spotify is a Global App with a reach to billions of people and over 70 Nations.

Reach the world with your music.



Summary of Insights

The analysis underscores that collaboration is not only vital for artist networking but also significantly impacts overall popularity.

Emerging artists can leverage collaboration hubs to build their profiles and reach wider audiences.

