



Analysis on the Billboard Chart The Hot 100:

Paul Cho

billboard
THE HOT 100
MOST POPULAR SONGS



Billboard Hot 100:

The music industry standard record chart in the United States for songs.

Chart rankings are based on sales (physical & digital), radio play, and online streaming in US

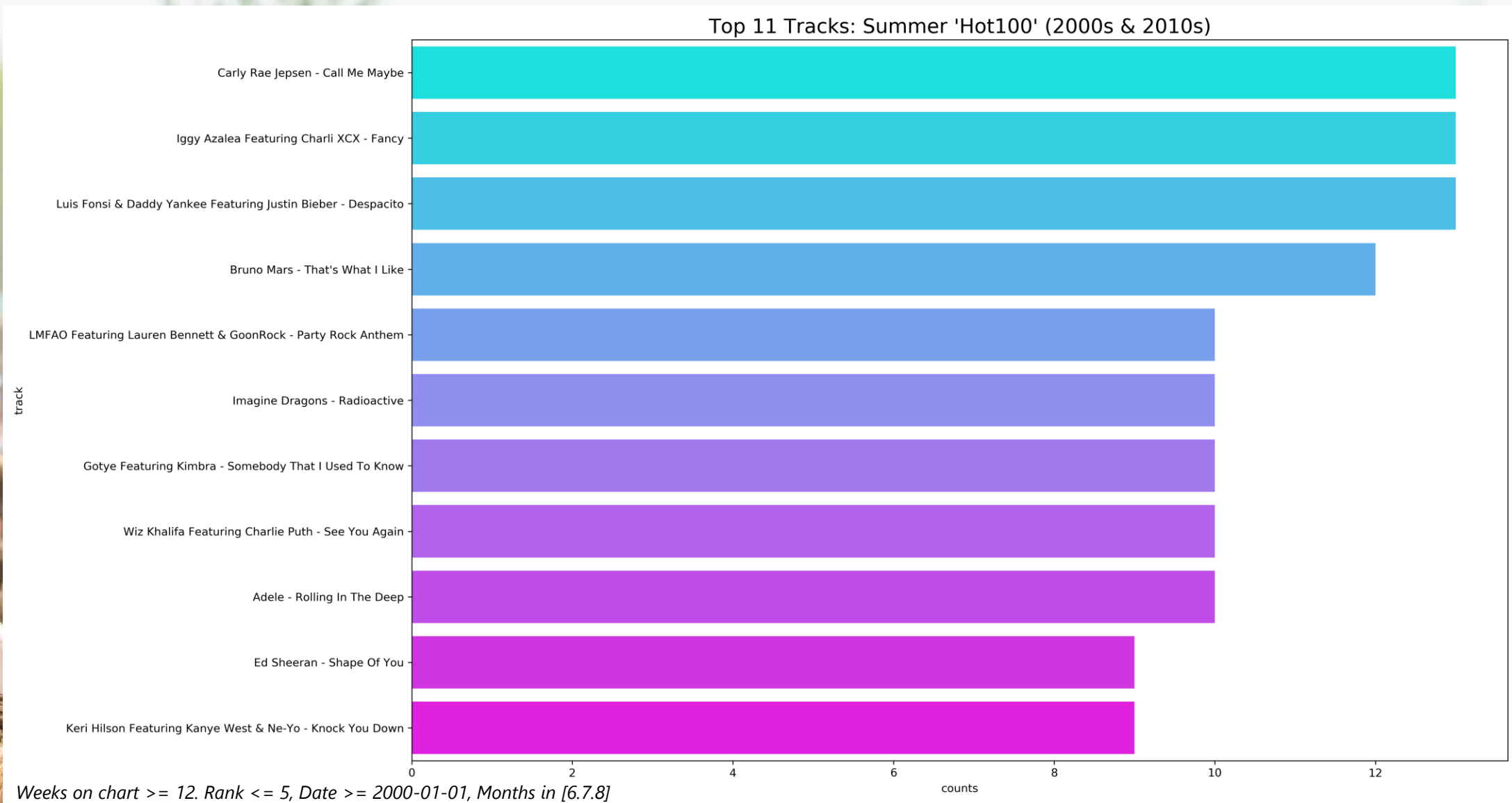
- ~ 300,000 tracks cumulated since August 16th of 1958
- ~ 28,000 unique tracks removing the duplicates

Obtain features such as:

- -1W Rank
- CW Rank
- Peak Rank
- Date
- (Season, Month, Year, WoW Delta etc.)

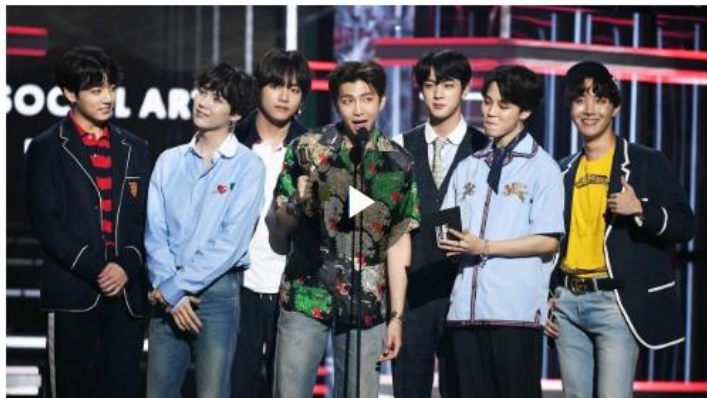
```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 299099 entries, 0 to 299098
Data columns (total 15 columns):
artist          299099 non-null object
date_           299099 non-null object
last_week_rank  286386 non-null float64
peak_rank       288603 non-null float64
rank            299099 non-null int64
title           299099 non-null object
weeks_on_chart  288603 non-null float64
artist1         299099 non-null object
featuring       299099 non-null object
rank_delta      286386 non-null float64
year            299099 non-null int64
month           299099 non-null int64
week            299099 non-null int64
unique          299099 non-null object
season          299099 non-null object
dtypes: float64(4), int64(4), object(7)
memory usage: 34.2+ MB
```


What are some noticeable Summer Songs for past 19 years?



BBMA

Here Are All the Winners From the 2018 Billboard Music Awards



5/20/2018 by [Billboard Staff](#)



The 2018 Billboard Music Awards are here. With Kelly Clarkson hosting, the 2018 BBMAs hit the MGM Grand Las Vegas on Sunday (May 20) and saw everyone from Taylor Swift to Shawn Mendes to BTS to BBMA Icon Award winner Janet Jackson in attendance.

Clarkson cold-opened the show with a call to action following the recent school shooting in Santa Fe, Texas, and then performed a stunning medley of other artists' songs, including Kendrick Lamar, Ed Sheeran, Swift, Mendes and more.

Check out the full list of winners, updating live, below:

Top Artist:

Drake

Kendrick Lamar

Bruno Mars

Ed Sheeran -- WINNER

Taylor Swift

Lets do a simple validation:

Does Billboard look into data for choosing Billboard's Top Artist Winner?

Ed Sheeran



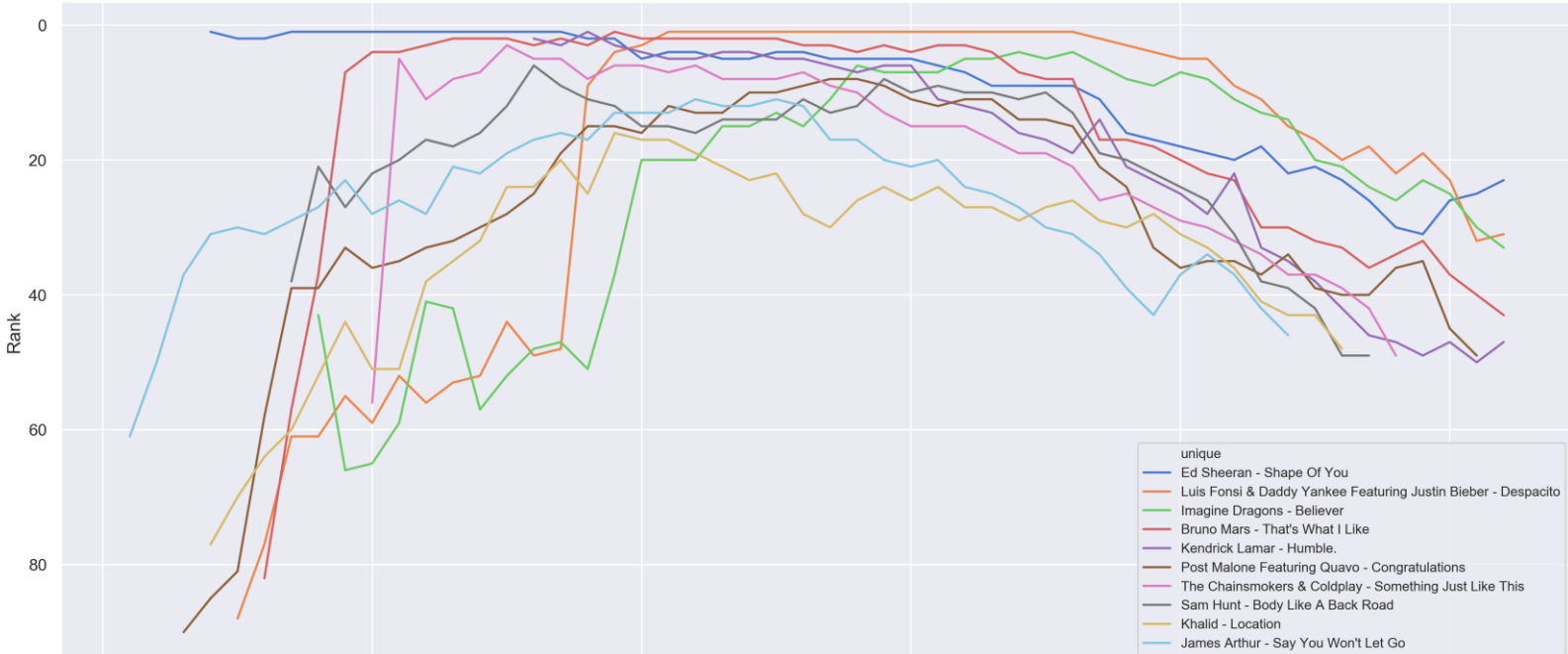
Unlike other awards, such as the Grammy Award, the Billboard Music Awards finalists are based on album and digital songs sales, streaming, radio airplay, touring, and social engagement data provided by Nielson. The 2018 awards are based on the reporting period of April 8, 2017 through March 31, 2018.

April 8, 2017 -
March 31, 2018

artist1	title	rank		peak_rank		weeks_on_chart
		count	median	mean	min	max
Bruno Mars	24K Magic	18	38.50	37.39	4.00	41.00
	Finesse	12	3.00	6.08	3.00	12.00
	That's What I Like	42	7.50	15.38	1.00	52.00
	Versace On The Floor	12	54.50	56.67	33.00	14.00
DJ Khaled	Don't Quit	1	68.00	68.00	nan	nan
	I'm The One	22	3.50	11.23	1.00	22.00
	On Everything	1	88.00	88.00	nan	nan
	Shining	9	64.00	71.78	57.00	14.00
	To The Max	4	63.00	64.25	53.00	4.00
	Top Off	3	49.00	44.33	22.00	3.00
	Wild Thoughts	21	4.00	12.81	2.00	21.00
Ed Sheeran	Castle On The Hill	23	33.00	38.39	6.00	33.00
	Galway Girl	3	93.00	92.00	53.00	5.00
	Perfect	27	3.00	14.30	1.00	30.00
	Shape Of You	48	12.00	13.42	1.00	59.00
	Despacito	42	4.50	13.10	1.00	52.00
Luis Fonsi	Echame La Culpa	17	75.00	73.76	47.00	18.00
Post Malone	Candy Paint	19	78.00	73.16	50.00	20.00
	Congratulations	38	17.50	22.82	8.00	50.00
	Go Flex	10	93.00	90.70	76.00	11.00
	I Fall Apart	25	22.00	24.80	16.00	26.00
	Psycho	4	4.50	4.00	2.00	4.00
	Rockstar	26	2.00	4.04	1.00	27.00

rank<=50: appearances in 2017

Top 10 Tracks: Highly Ranked + Appearances in 'Hot100' (2017)



rank<=50: appearances in 2018

Top 10 Tracks: Highly Ranked + Appearances in 'Hot100' (2018)



Spotify Web API

Based on simple REST principles, the Spotify Web API endpoints return JSON metadata. API provides audio features for every songs in the library

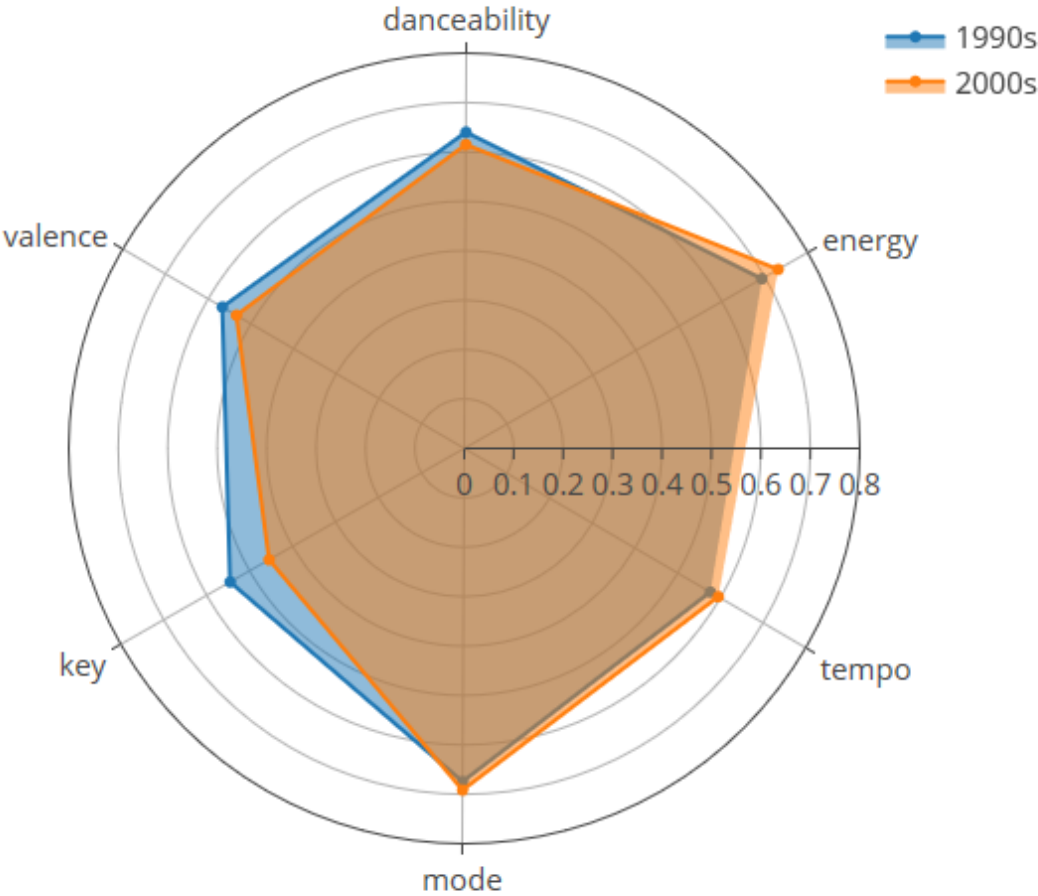
- **Key**
the estimated overall key of the track; e.g. 0 = C, 1 = C#/Db, 2 = D...etc
- **Mode**
the modality (major or minor) of a track. Major = 1, Minor = 0
- **Danceability**
how suitable a track is for dancing (0.0 - 1.0)
- **Energy**
perceptual measure of intensity and activity (0.0 -1.0)
- **Valence**
musical positiveness conveyed by a track (0.0 -1.0)
- **Tempo**
the overall estimated tempo of a track in beats per minute (BPM)
-etc



**How is Billboard Hot 100
Different from:
1990s to 2000s**



Features Comparison: 1990s vs 2000s



EDIT CHART