

2023 Spotify Wrapped: Top Artists and Trends

Founded in 2006, the rise of Spotify and other digital service providers (DSPs) such as Apple Music, Deezer, and Youtube Music have fundamentally shifted the way we consume music. With relatively cheap monthly subscriptions ranging from as low as 5 dollars (for student accounts) to 12 dollars, consumers are now able to access millions of songs available on these streaming sites. Decades before, people had to purchase physical cassette tapes, CDs, and vinyls to listen to their favorite artists. During the early days of the internet most people purchased digital versions of albums or singles on iTunes or Amazon. A single album cost as much as a one month subscription today. Of course, even today many people also listen to music on the radio, but the accessibility of streaming and the user experience involved in freely exploring massive catalogs and creating playlists is what allowed streaming to completely replace other forms of consumption in the market. Spotify now claims over 30% of the music streaming market. As the dominant company, its streaming data is a good representation of general consumer tastes and trends. In this final project, I will be presenting the most popular artists and songs of 2023, as well as popular genres on the app. One thing to note is that the dataset contains data only up until September. There were some big hits missing from the last two months, some of which will be mentioned in the discussion.

Top 10 No. of Appearances in Spotify Most Streamed 1000 Songs of 2023

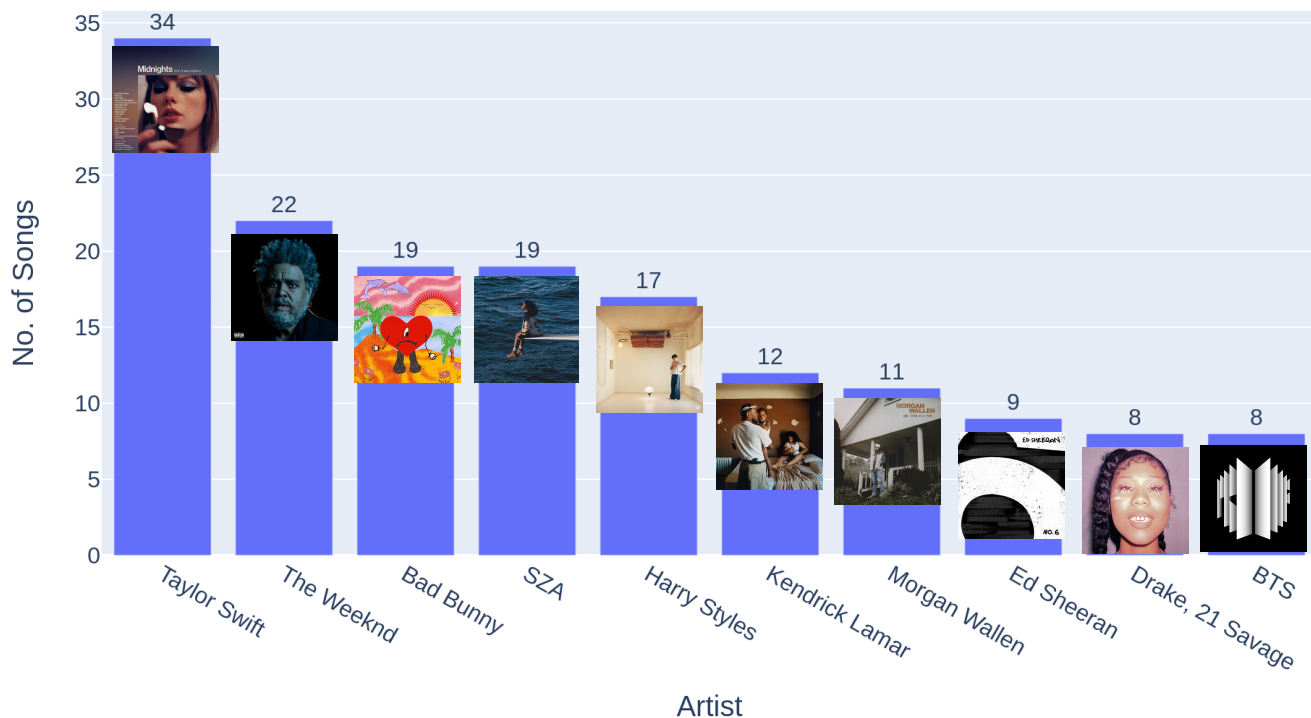


Figure 1: A bar chart of artists with the most number of songs in the top 1000 streamed as of Sep 2023. Images are covers of their last album before Sep 2023.

2023 was undeniably the year of Taylor Swift. After the release of her 10th studio album *Midnights* in October of last year, she re-recorded and released *Speak Now (Taylor's Version)* in July. Most of her 34 top-1000 songs are releases from both these albums; however, her most streamed track was actually “Cruel Summer”, a B-side from her 2019 LP *Lover*, which is also the 6th most streamed track of the entire year (Spotify). As Jack Antonoff, Swift’s main producer and collaborator, comments on *The Late Night Show with Jimmy Fallon*, “I’m loving where the music business has gone, because...the fans are God...with nothing, no gas in the fire, with no one on the business side doing anything, just kids started playing [Cruel Summer] more and more.” Swift’s era-defining *The Eras Tour* played a part in bringing “Cruel Summer” into the limelight as well, as fans marathoned through her extensive catalog in preparation for her concerts that featured songs from each of her albums.

The Weeknd, SZA, Morgan Wallen, Harry Styles, and Ed Sheeran were also on tour this year. SZA’s sophomore album *SOS*, released at the tail end of 2022, dominated the first half of 2023. Its lead single “Kill Bill”, nearing 1.5 billion streams (Spotify), was the second most streamed song of the year. Harry Styles’ *Harry’s House*, released in May of last year, continued to see success in 2023 as well. Bad Bunny (Latin Music) and BTS (K-pop) are the only predominantly non-English language artists featured on the list. On the whole, English pop still dominates.

Top 10 Artists and Their Most Streamed Songs of 2023

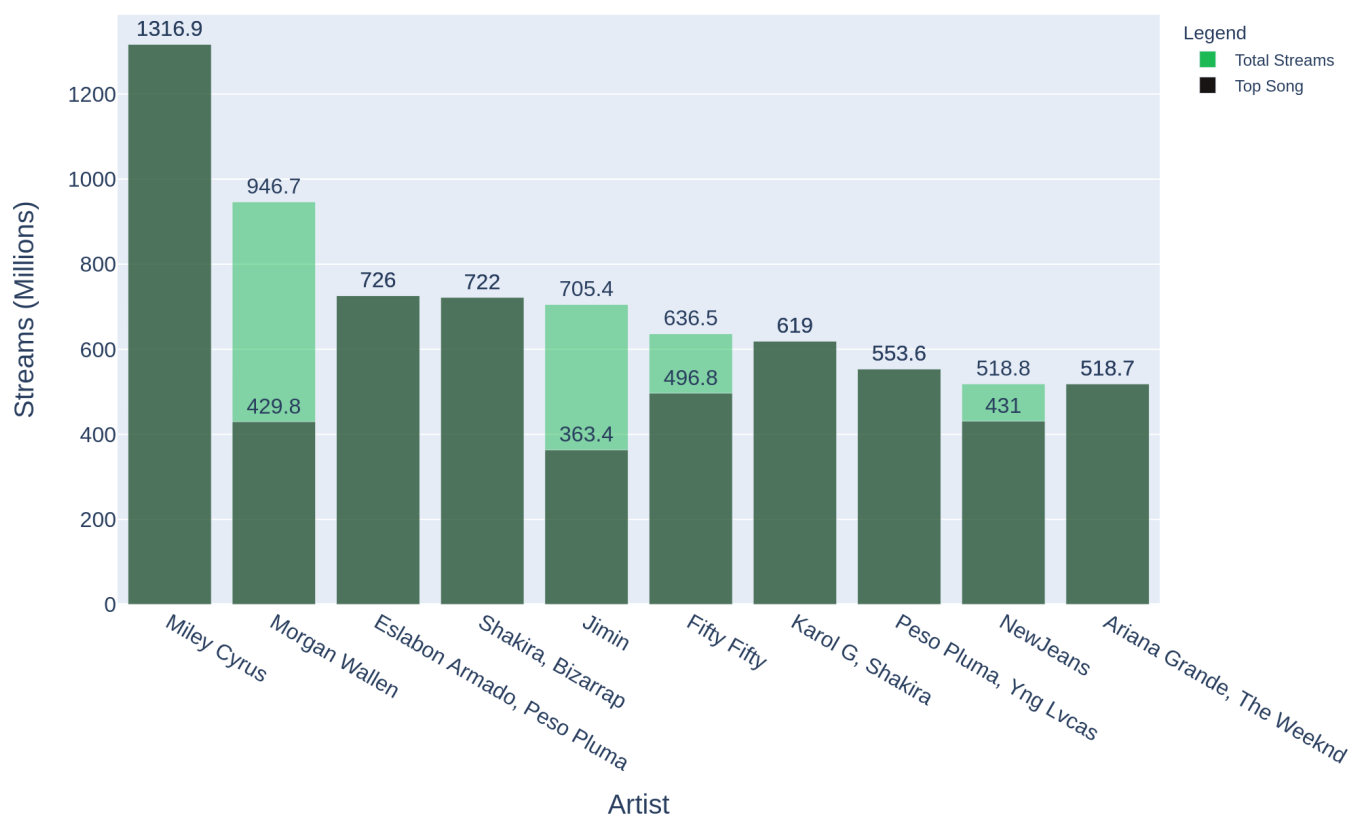
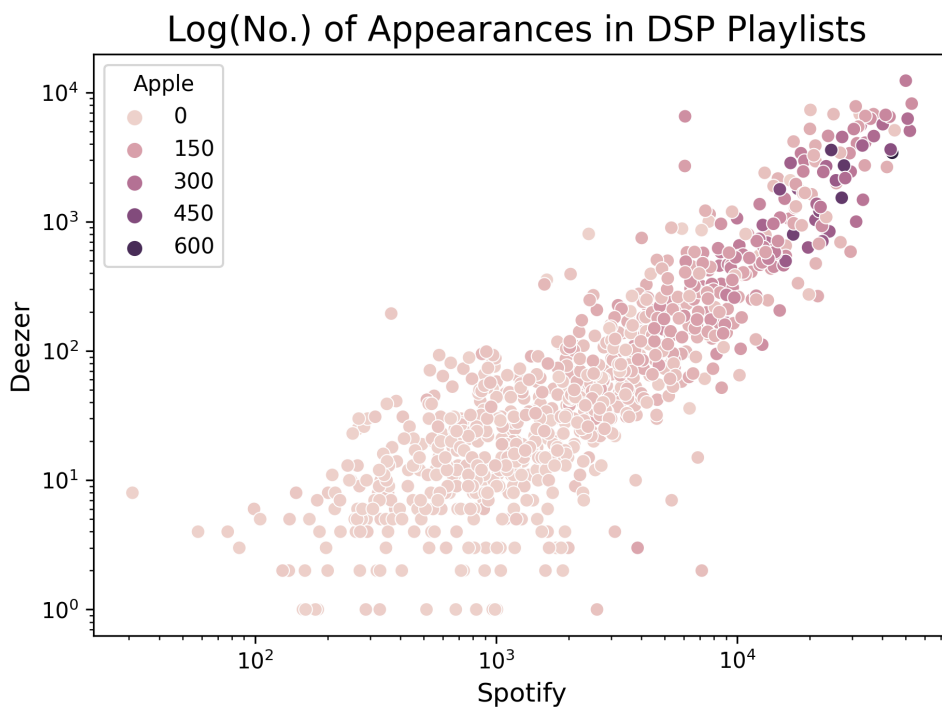


Figure 2: Overlapping bar chart of most streamed artists and their single most streamed song in 2023, only including artists' tracks released this year

A very different picture appears when we narrow the data to songs released in 2023. The black bar represents each artist's most streamed song; most artists have one extremely viral hit, which is enough to bring them into the top 10. (Track names appear in notebook when hovering over the interactive version of graph). By a significant margin, the biggest hit of the year is the pop-funk track "Flowers" by Miley Cyrus. Whether it be on radio, streaming, or social media, it was impossible to escape this song. Morgan Wallen, now one of the most successful country artists in the last decade, achieved his first number one on Billboard's Hot 100 with "Last Night", his lead single off his new album *One Thing at a Time*. Interestingly, the majority of the top 10 are non-English speaking artists. There were 4 big Latin hits, which were all collaborations between two artists. Spotify data continuously shows the significance of international markets as the industry becomes increasingly global. Three K-pop artists also appear on the list. Jimin's popularity as a member of the world's biggest boy-band BTS is unsurprising—his fellow member Jungkook also released his solo album this year. Jungkook's lead single "Seven" was the fourth most streamed song of the year, and the fastest to hit 1 billion in Spotify history. He does not appear on the list due to the later release date of the song. The blow-up of girl group Fifty-Fifty's "Cupid - Twin Version" demonstrates the power of TikTok to create viral hits, and the popularity of fellow girl group NewJeans, with their fresh sound, once again show that K-pop is a force to be reckoned with.



In this graph, I use what I believe to be an alternate representation of a song's popularity to the number of streams: the number of playlists that contain the song. The positive three way relationship between the variables is apparent. There is not a huge discrepancy between the likelihood of a track being extremely popular, which means if it is in many Spotify playlists, it will probably also feature in more Deezer and Apple playlists. There is more

Figure 3: Scatterplot of the log of the number of Spotify, Deezer, and Apple playlists containing each song

variation on the lower end of the spectrum. Another insight to be gained from the graph, though less apparent due to the x and y-axis being log values, is the fact that on average these songs are in many more Spotify playlists (more than 10,000) than Apple playlists. Discounting the fact that Apple has less premium subscribers in general, it seems that Spotify users create more playlists.

Track Name	Artist(s)	Year of Release
White Christmas	Bing Crosby, John Scott Trotter & His Orchestra, Ken Darby Singers	1942
The Christmas Song (Merry Christmas To You) - Remastered 1999	Nat King Cole	1946
Let It Snow! Let It Snow! Let It Snow!	Frank Sinatra, B. Swanson Quartet	1950
A Holly Jolly Christmas - Single Version	Burl Ives	1952
Jingle Bell Rock	Bobby Helms	1957
Jingle Bells - Remastered 1999	Frank Sinatra	1957
Rockin' Around The Christmas Tree	Brenda Lee	1958
Run Rudolph Run - Single Version	Chuck Berry	1958
It's Beginning to Look a Lot Like Christmas (with Mitchell Ayres & His Orchestra)	Perry Como, The Fontane Sisters, Mitchell Ayres & His Orchestra	1958
Deck The Hall - Remastered 1999	Nat King Cole	1959

We finish our analysis of this data set by looking at the 10 oldest songs most streamed tracks in 2023. Of course, they are all Christmas songs. Thanks to DSPs these classics are more accessible than ever.

Table 1: 10 oldest songs in the Top 1000 most streamed songs of 2023

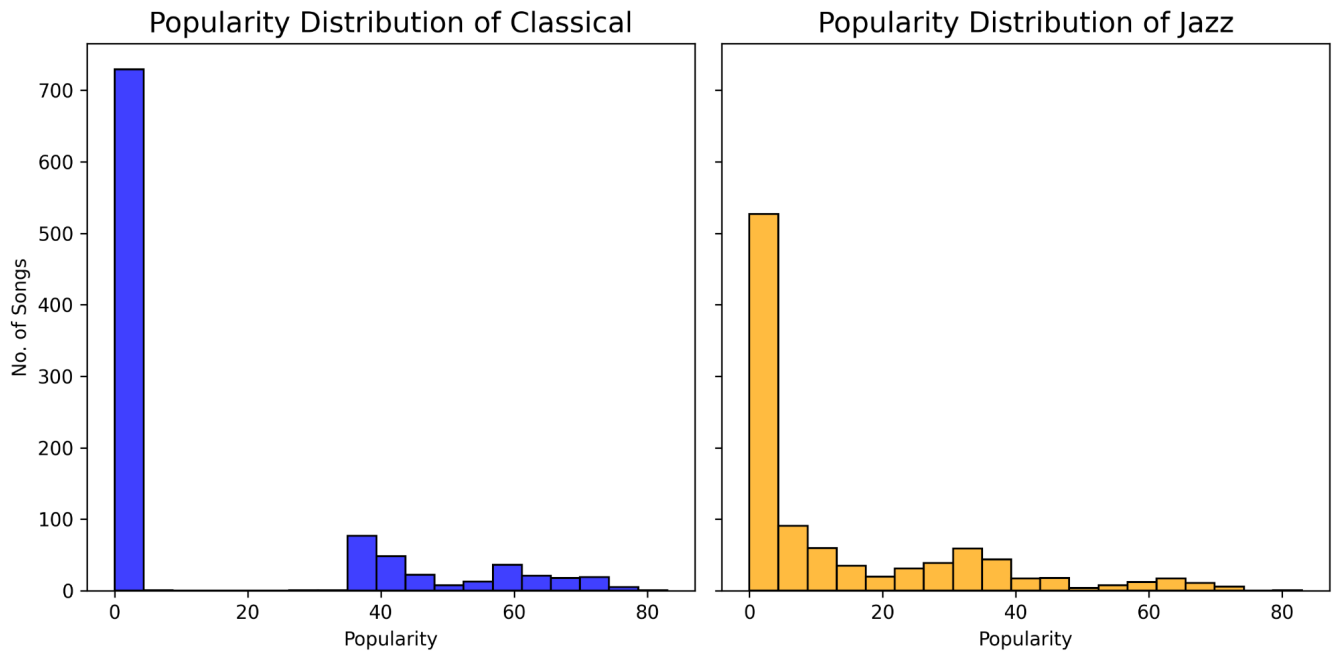


Figure 4: Comparing histograms of two of the least popular genres on Spotify

In order to analyze trends between genre and popularity, I took a second Spotify data set containing over 114 genres of 100,000 random songs each with a popularity score. Two of the least popular genres are jazz and classical. This is not unexpected as most Spotify users are younger who do not predominantly consume these types of music. On the other hand, the abundant availability of famous jazz and classical recordings reduce the barrier of entry should a young person wish to explore these genres. Spotify also has many playlists dedicated to both jazz and classical music.

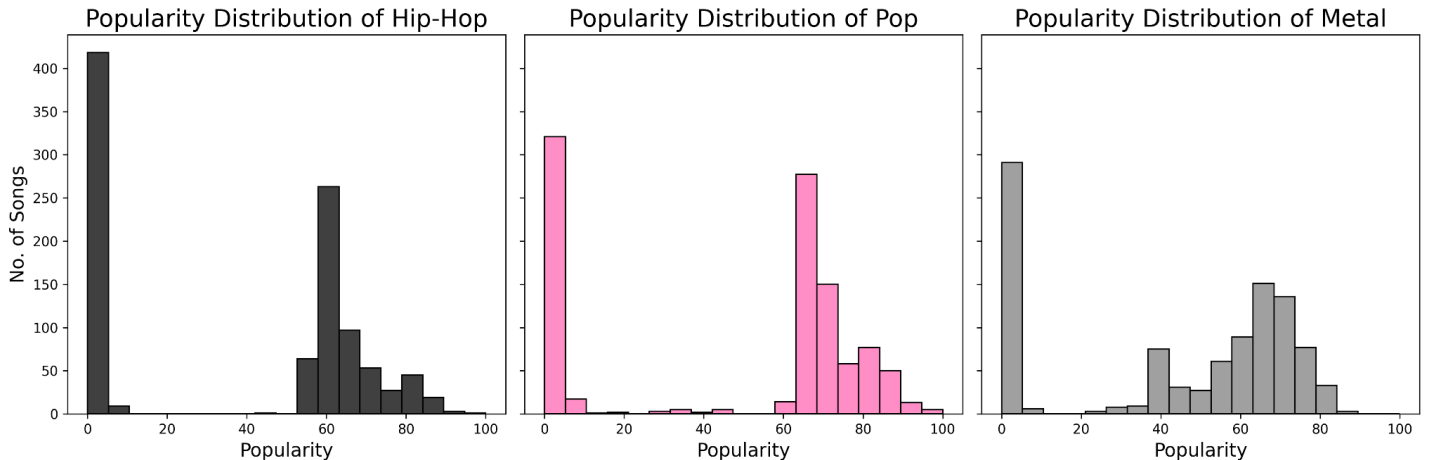


Figure 5: Comparing histograms of three popular but polarizing genres

Hip-hop, pop, and metal are three of the most popular genres on Spotify. Their median popularities were 58, 66, and 57, from left to right. However, it seems that much of the genres are rather unpopular, with each of the histograms having bimodal distributions. It is not clear why these genres in particular have such distributions. One could make the argument that plenty of mediocre hip-hop and pop are made these days, but the same could be said for other popular genres as well.

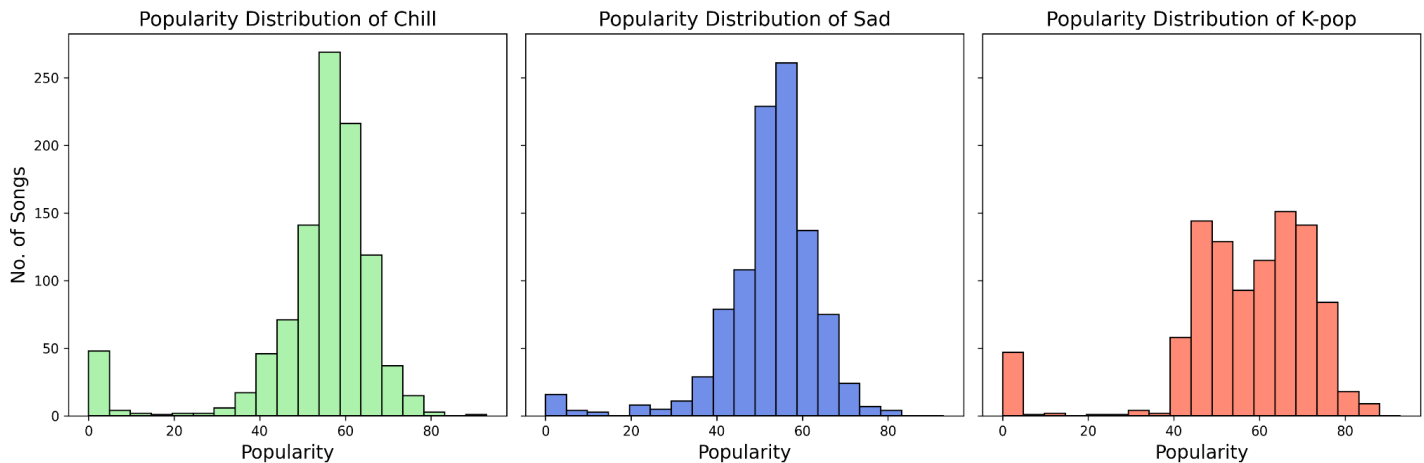


Figure 6: Comparing Histograms of three of the most non-polarizing popular genres

Chill, sad, and K-pop are three of the most popular genres that are not polarizing unlike the previous three. Chill and sad are not traditional “genres”, as most people would associate the words with types of music such as rock, jazz, or country. This is because it is very common for people to listen to music for vibes or mood, and, in order for the algorithm to correctly recommend listeners more songs they would enjoy, “chill” and “sad” are used alongside traditional genres such as “rock” and “hip-hop” to do so. Funnily enough, “happy” or any other synonym does not appear as a genre, but “sad” and “emo” do. According to Spotify, it seems that “happy” does not have a generalisable music aesthetic, whereas “chill” and “sad” do. On another note, K-pop has risen in popularity along with streaming—it is common for passionate fans to rush to various DSPs to boost their favorite artists’ stats. The cost to do so is lower now than before as fans can use free accounts to stream rather than purchase the music.

Citations:

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Critiques from Claire Song:

I like how the bar chart is easy to understand which artists have the most top streaming songs. One critique would be just to add more context to the title (specifically year). The pink scatterplot being in terms of log makes it easy to see that songs popular on Deezer are likely to also be popular on Spotify. I like how you also represented the songs' prevalence on Apple Music through the color scale - I guess the only edit I would think to make would be to change the legend to a continuous color gradient rather than a discrete one. It's interesting to see how jazz and classical music have the same unimodal distribution. I like how the colors you chose (yellow and blue) clearly reflect where the distributions overlap. I recommend you change the title of the last two graphs as I am a little confused on what they are referring to.