

Audio Features Analysis of Ed Sheeran's Music on Spotify

Your Name

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Introduction

Ed Sheeran is one of the most successful and influential contemporary artists, known for his blend of pop, folk, and acoustic music. His songs are consistently streamed by millions across platforms like Spotify. This report uses data from Spotify to analyze Ed Sheeran's music over time, exploring key features such as track popularity, duration, and other audio characteristics like energy, danceability, and valence. These metrics provide insight into his evolving musical style and listener preferences.

Data Collection

Using the `spotifyr` package in R, data on Ed Sheeran's tracks were collected through Spotify's Web API. Audio features such as **popularity**, **duration**, and other key characteristics were retrieved. These features, available through Spotify's proprietary algorithms, provide insights into how songs are perceived (e.g., popularity) and their structural properties (e.g., duration, energy, danceability).

The data was saved as `ed_sheeran_data.rds` and analyzed to explore trends in Ed Sheeran's music.

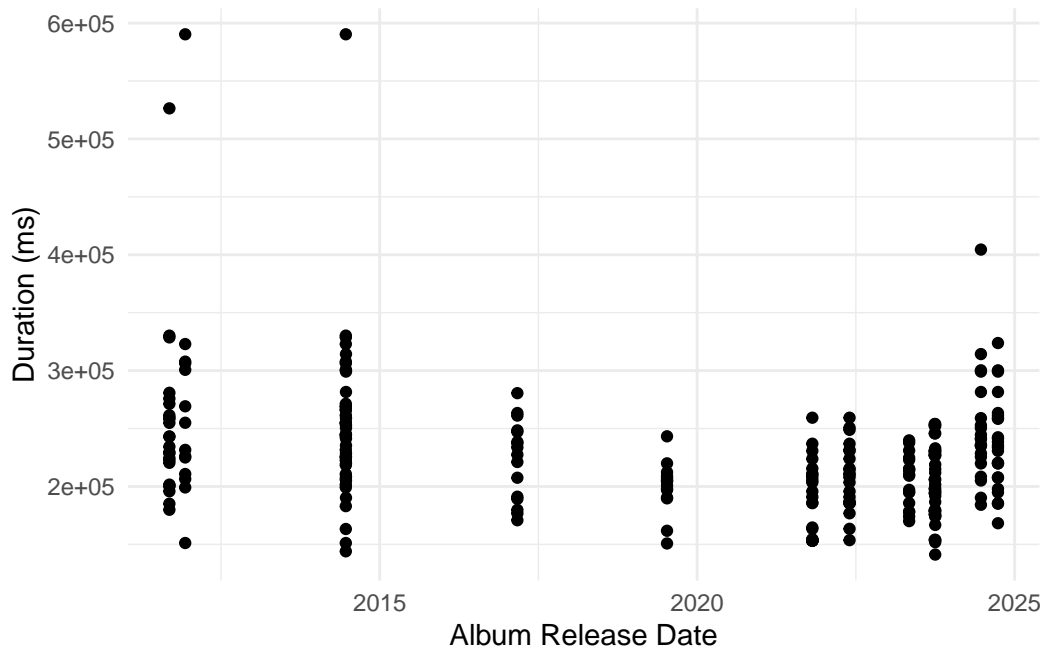


Figure 1: Song Duration Over Time for Ed Sheeran

Analysis and Findings

Song Duration Trends Next, we explore the average duration of Ed Sheeran's songs. Has he tended to produce longer or shorter tracks over time?

The graph indicates that Ed Sheeran's song durations have remained relatively stable, with most songs ranging between 180,000 and 240,000 milliseconds (around 3 to 4 minutes). While there are a few longer songs, the trend line shows no significant increase or decrease in song length over time.

Valence of Ed Sheeran's Songs Over Time

Valence describes the musical positivity of a track, with higher values indicating happier or more positive songs. In this analysis, we explore how Ed Sheeran's songs have varied in valence over the course of his career.

As we can see, albums such as No.6 Collaborations Project have higher average danceability, reflecting Ed Sheeran's collaborations with artists known for more upbeat tracks.

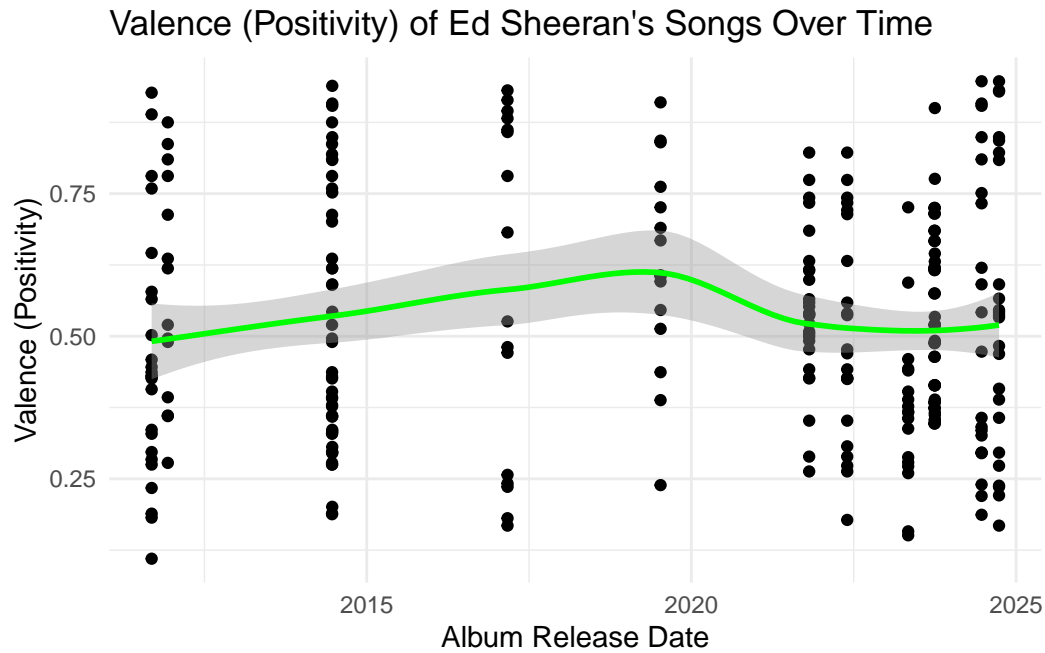


Figure 2: Valence (Positivity) of Ed Sheeran's Songs Over Time

Conclusion

This analysis highlights several interesting trends in Ed Sheeran's music. His song popularity shows spikes around major album releases, and while the duration of his songs remains consistent, the energy, danceability, and valence of his music shift across different albums. These insights reveal the versatility in Ed Sheeran's music style, adapting to different musical influences while maintaining a consistent appeal to his audience.

Appendix

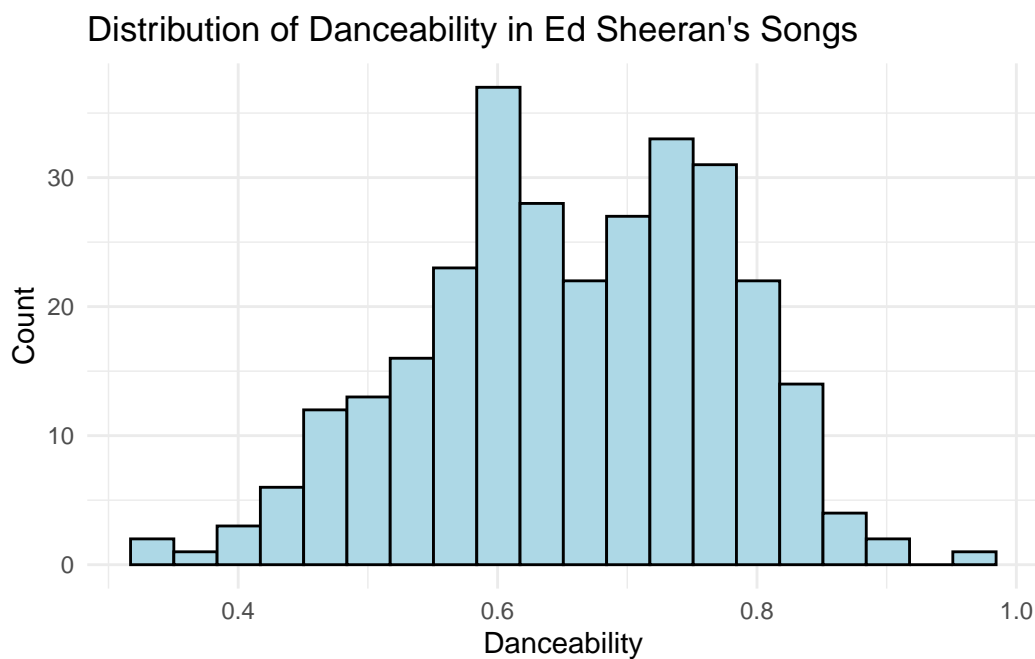


Figure 3: Distribution of Danceability in Ed Sheeran's Songs

References