

Testing*

Names

October 10, 2024

Write something

*Code and data are available at:

1 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.

The remainder of this paper is structured as follows. Section 2 provides a sample look at the data and the data cleaning methodology. **2.1 Results** presents trends in Ed Sheeran’s song valency over the years. **2.2 Discussion** dives into the analysis of the trends.

The dataset was downloaded using R (R Core Team 2023), and spotify API (Thompson et al. 2022), with support using usethis (Wickham et al. 2024). The dataset was also cleaned and plotted using the tidyverse (Wickham et al. 2019), knitr (Xie 2023), and ggplot2 (Wickham 2016) packages.

2 Data

Table 1 is a sample of the downloaded data from Thompson et al. (2022), and the columns needed for our analysis.

Table 1: Sample Data

album_release_date	valence
2017-03-03	0.862
2024-09-27	0.931
2014-06-21	0.359
2022-05-27	0.734
2014-06-20	0.189

3 Results

3.1 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.

```
`geom_smooth()` using formula = 'y ~ x'
```

```
Warning: Removed 24 rows containing non-finite outside the scale range  
(`stat_smooth()`).
```

```
Warning: Removed 24 rows containing missing values or values outside the scale range  
(`geom_point()`).
```

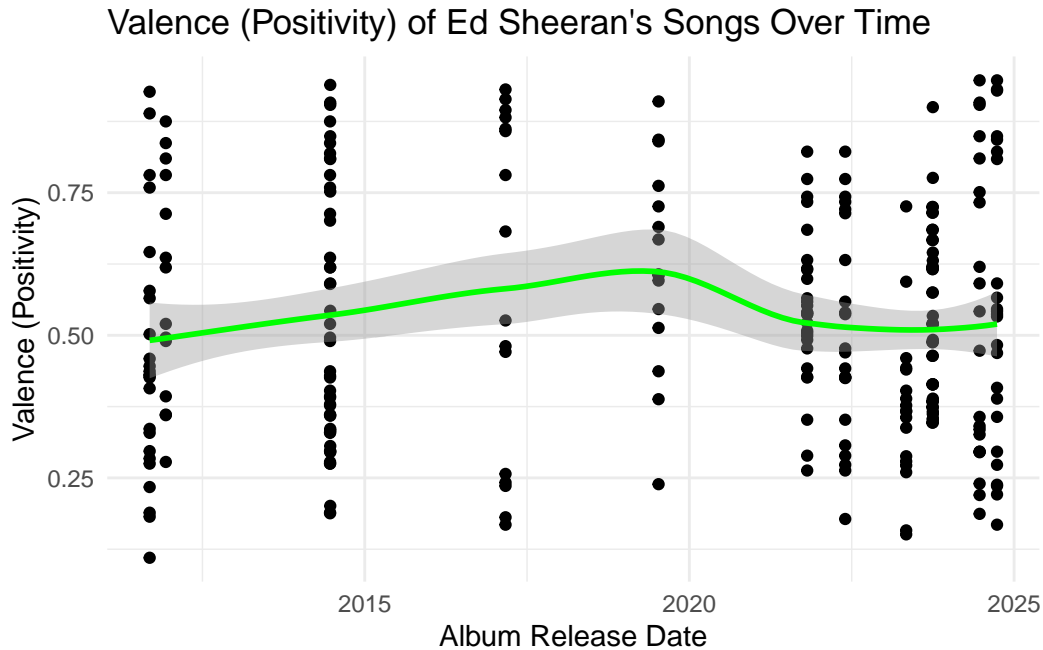


Figure 1: Valence (Positivity) of Ed Sheeran's Songs Over Time

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.

4 Discussion

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.

5 Appendix

References

- R Core Team. 2023. *R: A Language and Environment for Statistical Computing*. Vienna, Austria: R Foundation for Statistical Computing. <https://www.R-project.org/>.
- Thompson, Charlie, Daniel Antal, Josiah Parry, Donal Phipps, and Tom Wolff. 2022. *spotifyr: R Wrapper for the 'Spotify' Web API*. <https://github.com/charlie86/spotifyr>.
- Wickham, Hadley. 2016. *ggplot2: Elegant Graphics for Data Analysis*. Springer-Verlag New York. <https://ggplot2.tidyverse.org>.
- Wickham, Hadley, Mara Averick, Jennifer Bryan, Winston Chang, Lucy D'Agostino McGowan, Romain François, Garrett Golemund, Alex Hayes, et al. 2019. "Welcome to the tidyverse." *Journal of Open Source Software* 4 (43): 1686. <https://doi.org/10.21105/joss.01686>.
- Wickham, Hadley, Jennifer Bryan, Malcolm Barrett, and Andy Teucher. 2024. *usethis: Automate Package and Project Setup*. <https://CRAN.R-project.org/package=usethis>.
- Xie, Yihui. 2023. *knitr: A General-Purpose Package for Dynamic Report Generation in R*. <https://yihui.org/knitr/>.