

Annotated Bibliography

Anglada-Tort, Manuel, et al. "Popular music lyrics and musicians' gender over time: A computational approach." *Psychology of Music*, vol. 49, no. 3, 23 Oct. 2019, pp. 426–444, <https://doi.org/10.1177/0305735619871602>.

This study, conducted through a UK lens, focused on examining gender inequalities and inflection points in Billboard charts over the years. Utilizing various data and machine techniques, the analysis primarily centered on naturalistic sales chart data. It revealed notable trends such as the increase in women's roles in top sales, particularly in 1968, 1976, and 1984, and the significant rise in the use of repetition over time. While these findings offer insights into how data software can be utilized for trend analysis and inflection point identification, the overall findings may not be directly applicable to our research, primarily because they were more focused on gender differences between men and women. However, one relevant discovery was the general increase in the total number of words over time contrasted with a significant decrease in variety, which aligns with our interest in analyzing trends and context within our dataset. This study's approach to data scanning techniques and contextual analysis provides valuable lessons for handling our extensive dataset, identifying trends, and relating them to background events.

Bonneville-Roussy, Arielle, and John Rust. "Age Trends in Musical Preferences in Adulthood: 2. Sources of Social Influences as Determinants of Preferences." *Sage Journals*, 10 May 2017, journals.sagepub.com/doi/full/10.1177/1029864917704016. Accessed 16 Feb. 2024.

This study investigates the impact of social influences, such as social networks and interpersonal dispositions, on age trends in musical preferences in adulthood, using the Music Preferences in Adulthood Model (MPAM) as a framework. This resource is important because it contributes to our understanding of how social factors shape musical preferences in adulthood, highlighting the role of the social network and interpersonal dispositions in influencing age-related changes in musical taste. Specifically for our project, this resource provides valuable insights into the extrinsic determinants of musical preferences in adulthood, particularly the influence of social factors such as conformity. By examining the relationships between age, social influences, and musical preferences, this study informs our analysis of how cultural and social contexts shape individual preferences over the lifespan.

Christenson, Peter G., et al. "What Has America Been Singing About? Trends in Themes in the U.S. Top-40 Songs: 1960–2010." *SageJournals*, 23 Jan. 2018, journals.sagepub.com/doi/full/10.1177/0305735617748205. Accessed 16 Feb. 2024. This study analyzes 19 lyrical themes in 1,040 U.S. top-40 songs from 1960 to 2010, examining trends and breaks in trends using R strucchange software. While some themes are shared between the dataset used in this research paper and our dataset, such as romantic, dating, obscene, music, danceability, violence, and family/spiritual, this dataset includes other themes such as alcohol/drugs, wealth/status, social/political issues, alienation/unhappiness/depression, death, etc. It seems to use more introspective themes compared to the ones in our original dataset. This resource is important because it provides insights into the evolution of lyrical themes in popular music over five decades, highlighting both continuity and change in the content of top-40 songs. For our project, this resource offers valuable data on the prevalence and trends of lyrical themes, particularly regarding relationships, sexuality, lifestyle, and social context. This data will inform our analysis of how musical content reflects cultural shifts and influences adolescent perceptions and behaviors.

Gossi, Derek, and Mehmet H. Gunes. "Lyric-based music recommendation." *Studies in Computational Intelligence*, 2016, pp. 301–310, https://doi.org/10.1007/978-3-319-30569-1_23.

This source delves into the intricacies of music recommendations and their impact on chart success, taking a unique approach compared to our other sources. It explores how music recommendations are formulated and how this process influences the success of songs on charts. Through a detailed analysis of tag categories and collaborative filtering recommendations, the study employs various techniques and gathers data from different music sources. The study's findings reveal that lyrical recommendations tend to be more effective than recommendations based on clustered categories or artists. This effectiveness stems from the nuanced understanding of lyrical sentiment and emotion within songs, contrasting with broader recommendations generated by generic software. While this information may not directly correlate with our specific research focus, it offers valuable insights into the broader music industry landscape. It underscores the importance of lyrical content in music recommendations and suggests that a deeper understanding of lyrical sentiment could enhance our analysis. Moreover, the data regarding lyrical sentiment can serve as a benchmark for our own analysis of lyrical content, allowing us to compare sentiments such as sadness or vibrancy across different music styles. By leveraging this perspective on the music industry, we aim to gain insights into how lyrics contribute to chart success, refine our data-cleaning processes, and deepen our examination of lyrical elements in music.

Hall, P. Cougar, et al. "Alcohol, Tobacco, and Other Drug References in Lyrics of Popular Music from 1959 to 2009." *Addiction Research & Theory*, vol. 21, no. 3, July 2012, pp. 207–15, <https://doi.org/10.3109/16066359.2012.704651>.

The journal article analyzes the presence and trends of alcohol, tobacco, and other drug (ATOD) references in the lyrics of popular music listed in the Billboard Hot 100 year-end songs from select years between 1959 and 2009. This resource is important as it provides evidence on the prevalence and evolution of ATOD references in popular music over five decades, suggesting insights into how music reflects and possibly influences societal attitudes toward substance use. Regarding our project, the study's findings on the increase in ATOD references and their associated motivations in song lyrics can serve as a critical data point for analyzing the intersection of music, societal trends, and cultural attitudes toward drug use over time in our dataset. It can aid in understanding the role of music as a mirror to societal changes and challenges, such as shifting perceptions regarding substance use.

Interiano, Myra, et al. "Musical trends and predictability of success in contemporary songs in and out of the top charts." *Royal Society Open Science*, vol. 5, no. 5, May 2018, p. 171274, <https://doi.org/10.1098/rsos.171274>.

This study conducted by the reputable Royal Society Open Science focused on analyzing trends in a metadata set akin to our project, delving into the lyrical content trends over time and their correlation with commercial and Billboard success. Notably, the study revealed a clear downward trend in 'happiness' and 'brightness' alongside a slight upward trend in 'sadness.' Additionally, there was a multi-decadal increase in songs' 'danceability' and 'relaxedness,' hinting at the rising popularity of dance-based pop compared to rock-type song styles. The findings also indicated that successful songs tend to be more 'danceable' and 'happier' than unsuccessful ones. Moreover, the study employed random forecasting and included superstar variables, which assessed whether the song's artist had previously appeared in the top charts. These aspects of the study provide valuable insights into our own experiment, particularly concerning methodology, potential biases, and control variables. By closely examining these findings, we can draw parallels, identify potential biases, and implement effective control measures to enhance the accuracy and reliability of our research. This comparative analysis will offer a new perspective to our project, allowing us to assess if our data visualizations and data analysis reflect similar trends and patterns.

Kamalnathan, Selvakumar, et al. "Evolution of different music genres." *International Journal of Engineering and Advanced Technology*, vol. 9, no. 1, 30 Oct. 2019, pp. 5138–5143, <https://doi.org/10.35940/ijeat.a1674.109119>.

This study delves into the evolution of five major music genres—hip-hop, rock, pop, country, and metal—across the past five decades, scrutinizing shifts in lexical diversity and sentiment analysis. The researchers also employed classification methods to categorize prevalent words within specific genre periods. The findings revealed intriguing trends: while lyricists initially leaned towards longer songs in the early 21st century, recent trends indicate a slight decrease in song length. Notably, hip-hop is characterized by a profusion of expletives, while pop music has maintained a consistent theme of love over the years without much evolution in frequently used words.

Interestingly, pop music stands out for its increase in lexical diversity, possibly due to the need to convey a constant theme in unique ways to sustain audience interest. However, the sentimental analysis across all genres reveals a concerning trend of music becoming increasingly negative. This information is particularly pertinent to our research, which focuses on sentiment analysis across seven music genres, four of which align with the genres discussed in this paper. Understanding these trends will guide our data analysis, helping us identify potential similarities or deviations in our dataset.

Lerch, Alexander. “The Relation between Music Technology and Music Industry.” SpringerLink, Springer Berlin Heidelberg, 1 Jan. 1970, link.springer.com/chapter/10.1007/978-3-662-55004-5_44.

This paper focuses on how technology has affected the trajectory of music over the years. Major technological advancements in music, for example, the introduction of vinyl disks to cassette tapes to digital audio available at your fingertips, play a large role in how people can receive and share it, and additionally, who can embrace and influence it. The information in this paper is very useful for our project as it provides a very important context to a driving contributor to change in musical trends. It will be very useful background information for our research and findings.

Malm, Krister. “Music on the Move: Traditions and Mass Media.” *Ethnomusicology*, vol. 37, no. 3, 1993, pp. 339–352, <https://doi.org/10.2307/851718>.

In this Journal, Krister discusses the role of mass media in certain processes of change within music. Krister refers to this process as mediatization where a certain music is changed through interaction with a mass media system, such as the progressively more advanced and technically involved studio session process, and the utilization of cassette tapes or digital playback in churches and other religious and public places. This journal takes a very nuanced approach to this topic, bringing up various examples of how this concept has evolved over time. This is important for us because it fills in some holes in

the general understanding of how mass media affects both the consumption and the process of producing music.

Mauch, Matthias, et al. "The Evolution of Popular Music: USA 1960–2010." *Royal Society Open Science*, 1 May 2015, royalsocietypublishing.org/doi/full/10.1098/rsos.150081. Accessed 16 Feb. 2024.

This study employs music information retrieval and text-mining tools to analyze approximately 17,000 recordings from the US Billboard Hot 100 between 1960 and 2010, investigating trends in musical properties and styles to understand the evolution of popular music. This resource is important because it provides a quantitative analysis of the evolution of popular music in the USA over five decades, offering a scientific approach to understanding cultural change in music rather than relying on anecdotal evidence or subjective assessments. Specifically for our project, this resource offers valuable insights into the quantitative trends and stylistic changes in popular music, providing a basis for examining how musical diversity and disparity have evolved over time. By understanding the rapidity and punctuated nature of stylistic revolutions, as identified in this study, we can contextualize our analysis of cultural change in relation to specific periods of musical evolution.

Napier, Kathleen, and Lior Shamir. "Quantitative Sentiment Analysis of Lyrics in Popular Music." *Journal of Popular Music Studies*, vol. 30, no. 4, Dec. 2018, pp. 161–76, <https://doi.org/10.1525/jpms.2018.300411>.

The journal analyzes the trend of increasing lyrical simplicity in American popular music over six decades, investigating its correlation with the production of novel song choices and various ecological and cultural factors. This study is important as it shows how the complexity of song lyrics reflects cultural shifts and preferences, suggesting the impact that different cultures can have on the music landscape. In relation to our dataset that correlates the evolution of music to societal changes, this journal can help in understanding how lyrical simplicity correlates with cultural trends and song success. This will be beneficial in our overall goal of analyzing the dynamics between lyrical content, societal trends, and the overall evolution of music over the last few decades.

Varnum, Michael E. W., et al. "Why Are Song Lyrics Becoming Simpler? A Time Series Analysis of Lyrical Complexity in Six Decades of American Popular Music." *PLOS ONE*, edited by Ronald Fischer, vol. 16, no. 1, Jan. 2021, p. e0244576, <https://doi.org/10.1371/journal.pone.0244576>.

This journal article utilizes digital humanities and data science tools to analyze how the sentiments expressed in the lyrics of popular music have evolved from the 1950s through 2016, focusing on Billboard Hot 100 songs. It provides evidence of significant changes in the emotional tone of popular music lyrics over time, revealing a trend towards more negative sentiments. This is crucial for understanding the cultural and societal shifts reflected in popular music. The article's quantitative analysis and findings on the sentiment trends in popular music lyrics can help us with our project, which aims to explore the relationship between societal changes and lyrical content in popular music. It provides a methodological model for conducting similar analyses within my dataset, allowing us to extend the exploration to additional dimensions such as musical features, genres, and thematic tags. Thus, we can examine how these elements correlate with the observed sentiment trends.