

Mentor Name. : John Rachlin Subject/Category: Data Science : DS3500 Class Group # : 45

Northeastern University

Country1: JOLENE-Beyonce Country2: BODYGUARD - Beyonce

Country3: II MOST WANTED - Beyonce & Miley Cyrus

Country4: AMERIICAN REQUIEM - Beyonce Country5: LEVII'S JEANS - Beyonce

Song Lyric Analysis: Country vs Pop

Russell Welch, Cody Ho

Pop1: Karma-JoJo Siwa

Pop2: we can't be friends- Ariana Grande Pop3: Days of Girlhood – Dylan Mulvaney

Pop4: DAUGHTER - Beyonce Pop5: so american – Olivia Rodrigo

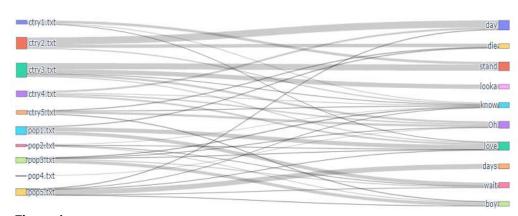


Figure 1

In figure 1, we created a Sankey diagram using our top 10 most common words and connected them to each song. On the left, the upper half contains all of the country, and pop on the bottom half. The thickner the node, the higher the word count was.



Figure 2

Fig 2 contains subplot word clouds for each song, where larger words representing a higher wordcount for that song. Using stop word removal, we can visualize those words that may set Country apart from Pop singles

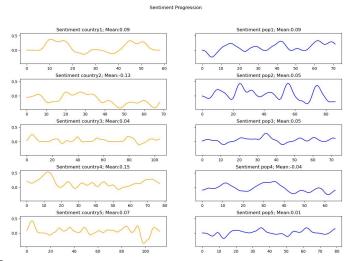


Figure 3 This figure shows how the sentiment of each line in the song. The left is of the top 5 charting country songs this month and the right is of the top pop songs. The country songs appear to in general have a sentimental start and end while being neutral in the

middle while pop appear to vary more.

Process and Methods

- Selected songs using this month's top 5 country and pop singles on genius.com, a music database.
- With the textastic library, added functions that could perform sentiment analysis and wordcounts for creating data visualizations.

Conclusion and Next Steps

- There were words in our findings that stood out to us in helping classify the genre, especially when looking into smaller or less frequent words such as 'rider', 'saddle', and 'shotgun' which suggest Country.
- In terms of future work, would love to continue exploring other genres of music, and investigating the importance of sentiment in predicting genre.

Author Contributions

Russ: Designed and implemented library frameworks, built processors for text files that he was able to load in, and performed sentiment analysis

Cody: Created and tailored stop word list, created wordcount framework to get total and individual wordcount data for each song, and created Sankey + Wordcloud plots