



# Musical Positivity Over Time

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# Objective

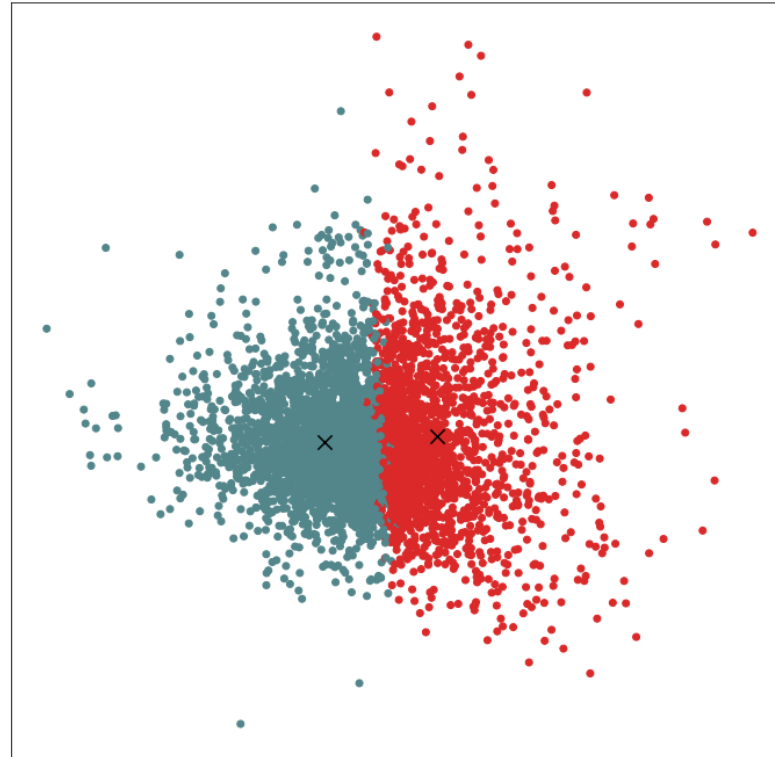
- ▶ Does popular music change with respect to current events?
- ▶ Analyze top 100 songs over several decades
- ▶ See if sentiments change over time

# Methodology

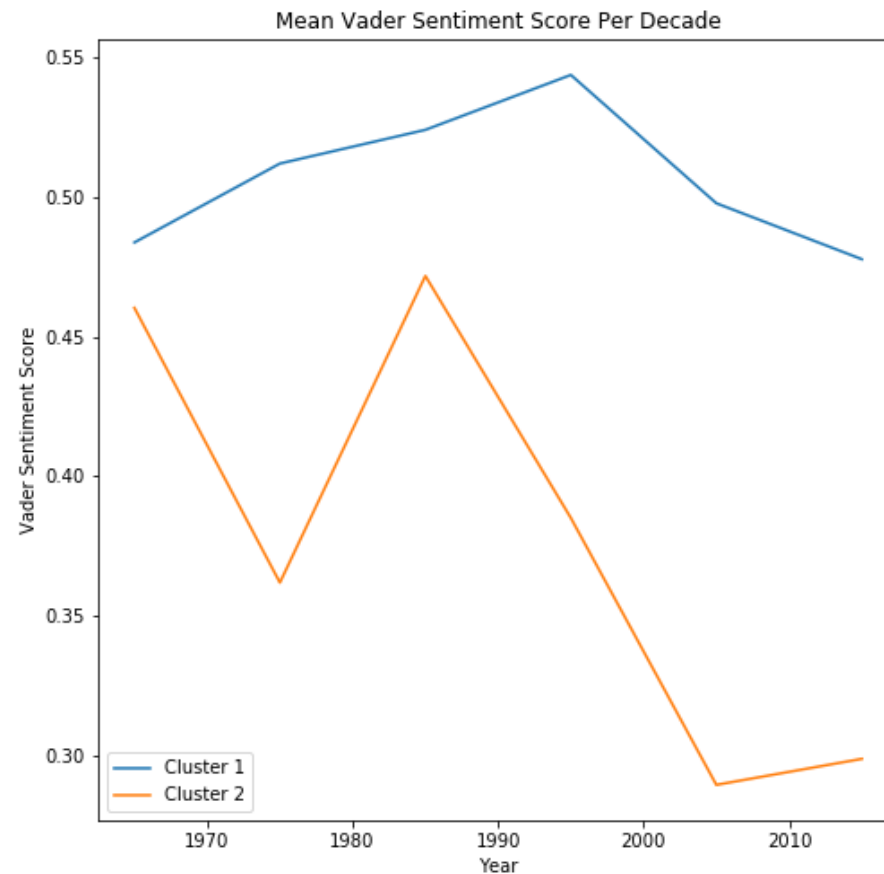
- ▶ Data:
  - ▶ Billboard top 100 songs from 1964 to 2015
  - ▶ Lyrics scraped from Genius.com
- ▶ Tools:
  - ▶ Python, pandas, numpy
  - ▶ Sklearn, nltk
  - ▶ Vader & TextBlob models

# Results - Clustering

K-Means Cluster



# Results – Vader Sentiment Analysis



# Results – TextBlob Sentiment Analysis



# Conclusion

- ▶ Charts are overall positive
- ▶ Cluster 1 on average more positive than Cluster 2
- ▶ Both clusters become more negative over time

# Future Work

- ▶ Topic modeling on clusters to see how songs were split
- ▶ Analysis on each decade to correlate to trends

# Thank you!

► Any questions?

# Appendix

- ▶ <https://oxfordre.com/politics/view/10.1093/acrefore/9780190228637.001.0001/acrefore-9780190228637-e-81?mediaType=Article>
- ▶ Data from 1964-2015, approximately 6000 songs worth of data. Only 5000 used as the rest were unable to obtain lyrics for
- ▶ Cluster size of 2 was determined using silhouette scoring
- ▶ Both Vader & TextBlob over-predict positivity