
The Great American Songbook Classifier

— By Royce Phillips Jr —

What is “The Great American Songbook”?

The Great American Songbook

A Salute to the Golden Age of American Popular Music



<https://miznerparkculturalcenter.com/gtamsbkpix/>

Motivation

- Huge jazz fan
- Jazz Standards
- Large source for music in 30's, 40's, and 50's
- Many musicians performed
 - Charlie Parker
 - Miles Davis
 - Ella Fitzgerald
 - Frank Sinatra
- Built up jazz chord progressions
 - Contrafacts
- Interested to see how lyrics have changed and compare

Why Disney?



<http://www.munciejournal.com/2015/11/mso-presents-disney-in-concert-magical-music-from-the-movies/>
<https://1000logos.net/walt-disney-logo/>

Problem Statement

Lyrics have a lot of similarities in the content they talk about from love to heartbreak. “The Great American Songbook” has hundreds of songs that revolve mostly around these topics and so does Disney. If there are a lot of similar words like ‘love’ in musical lyrics. Is it possible to create a model that is able to predict if the lyrical content is from “The Great American Songbook” or from Disney. The goal is to see what differences there are between the two genres of music.

Composers and Movies



<https://www.britannica.com/biography/Irving-Berlin>

<https://www.imdb.com/title/tt0120762/>

https://www.imdb.com/title/tt0097757/?ref_=nv_sr_srsq_0

https://en.wikipedia.org/wiki/Cole_Porter

Where's the data?

LYRICSFREAK

 Disneyclips.com



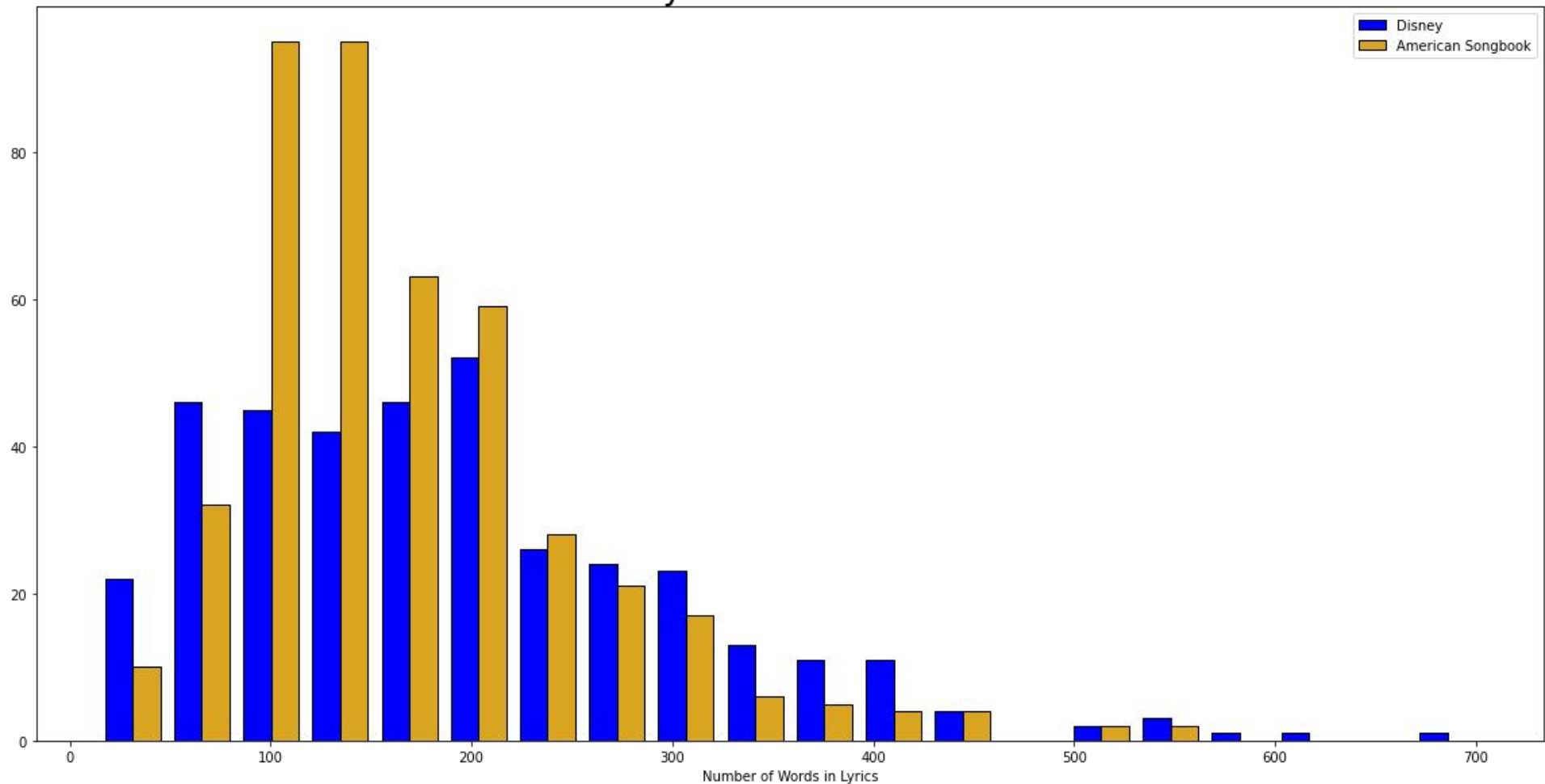
<https://www.lyricsfreak.com/>

<http://www.disneyclips.com/lyrics/>

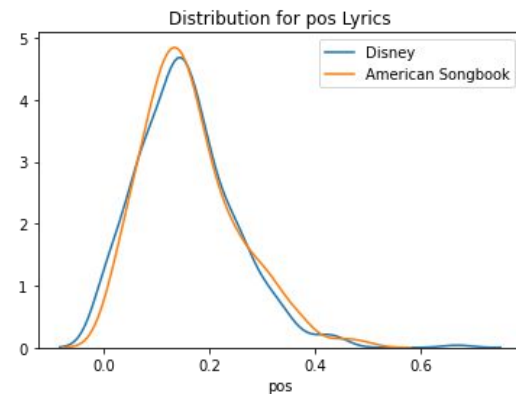
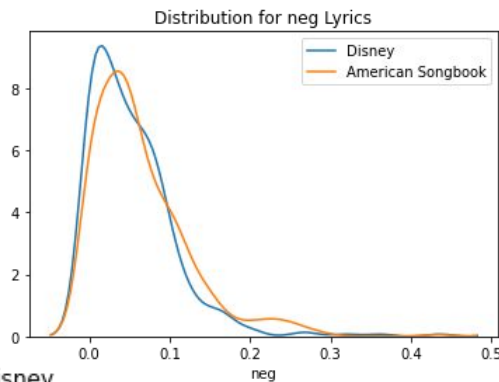
Limitations of data

- Limited lyrics
- Limited available lyrics
 - Limited amount of composer lyrics
- Trusting websites for correct lyrics

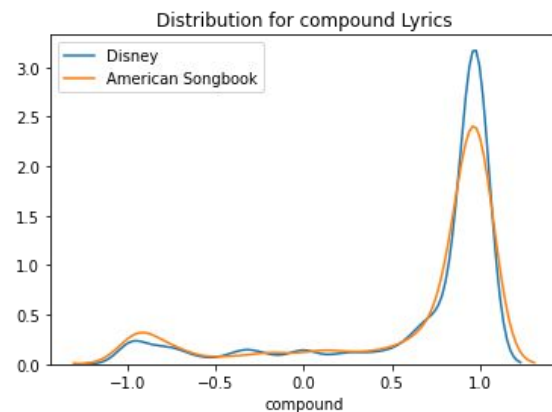
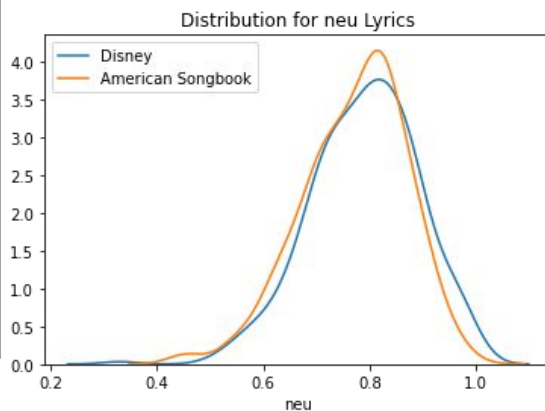
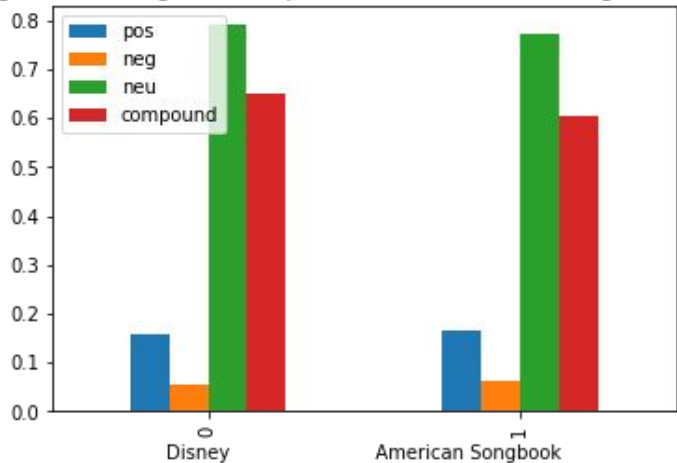
Lyric Word Count



Sentiment Analysis



Average Positive/Negative/Compound Scores American Songbook Vs. Disney



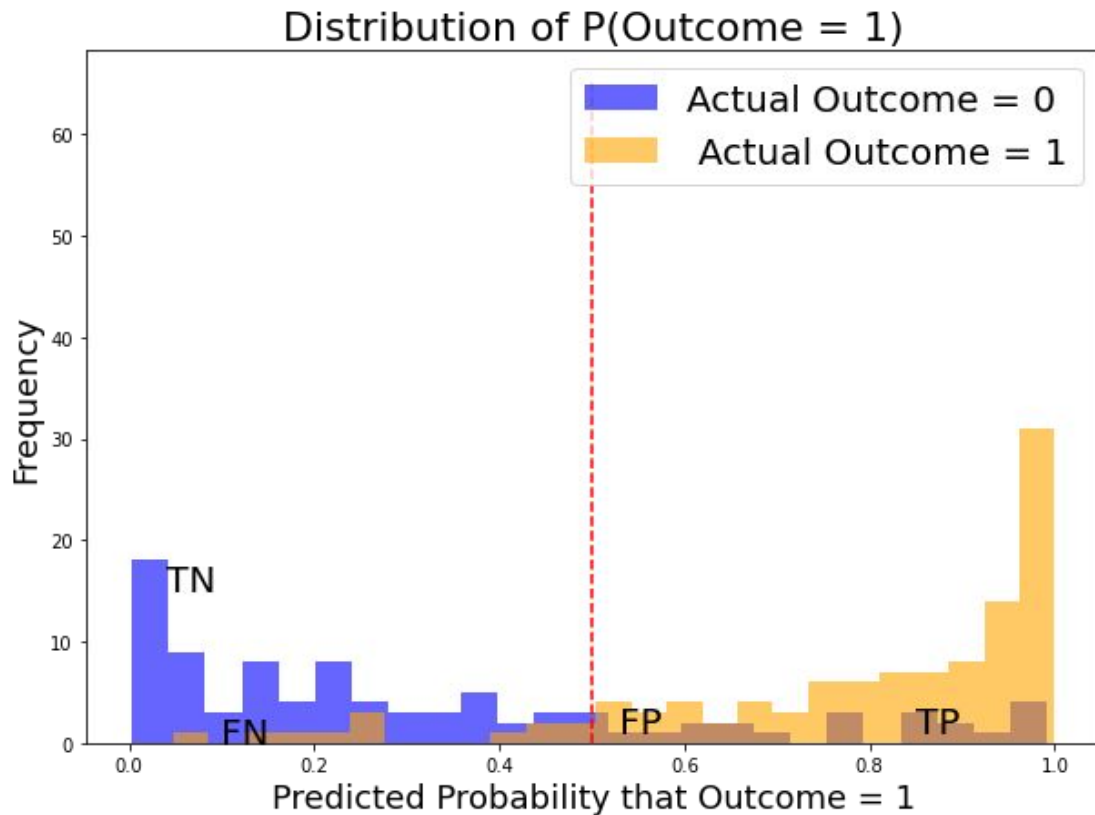
Modeling

<u>Model</u>	<u>Training Score</u>	<u>Testing Score</u>
Logistic Regression + CVEC	77.5%	77.5%
Logistic Regression + TFIDFVectorizer	77.1%	80.4%
Extra Tree Classifier + CVEC	77.5%	81.9%
SVC + TFIDFVectorizer	77.3%	83.3%
Random Forest Classifier + CVEC	78.9%	78.9%

Top Words

<u>WORDS</u>	<u>COEFFICIENTS</u>
Baby	1.612
Was	1.450
Man	1.379
Love	1.316
Then	1.315
Old	1.307
White	1.265
That	1.229
Shall	1.229

Confusion Matrix



Incorrect Lyrics

- 70% of incorrect lyrics Disney
- 50% of those incorrect Disney Renaissance
- 35% of song in test set Disney Renaissance
- Irving Berlin most incorrect of composers
- Pocahontas most incorrect of Disney

Disney Renaissance and Golden Age



‘What Makes Disney Music Sound Nostalgic’

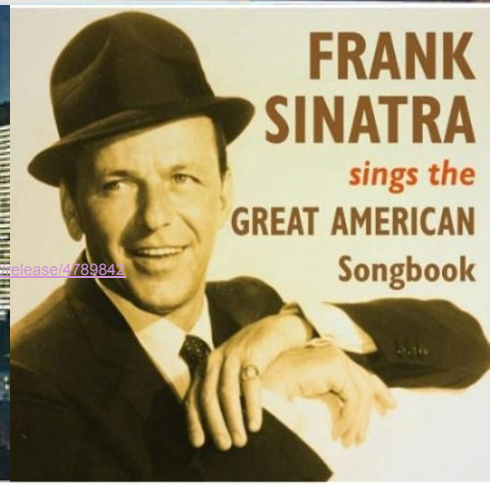
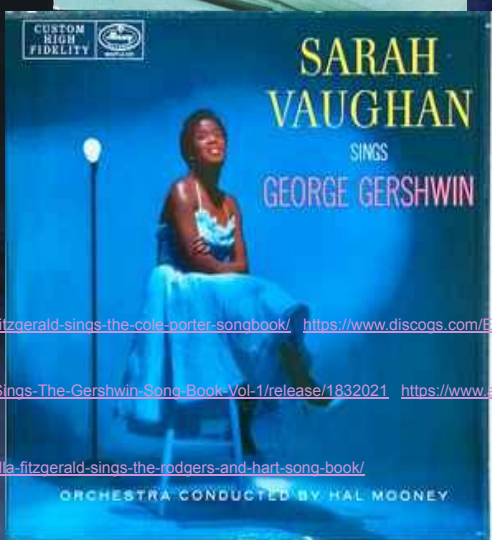
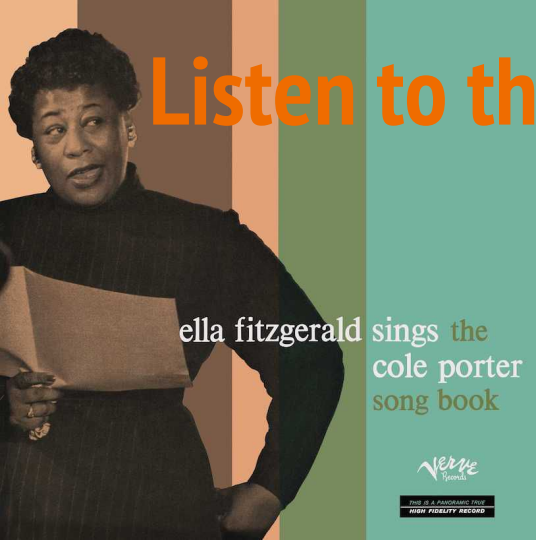
<https://www.youtube.com/watch?v=JX0qZY9VKIM>

Howard Ashman

Conclusion

- Limitations of the lyrics
- Find more lyrics from composers
- Add more Disney Lyrics
- Interesting start for lyric generator
- Interesting to see differences and similarities
- Interesting to learn about Disney Renaissance and Golden Age

Listen to the songs!!



<https://www.udiscovermusic.com/stories/rediscover-ella-fitzgerald-sings-the-cole-porter-song-book/> <https://www.discogs.com/Ella-Fitzgerald-Ella-Fitzgerald-Sings-The-Irving-Berlin-Songbook-volume-1/release/4789842>

<https://www.discogs.com/Ella-Fitzgerald-Ella-Fitzgerald-Sings-The-Gershwin-Song-Book-Vol-1/release/1832021> <https://www.amazon.com/True-Love-Celebration-Cole-Porter/dp/B07TQYS1WC>

<https://rateyourmusic.com/release/album/ella-fitzgerald/ella-fitzgerald-sings-the-rodgers-and-hart-song-book/>