

A Voice of a Generation: Analyzing the Evolution of Bob Dylan's Lyrics

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Project Description

In the music industry success is typically made through a worldly musical talent, whether singing, instrument playing, or performing. Then there is the exception of Bob Dylan, who is not particularly outrageously talented as either; he played the harmonica and guitar, but really nothing special. But why is he regarded as one of the best musicians of all time? Well, it's all about his lyrics. Dylan is a true maker of songs. Growing up in Minnesota, he had a passion for two things: reading books and writing and playing traditional folk songs. As he decided to pack his bags for New York City at age 21 with fifty dollars and one suitcase, little did he know that something special was about to take place. Dylan would stay in New York City for some time playing around at certain jazz and folk clubs, and ultimately he signed an offer with Columbia Records and the rest is history. Dylan would later be regarded as a "voice of a generation" in many people's eyes, and would become a Nobel Prize winner for his poetic expression in his work. Musicians don't win Nobel Prizes for Literature, let alone for anything. Dylan, once again, once again is the exception. This project aims to examine the evolution of Bob Dylan's lyrics over the course of his career as a musician, analyzing how his lyrical choice developed over time. There were many ups and downs throughout his career, and there were times where people expected so much out of him being the so-called voice of a generation, and this project will also explore how these events changed his lyrical style. And lastly, this project aims to look at how Dylan's word choice developed and changed throughout his musical career, as these words were very prominent in the thoughts and minds of our generation.

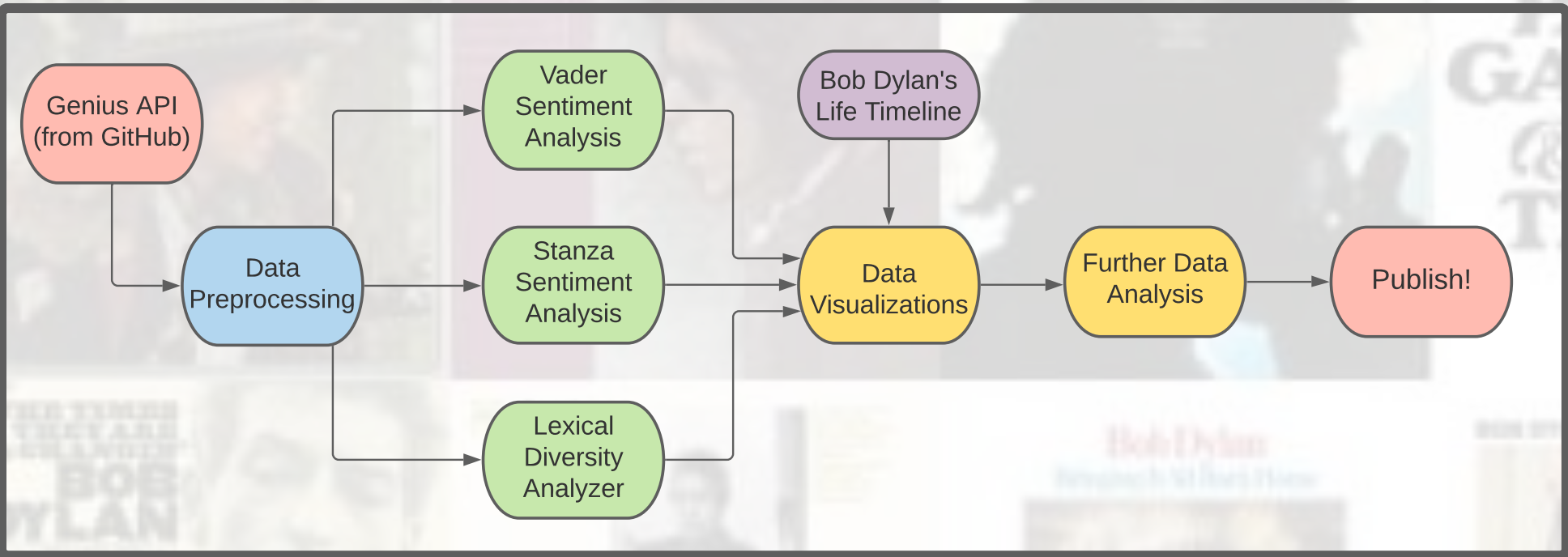
The Data

The data that I'm going to use is based off of the Genius API called "lyricsgenius", where there is access to most of Bob Dylan's albums and their respective lyrics. This package was created by John Miller, and its information is on GitHub (check works cited tab). I plan on collecting lyrics from as many albums as possible specifically in different decades and points in his career, in which I can preprocess and analyze the progression of his lyrics over time.

Questions for Analysis

- How has the sentiment of Bob Dylan's lyrics changed over the course of his career (1960s–2010s)?
- Bob Dylan was known to be an artist who would write about anything that he felt strongly about, much of which tended to be events going on in his life and his thoughts on events going on around the world. How have these events influenced the sentiment of his lyrics? Some examples that come to mind are his big motorcycle accident, his marriage, the Vietnam War, and 9/11.
- How have the diversity, word choice, and vocabulary of his lyrics changed over the course of his career? .

Project Workflow



Works Cited

<https://www.rollingstone.com/music/music-lists/the-evolution-of-bob-dylan-12348/horn-again-1979-1981-30603/>
<https://github.com/johnwmillr/LyricsGenius/blob/master/README.md>
<https://stanfordnlp.github.io/stanza/sentiment.html>
Bob Dylan Chronicles: Volume 1 (Autobiography of Bob Dylan)

Data Analysis Methods

A. Sentiment Analysis with Vader

The first Natural Language processor I used was the Vader Sentiment Intensity Analyzer, which takes in the entire text from an album and determines the overall positive, negative, and neutral sentiment score of that album ranging from 0 to 1.

B. Sentiment Analysis with Stanza

The second Natural language processing method I used came from Stanford's NLP and machine learning program, called Stanza. This tool is similar to Vader, but it takes in sentences of data and determines the positive or negative sentiment of each particular sentence. This tool is able to extract parts of speech and sees how words interact with each other, and extracts sentiment from a more complicated equation. I ran this NLP Sentiment Analyzer on each sentence of each album, accumulating the total scores for each album.

C. Word Clouds

When performing sentiment analysis, it's difficult to see how the actual text changes over time when just looking at changes in sentiment scores, which is why I decided to try to visualize these changes in Bob Dylan's lyrics. With that said, I created 6 word clouds representing the 6 decades of his musical career, combining the texts of each album published in each decade.

Interpretation of Results

A. Vader Sentiment Analysis

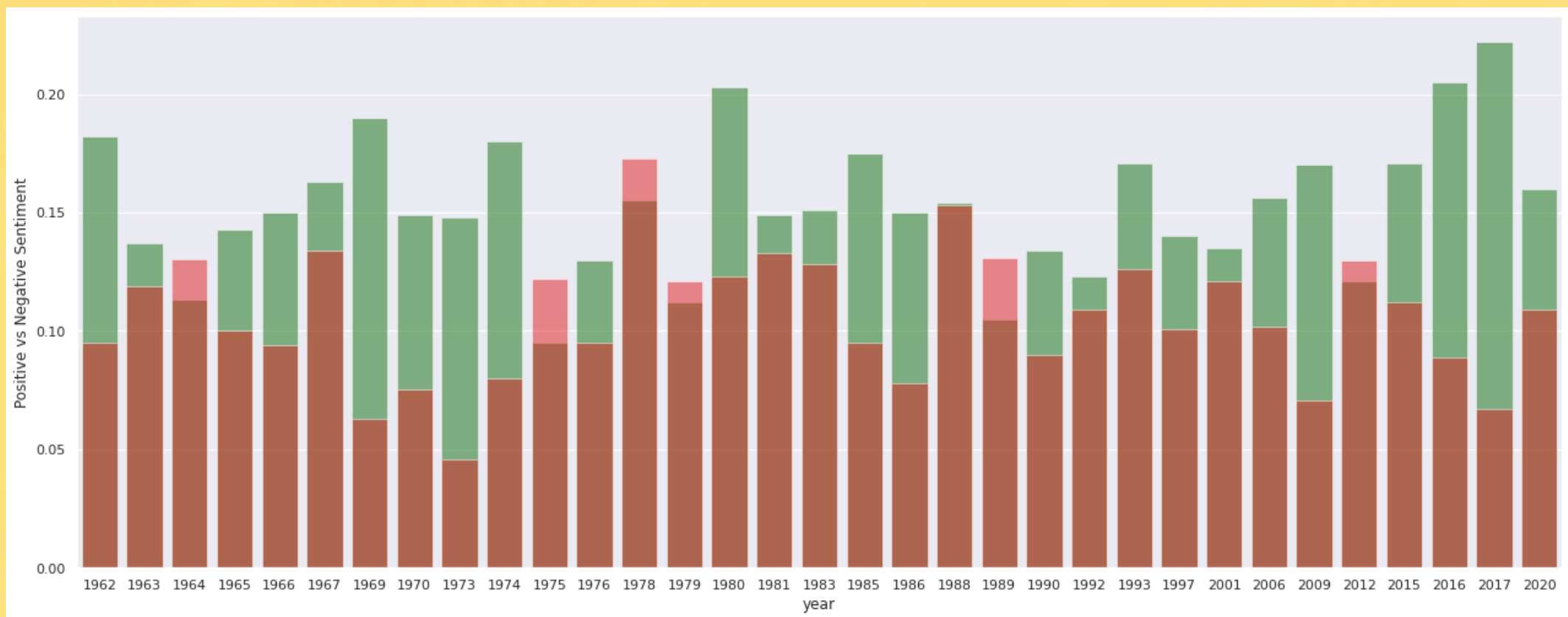
Looking at this visualization of positive sentiment score (green) layered over negative sentiment score (red), we can see that most of Dylan's albums are positive as we see more green than red in the visualization. Specifically, I'm interested in the phases in Dylan's career where there is a lot more positivity or negativity (larger gaps between green and red), and maybe draw from certain events in Dylan's career to see if there's any influence. According to Vader's NLP, the overwhelmingly positive phases in Dylan's career occur from 1969-1974, and the very late stage of career from 2015-2017. According to Rolling Stone and his Autobiography, during the late 60s and early 70s, Dylan was not touring as much and focused on writing his music and felt an enjoyment in writing music, which is likely attributed to this increase in positive sentiment.

The five most positive albums are:

	album
35	Triplicate
34	Fallen Angels
17	Saved
31	Christmas in the Heart
8	Nashville Skyline

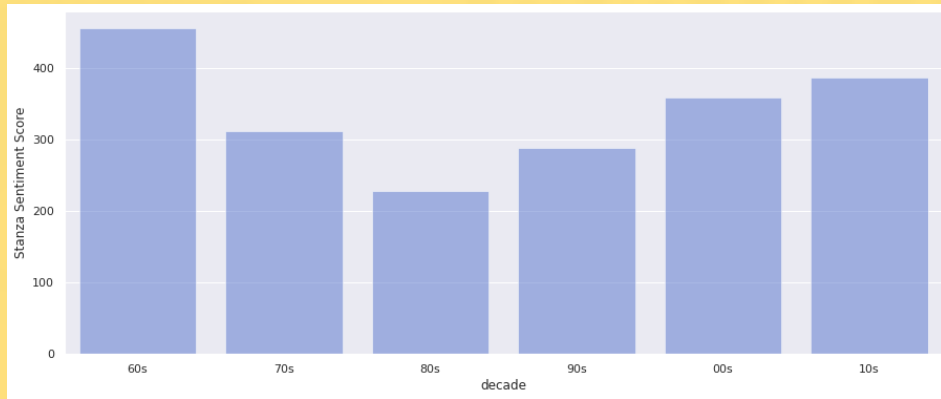
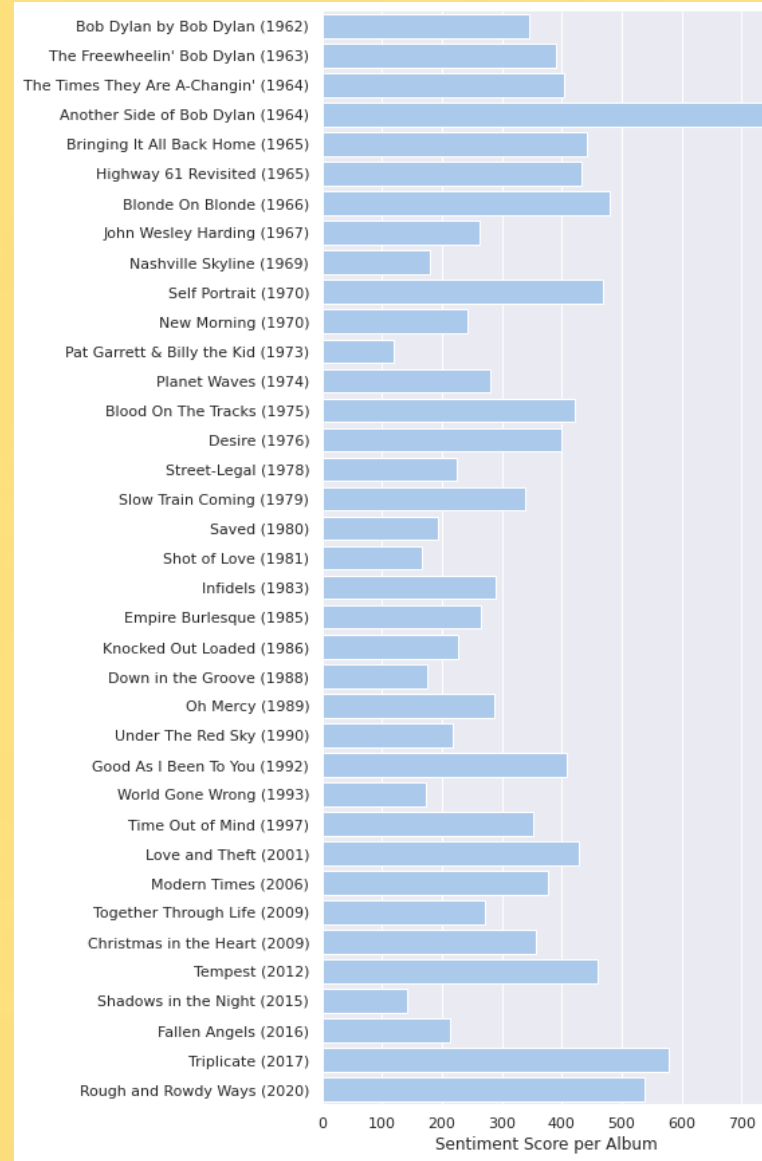
The five most negative albums are:

	album
15	Street-Legal
22	Down in the Groove
2	The Times They Are A-Changin'
7	John Wesley Harding
18	Shot of Love



B. Stanza Sentiment Analysis

Looking at this visualization of Stanza's sentiment score per album, I can see the overall pattern does not differ too much from the Vader language processor. Specifically, the first few early years and the last few years generally seemed to have the most positive sentiment according to both processors, which is interesting to note. However, there are differences in the two. For instance, Vader sees the albums Nashville Skyline (1969) and Fallen Angels (2016) as positive albums but Stanza sees these albums as much lower.



C. Vocabulary and Word Cloud Analysis

These word clouds are difficult to interpret, but I see very positive words in the 1960s collection, as it seems like Dylan is using words that sound like sweet love songs (come, hold, hand, call, fall, better). And as Bob Dylan developed into an artist who became more diverse, he dug into more dark and complicated topics, which we can see by the word clouds of the next few decades. In addition, we do see some common words that have been used throughout Dylan's entire career in which he's likely comfortable writing with (words such as around, along, alone, away, back, come).

