DHUM 1100
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October 2, 2021

<div align="center">Using Voyant and R to uncover the themes of Bruno Mars' Songs</div>

Bruno Mars is an incredibly popular American pop artist known for his songs about love and heartbreak. With this theory in mind, it begs the question, how prominent are the themes of love, and what kinds of feelings do the songs evoke; is it more positive or negative? In addition, based on our previous knowledge and understanding of Bruno Mars' songs, we predict that these two themes will be incredibly popular in his lyrics, with the lyrics evoking slightly more positive emotions than negative.
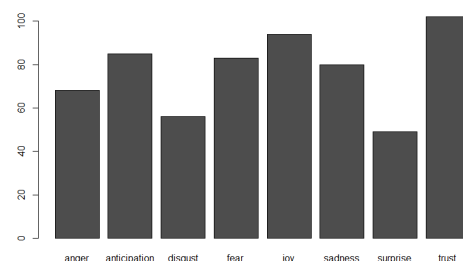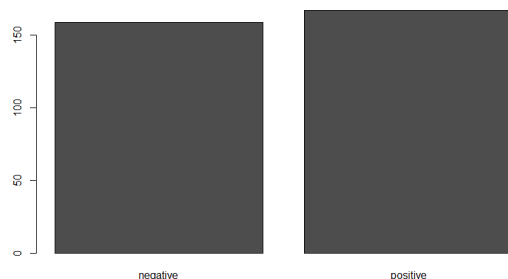
In order to test this hypothesis, two different text analysis tools were used: Voyant and R Studio. Using the Voyant text analysis tool and looking at the two images below, we can see a number of different things. In the first image, we see the progression of 5 different keywords throughout Bruno Mars' lyrics: baby, girl, loves, girls, and pain. There are breaks in the line where the keywords aren't as frequent, showing us that not all of his songs are about love or heartbreak, and that some songs are about different topics. Furthermore, when looking at the word cloud, we can see that some of the most prominent words are girl, baby, love etc. These keywords are usually used when referring to heartbreak and/or love. Thus, using Voyant we can conclude that the themes of heartbreak and love are prominent in Bruno Mars' lyrics, but are not in all of his songs.

To continue on, by looking at the images and graphs generated by the RStudio code. The first of which is a table that shows the word and the frequency of the word. The most prominent few words to appear are know, girl, just, baby, and love, which are similar to the words found when using Voyant.

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word freq
know  223
girl  202
just  186
babi  171
take  138
love  123
feel  121
 can  112
 now  112
make  108
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The other figures show bar graphs of positivity and negativity, as well as sentiment. Based on the graph, the songs are slightly more positive than they are negative, but it's close. In addition, when looking at the bar graph that's based on sentiment, there's a range of emotions that is portrayed. However, it is somewhat shocking that trust is the most prominent sentiment. It does make sense though, as love and heartbreak are prominent themes, and trust is important in love.

Finally, the last figure from RStudio is the word cloud, which shows word frequency in different colors. The most prominent words are as stated above, just shown in a different way. The colors and size also change as the words move further from the center.

All in all, by using both Voyant and RStudio, Bruno Mars' songs were able to be analyzed. The prediction was mostly correct, and the themes were shown to be about love, with mostly positive feelings and emotions being evoked. Depending on what needs to be done, both RStudio and Voyant have both pros and cons. Voyant is easier to use, and the user needs less information to use it. It would be better for something that needs to be done quicker. RStudio has more capabilities, but it requires more coding knowledge to use. Overall, both have amazing capabilities, but RStudio might be better for a more comprehensive text analysis.