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MIS3640

Assignment 2: Twitter User Sentiment on Trump

Project Overview:

The premise of this project was to scrub text from online tweets that included “Trump” in order to see the sentiment users on Twitter had on Trump by classifying them positive or negative. Positive being someone who is a Trump supporter and negative being someone who does not approve of him. I chose this topic as my friends and I have very similar ideologies and opinions of Trump and wanted to see what other people thought. I wanted to see if there is a majority that isn’t highlighted in Trump’s approval ratings.

I used Tweepy along with matplot in order to visualize the difference between the two sentiments.

Implementation:

Some major components of the project is the keys and tokens to work with Twtter’s API. To do this I used the Tweepy library along with textblob to do the sentiment analyses.

After I installed and imported them, I created a class and corresponding functions to work together. I retrieved some tweets that contained the hashtag of Trump to see the output. Then I classified the positive and negative results using TextBlob with a binary approach. Positive was greater than zero and zero was negative. Then I calculated percentages that were later plotted on a bar chart.

Results:

There were a couple of interesting findings with the output. One of which was that in the positive tweet output, there was a result that is highlighted below:

```
\positive tweets:
All true. And a person who doesn't give a damn about our veterans won't care.
#Trump is #UnfitToBePresident… https://t.co/HJSPhKyHis
#MRFREE #MF #FREE #MAGA #MEGA #FREEDOM #2A #TRUMP #USA #ORIGINALISM #CONSTITUTION #DECLARATION… https://t.co/FD2w2jatO5
```

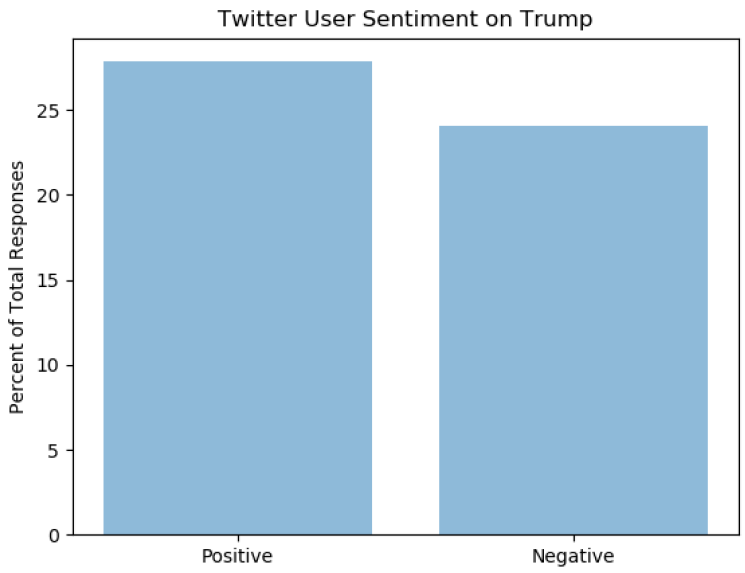
This raises the question of the accurateness of the code as the comment is very anti-Trump. This leads to another interesting point as something similar happened in the negative results. The tweet is highlighted below:

```
Negative tweets:
RT @Unpersuaded112: Because you are a tiny little prick that has a 38% base that loves you. It always seems to snap back to 38% @PO
TUS @rea…
RT @LadyRedWave: #Trump shakes EVERY leaders’ hand BUT #Trudeau -THAT’s what you get when you disrespect @POTUS like Trudeau THE li
ttle man…
```

This time around, this comment is the inverse of the previous finding. This adds to the idea that the code needs to be modified and one potential solution is to incorporate machine learning to learn more about what keywords represent accurate sentiments given certain contexts.

I was also surprised at the fact that there was a greater percentage that was positive rather than negative sentiments. I also plotted the result onto a bar chart to help visualize it better as seen below.

```
Positive tweets percentage: 27.848101265822784 %
Negative tweets percentage: 24.050632911392405 %
```



Reflection:

This process took me a long time and there were many errors on the way, especially when making changes to the code. Alterations would affect other aspects of my code which took a lot of the time. Along with that, thinking of a logical process in trying to attack this project also took some planning time. The accuracy of the sentiment analysis is lacking, but given more time, I think I could have improved it in some ways. Overall, it was a great experience to apply learnings from class to the context of real life.