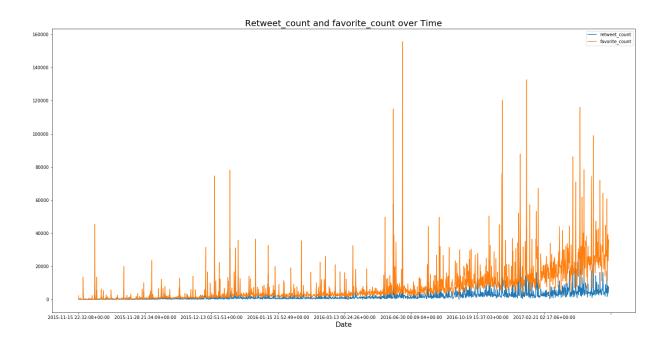
Act_Report

This report is to communicate the insights and displays visualizations produced from the master archive file created by merging and wrangling the three datasets (twitter archive, image predictions and twitter API).

1. how the retweet_count and favorite_count correlated over time?

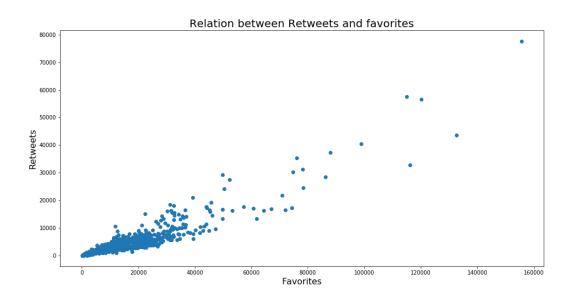


From the above chart we can see that favorites counted more than retweets over time, especially in the last few months where we can clearly see that there was jump in terms of favorites in comparison with retweet, where we can observe that there was a different between the two.

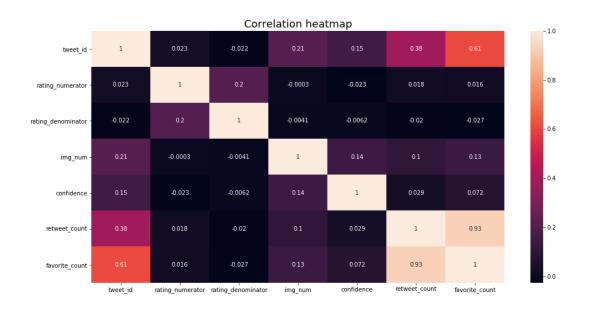
On the other side, we see that some tweets get a large number of likes between 2016-03-13 and 2016-06-30, but after October in 2016, we see that the number of likes get more and more large, and this maybe the cause of the quality of the tweets that gets more favorites.

2. Relation between Retweets and Favorites

The bellow plot shows that there is a linear relationship between retweets and favorites, that as the number of favorites increases the number of retweets increases as well, as shown above. But this does not mean that every retweet causes a heart(like), or that every like lead to a retweet. But as a global trend we can say that if a tweet liked more than another, it's more likely to receive more retweets.



3. Plot the correlation between retweets and favorites using heatmap



The above figure proves that we have a strong correlation between favorites and retweets, and that make our last comment on the relationship between retweets and favorites stronger.

The chart also shows that, there is a weak correlation between the rating_numerator and both of retweets and favorites. Which means that a higher rating numerating does not cause a high number of favorites or retweets.