

## Introduction

This article concentrates on analyzing tweet data of the Twitter account [@dog\\_rates](#), also known as [WeRateDogs](#). This account has more than 8.7 Million followers. (As of June 2, 2020) WeRateDogs is dedicated to rate people's dogs. The secrets behind popularity of WeRateDogs are, their ratings and funny comments they write about dogs they rate.



Figure i Profile of WeRateDogs.

In most cases, their ratings have a denominator of 10; but, the numerators almost always are greater than 10. You may be wondering how much funny their comments are, see Figure *ii* Sample tweet by WeRateDogs. below.

The dataset contains 1993 tweets between November 15, 2015 and August 1, 2017. Each record of a tweet contains rating, and breed of the dog in the tweet image. Additionally, information such as retweet and favorite counts also exist. These are highlighted in the figure above.



Figure ii Sample tweet by WeRateDogs.

Goal of this article is to communicate three interesting findings about WeRateDogs, based on their tweets. All of the following findings are based on statistical analysis.

### Analysis Results

In this project, three research questions were raised. Each of these questions are explained along with the analysis results found.

Are the Ratings on WeRateDogs More Positive, Negative, or Average?

From the collected tweets, it was observed that most of the ratings were between 7/10 and 14/10. What is interesting is that, the average rating is above 10. *Figure iii Distribution of rating scores.* shows that there are exceptionally few records with a rating below 6.5. However; the lowest **common** rating for a dog seems to be 7. The figure also indicates that around 75% of the ratings are equal to or greater than 10. Furthermore; in most of the cases the rating denominators are 10.

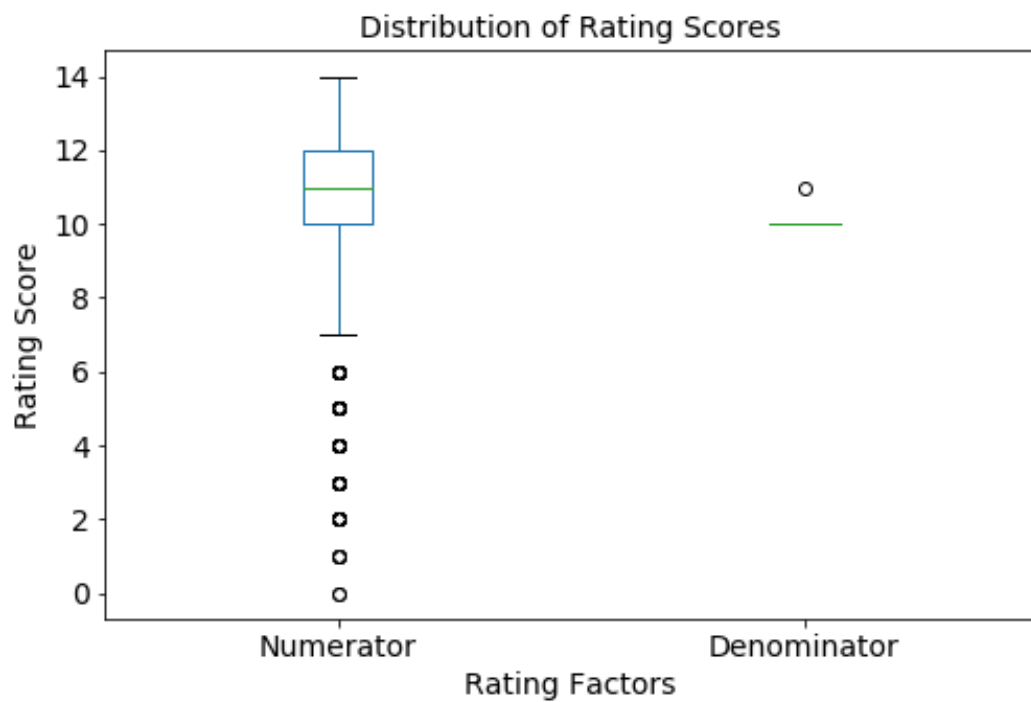


Figure iii Distribution of rating scores.

*Figure iv Frequency distribution of rating scores.* shows that the most frequent ratings are between 10 and 13 (accumulated towards the right). In fact, around 84% of the ratings are above 10. This indicates that, ratings of WeRateDogs are more of positive.

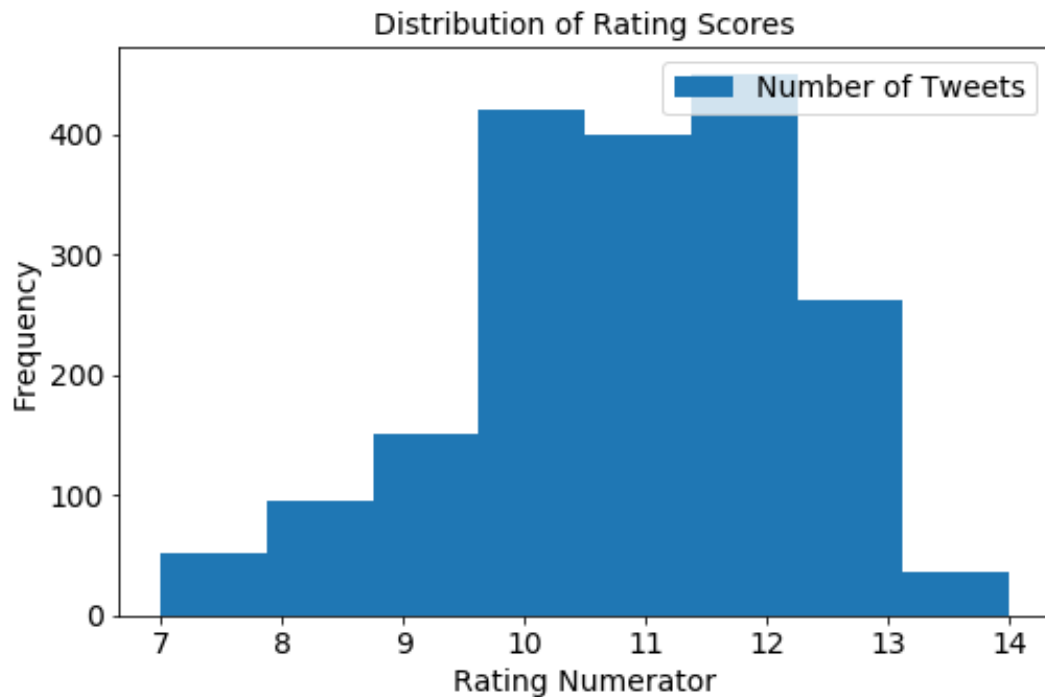


Figure iv Frequency distribution of rating scores.

Which Dog Breeds are the Most Popular on WeRateDogs?

We have seen that ratings of WeRateDogs are positive, but which dog breeds are the most popular? Tweets may not contain information about the breed of a dog in the tweet. Hence; dog's breed was predicted from its picture in the tweet. As a result of this, tweets with prediction confidence greater than 85% were filtered. (371 tweets satisfy this criterion) Having said that, popularity can be defined from two perspectives.

1. The *number of tweets* that are posted about a certain dog breed. The figure below shows that Golden Retriever is the most tweeted dog breed. Tweets about Golden Retriever take around 14% of the total tweets. Hence; from the number of tweets perspective, Golden Retriever is the most popular dog breed on WeRateDogs.

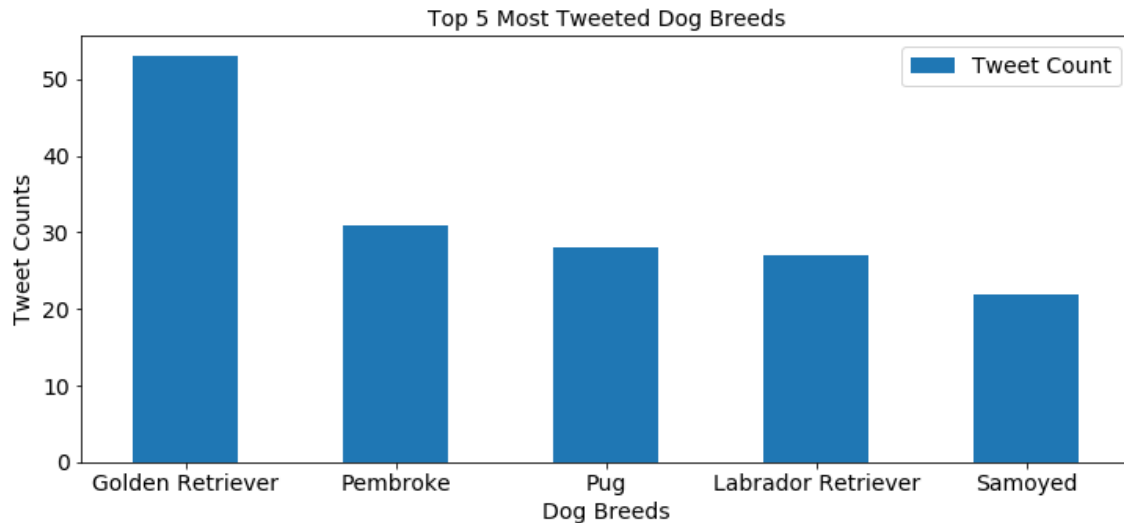


Figure v The most tweeted dog breeds.

2. The *number of likes* a certain dog breed in a tweet gets. It is important to note that, this metric of popularity can be biased by the content of the tweeted text. This is because some of the tweets posted by WeRateDogs are funny, and the number of likes for a tweet may not necessarily be because of the dog in the tweet. As shown in the figure below Golden Retrievers are still the most popular breeds when considering the number of likes each breed got. The total number of likes that Golden Retrievers got is around 18% of the total likes. Hence; when considering the number of likes tweets get, tweets about Golden Retrievers are the most popular on WeRateDogs.

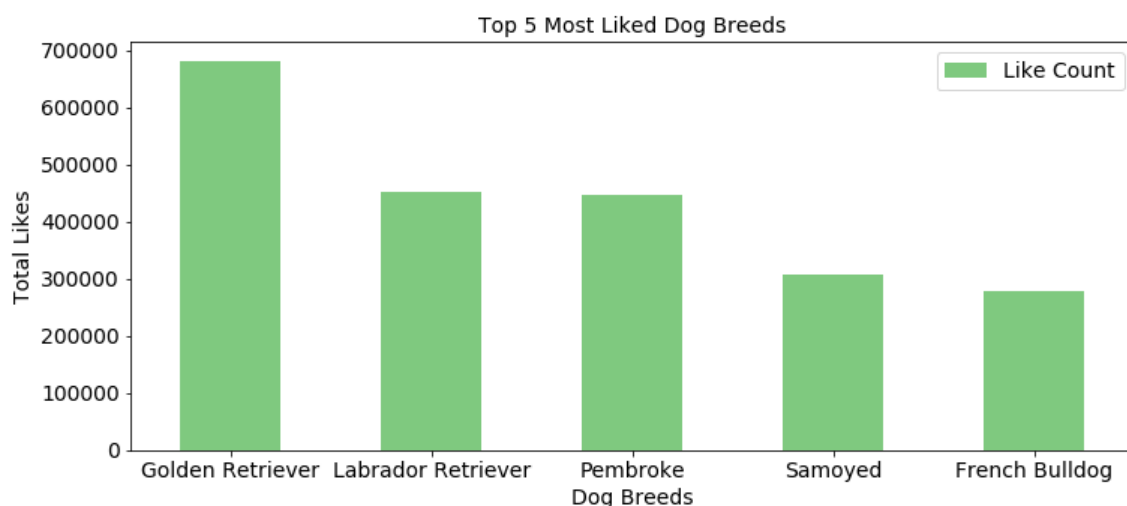


Figure vi The most liked dog breeds.

Are the above results not compelling? What if I told you that there were 71 different types of dog breeds in the data?

### Have the Ratings of WeRateDogs Been Consistent Through Time?

Besides being a positive rating platform, what does their ratings trend look like? This question is important because, it is important to know when this positive rating was started. If there is consistency in their ratings throughout the years, then they could be deliberately making their ratings positive. As the figure below shows, their ratings were continuously increasing throughout the years. Hence; the higher positive ratings do not seem random; rather, seem to be deliberate as there is consistency.

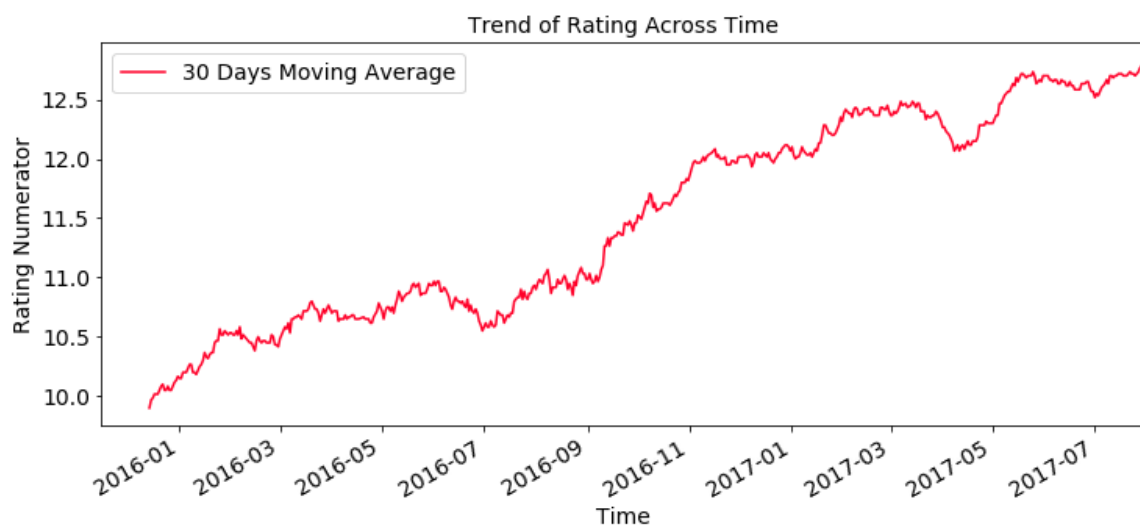


Figure vii Ratings through time.

### Conclusion

The above analysis results indicate, the secrets behind popularity of WeRateDogs. Their ratings, in most of the cases, were positive. Furthermore; the higher positive ratings seem deliberate. The other finding was about the most popular dog breed. Results show that Golden Retrievers are the most tweeted and liked dog breeds.