

Analyzing 2000 Tweets: WeRateDogs



Never underestimate the power of wet nose and a sloppy kiss on a bad day. ~Pinterest

This one is for all the dog lovers out there. This post studies the preferences of about 8.2 million followers of the twitter handle [WeRateDogs \(@dog_rates\)](#). WeRateDogs is a Twitter account that rates people's dogs with a humorous comment about the dog. It was started in 2015 by a college student Matt Nelson, and has received international media coverage since. For this post I used the data on about 2000 tweets provided by Udacity along with the data I downloaded using Twitter's API.

Onward with the analysis then!

The Data



[The homepage of WeRateDogs at https://twitter.com/dog_rates]

The data was gathered from three sources:

1. Enhanced Twitter Archive

text	rating_numerator	rating_denominator	name	doggo	floofer	pupper	puppo
This is Phineas. He's a mystical boy. Only ever appears in the hole of a donut. 13/10 https://t.co/MgUWQ76dJU	13	10	Phineas	None	None	None	None
This is Tilly. She's just checking pup on you. Hopes you're doing ok. If not, she's available for pats, snugs, boops, the whole bit. 13/10	13	10	Tilly	None	None	None	None
This is Archie. He is a rare Norwegian Pouncing Corgi. Lives in the tall grass. You never know when one may strike. 12/10 https://t.co/ID36da7qLQ	12	10	Archie	None	None	None	None
This is Darla. She commenced a snooze mid meal. 13/10 happens to the best of us https://t.co/ID36da7qLQ	13	10	Darla	None	None	None	None
This is Franklin. He would like you to stop calling him "cute." He is a very fierce shark and should be respected as such. 12/10 #BarkWeek	12	10	Franklin	None	None	None	None
Here we have a majestic great white breaching off South Africa's coast. Absolutely h*ckin breathtaking. 13/10 (IG: tucker_mario) #BarkWeek	13	10	None	None	None	None	None
Meet Jax. He enjoys ice cream so much he gets nervous around it. 13/10 help Jax enjoy more things by clicking below https://t.co/Zr4hWfAs1H https://t.co/tVJBRMnhxd	13	10	Jax	None	None	None	None
When you watch your owner call another dog a good boy but then they turn back to you and say you're a great boy. 13/10 https://t.co/hXvXk0UK	13	10	None	None	None	None	None
This is Zoey. She doesn't want to be one of the scary sharks. Just wants to be a snuggly pettable boatpet. 13/10 #BarkWeek https://t.co/ID36da7qLQ	13	10	Zoey	None	None	None	None
This is Cassie. She is a college pup. Studying international doggo communication and stick theory. 14/10 so elegant much sophisticated	14	10	Cassie	doggo	None	None	None
This is Koda. He is a South Australian deckshark. Deceptively deadly. Frighteningly majestic. 13/10 would risk a petting #BarkWeek hi	13	10	Koda	None	None	None	None
This is Bruno. He is a service shark. Only gets out of the water to assist you. 13/10 terrifyingly good boy https://t.co/u1XPQM29g	13	10	Bruno	None	None	None	None
Here's a puppo that seems to be on the fence about something haha no but seriously someone help her. 13/10 https://t.co/BxvXk0UK	13	10	None	None	None	None	puppo
This is Ted. He does his best. Sometimes that's not enough. But it's ok. 12/10 would assist https://t.co/f8dEDcrKSR	12	10	Ted	None	None	None	None
This is Stuart. He's sporting his favorite fanny pack. Secretly filled with bones only. 13/10 puppered puppo #BarkWeek https://t.co/coly70k	13	10	Stuart	None	None	None	puppo

This is an archive that contains basic tweet data of about 2300 tweets including *rating*, *dog name*, “*dog stage*” and the text of the tweet. This data was provided in Udacity’s Classroom.

2. Additional Data via Twitter API

	id	retweet_count	favorite_count
0	892420643555336193	8141	37445
1	892177421306343426	6031	32180
2	891815181378084864	3993	24265

Additional data including the *retweet count* and *favorite count* was gathered using the Twitter API. The data was downloaded programatically as a json file and later parsed into a Pandas Dataframe.

3. Image Predictions File

tweet_id	jpg_url	img_num	p1	p1_conf	p1_dog	p2	p2_conf	p2_dog	p3	p3_conf	p3_dog
892177421306343426	https://pbs.twimg.com	1	Chihuahua	0.323581	TRUE	Pekinese	0.0906465	TRUE	papillon	0.0689569	TRUE
891815181378084864	https://pbs.twimg.com	1	Chihuahua	0.716012	TRUE	malamute	0.078253	TRUE	kelpie	0.0313789	TRUE
891689557279858688	https://pbs.twimg.com	1	paper_towel	0.170278	FALSE	Labrador_retriever	0.168086	TRUE	spatula	0.0408359	FALSE
891327558926688256	https://pbs.twimg.com	2	basset	0.555712	TRUE	English_springer	0.22577	TRUE	German_short-haired_pointer	0.175219	TRUE
891087950875897856	https://pbs.twimg.com	1	Chesapeake_Bay_retriever	0.425595	TRUE	Irish_terrier	0.116317	TRUE	Indian_elephant	0.0769022	FALSE
890971913173991426	https://pbs.twimg.com	1	Appenzeller	0.341703	TRUE	Border_collie	0.199287	TRUE	ice_lolly	0.193548	FALSE
890729181411237888	https://pbs.twimg.com	2	Pomeranian	0.566142	TRUE	Eskimo_dog	0.178406	TRUE	Pembroke	0.0765069	TRUE
890609185150312448	https://pbs.twimg.com	1	Irish_terrier	0.487574	TRUE	Irish_setter	0.193054	TRUE	Chesapeake_Bay_retriever	0.118184	TRUE
890240255349198849	https://pbs.twimg.com	1	Pembroke	0.511319	TRUE	Cardigan	0.451038	TRUE	Chihuahua	0.0292482	TRUE
890006608113172480	https://pbs.twimg.com	1	Samoyed	0.957979	TRUE	Pomeranian	0.0138835	TRUE	chow	0.00816748	TRUE
889880896479866881	https://pbs.twimg.com	1	French_bulldog	0.377417	TRUE	Labrador_retriever	0.151317	TRUE	muzzle	0.0829811	FALSE
889665388333682689	https://pbs.twimg.com	1	Pembroke	0.966327	TRUE	Cardigan	0.0273557	TRUE	basenji	0.00463323	TRUE
889638837579907072	https://pbs.twimg.com	1	French_bulldog	0.99165	TRUE	boxer	0.00212864	TRUE	Staffordshire_bulldog	0.00149818	TRUE
889531135344209921	https://pbs.twimg.com	1	golden_retriever	0.953442	TRUE	Labrador_retriever	0.0138341	TRUE	redbone	0.00795775	TRUE

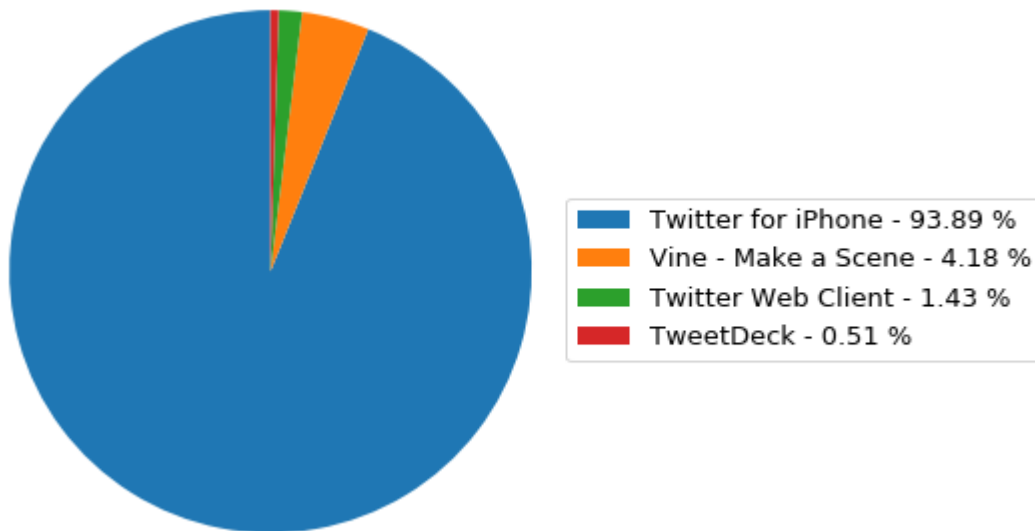
This file contains the predictions of a Neural Network classifying the image of a dog according to its breed. It was provided in Udacity's Classroom

The Analysis

The data procured initially had a number of Data Quality and Data Tidiness issues. Various tools in Python and Pandas were necessary to perform cleaning of the data to get it into a form that was viable to analyze. The code for the entire process can be found in an IPython Notebook [here](#).

It was found that a majority of the user base of WeRateDogs prefers to access the page using an iPhone. In fact, almost 94 % of the tweets made to the page came from an iPhone.

Relatively small percentages used platforms like Vine, Twitter Web, TweetDeck.



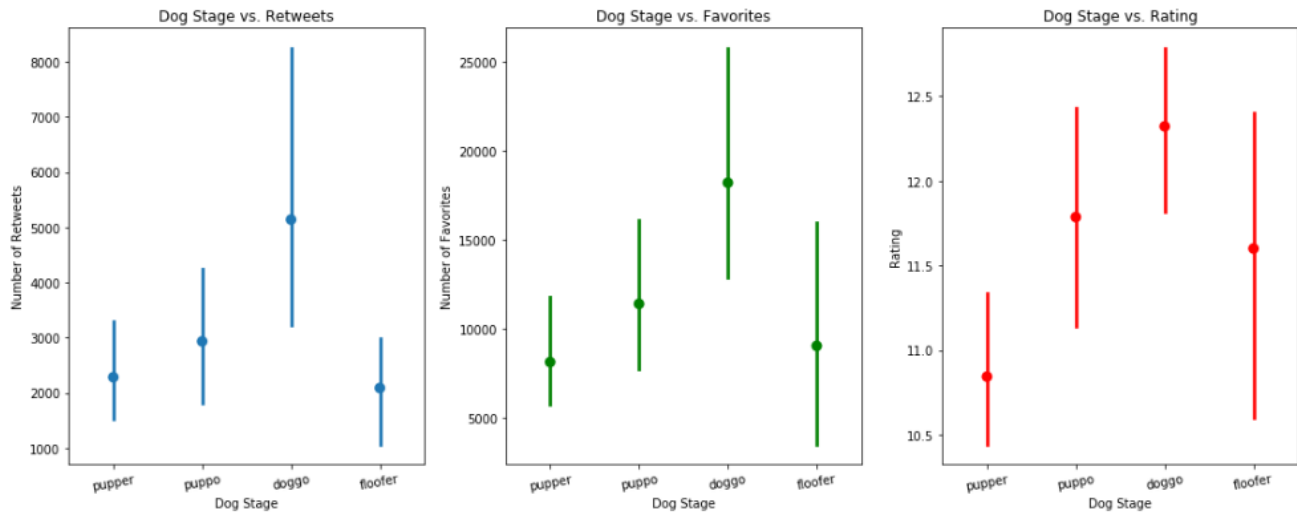
The page WeRateDogs likes to make use of certain “dog stages” to classify the dogs into categories according to their age or prominent characteristics.

The page makes use of a dictionary called “Dogtictionary” that explains the various stages of a dog as under:

- **pupper**: basically a puppy or “a small doggo”
- **puppo**: a dog that is in “a transitional phase between a pupper and doggo”
- **doggo**: a grown dog or “a puppo that has his life in order and understands taxes”
- **floofer**: a furry dog

I made visualizations to see whether the community active on WeRateDogs had any preferences when it came to dog stages. Does a particular dog stage receive consistently higher ratings than others and whether that stage is popular as supported by the number of retweets and favorites?

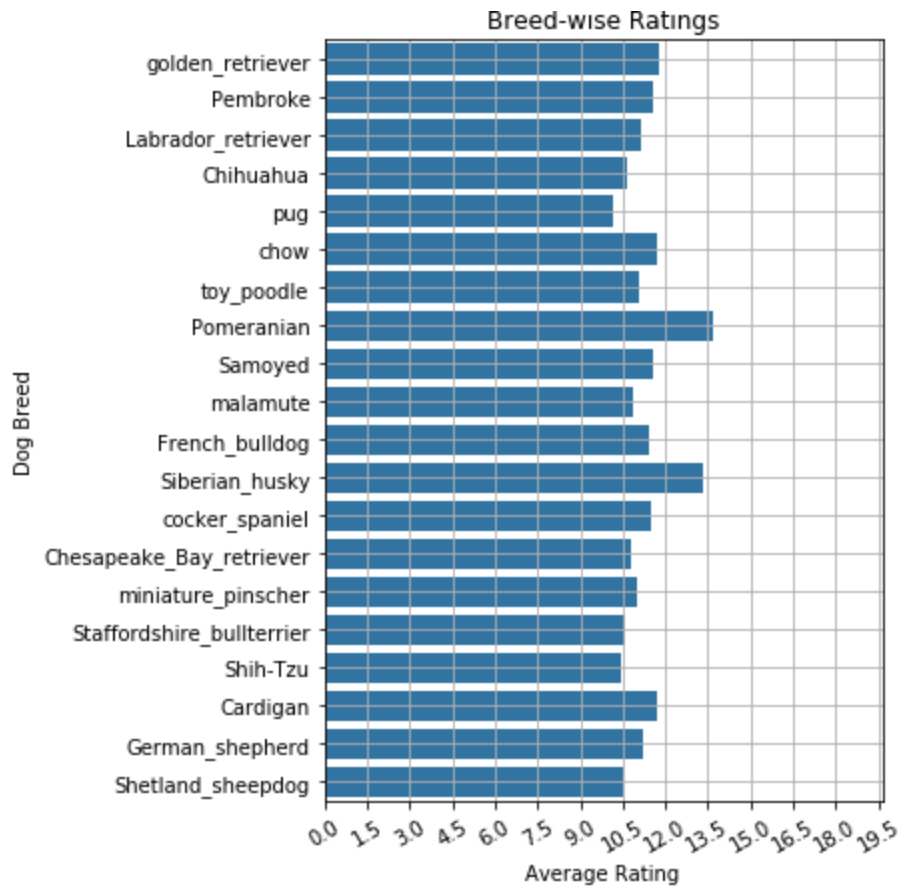
The answer:



It's easy to see that the dog stage **doggo** is the most liked as well as highly rated. The stage **floofer** seems to have received the least number of likes and retweets. However, it is noteworthy that the ratings received by **floofers** seem to be highly variable and generally higher than **puppers**. It is also clear (unsurprisingly) that the ratings, number of retweets and number of favorites, all correlate.

One more intriguing question that came to mind was whether particular breeds of dogs received higher ratings than others?

I took average ratings of the 20 most common breeds (as predicted by the neural net) and compared them to each other. I was under the assumption that Golden Retrievers would be the undisputed winners (partly because my neighbour has one), but quite surprisingly, that wasn't the case.



I found that it were the Pomeranians that received consistently high ratings. The runner up were Siberian Huskeys. To my dismay, Golden Retrievers came in third. ☹

Conclusion

From the tweets analyzed, its clear that there certainly are some preferences at WeRateDogs. I feel bad for the Pugs :P

But the massive follower base and daily activity on the page makes it undeniably clear that dogs are still man's best friend and will continue to be in this technology infused society.



Have a good day!