# act_report

December 17, 2018

## 1 Report after analyse

### 1.1 Question

In this project, we explore following problems after wrangle the data.

1. Which stage of dogs is most tweeted?
2. Which stage get most highest score?
3. Is there any relation between retweet_count and favorite_count?
4. Is there any relation between time and favorite_counts?
5. How many source of tweets? What platform is most popular?
6. Will follower become more with time past?

### 1.2 Explore

At first two questions, we focus on dog stage and related data, try to figure out which type of dog is most popular among people.

**Q1. Which stage of dogs is most tweeted?**

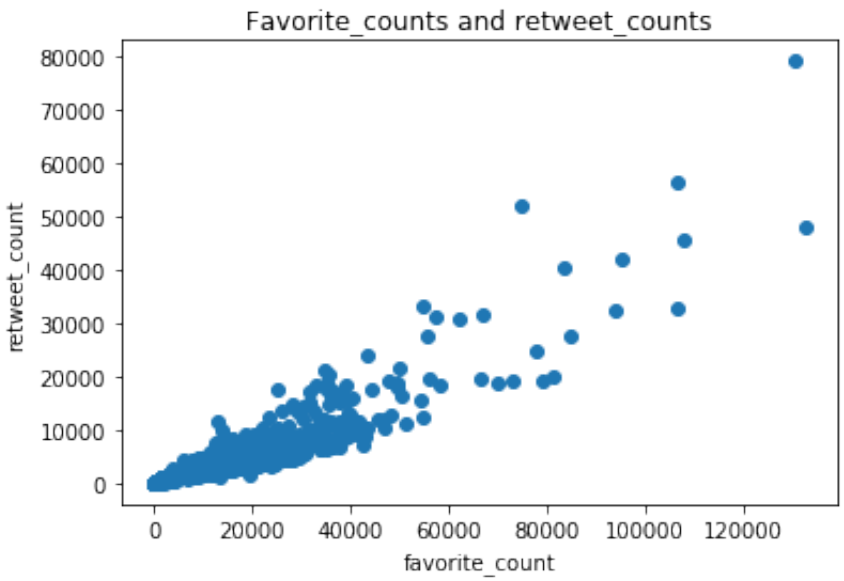
We use value_counts function to explore how many tweets are there about each stage of dogs, and it's shown as below:

| Stage | count |
|---|---|
| pupper | 211 |
| doggo | 70 |
| puppo | 23 |
| floofer | 7 |

We could easily tell from the table that pupper is the most tweeted stage of dogs.(We note there are large amount of data not labeled, which could try to use neural network label the data and use them in this analyse.)

**Q2. Which stage get most highest score?**

For this question, we take a look at statistic information of score each stage of dogs get, we have following table:




favorite-retweet

| stage | count | mean | std | min | 25% | 50% | 75% | max |
|---|---|---|---|---|---|---|---|---|
| doggo | 70.0 | 1.184268 | 0.142071 | 0.8 | 1.10 | 1.2 | 1.3 | 1.4 |
| floofer | 7.0 | 1.20000 | 0.115470 | 1.0 | 1.15 | 1.2 | 1.3 | 1.3 |
| pupper | 211.0 | 1.065531 | 0.175933 | 0.3 | 1.00 | 1.1 | 1.2 | 1.4 |
| puppo | 23.0 | 1.204348 | 0.129609 | 0.9 | 1.15 | 1.2 | 1.3 | 1.4 |

Since there's a unbalance between example number of four stage, we use basic statistic data, mean value, std value and qartile to describe the score. We can see that pupper have lowest score and highest score at same time, which isn't surprising since it's most tweeted. naturally, it has highest std value and lowest mean value. doggo is almost same situation as pupper. From the table, we could point out puppo may have highest score among four stages.

From data we have, people maybe willing to tweet their pupper on the internet, and more people love puppo, but consider great number of pupper examples, we could say it's also welcome on the Internet.

Next, we'll explore some data relates to tweet itself, other than it's content.

**Q3. Is there any relation between retweet_count and favorite_count?**

Like many people, we may curious about is there any connection betweet retweet_count and favorite_count? Normally we may think tweets get more favorite than retweet, since it's not convenience to retweet.

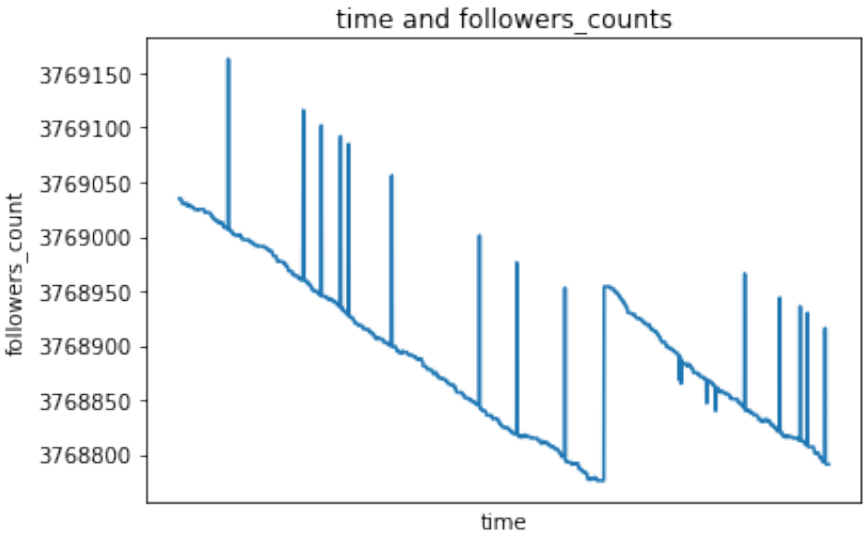
Basic on the data we have, I plot a scatter image:

From this image, we could tell that retweet count usually less than favorite count, which certify our guess. Also, this two variables have a positive correlation, more people favorite the tweet, more people retweet, obviously.

**Q4. Will follower become more as time past?**

Everyone wants more followers, so, will follower increase as time past? To understand this question, we plot this chart:

Sadly, followers don't increase as time past, on contrary, people even unfollow as time past.




time-follower

What could behind it? Maybe a user quit tweeter, maybe they just clean their follow list... Nevertheless, we could see some peaks on the plot, seems after a period of time, this account get more followers. At the same time, follower number fluctuate around 3,768,950 and difference between max and min is less than 2,000, which make sence.

**Q5. Is there any relation between time and favorite_counts?**

Now, what relation between time and favorite count? We plot two charts to answer this question. First, we plot a chart with whole time:

There's a positive correlation betweet these two variables, which is not very rigid, but this graphic inspire me with another question, will time you tweet affect favorite it gets? So, we have following graph:

We split a day into four periods, 23:00:00 - 6:00:00 as night, 6:00:00 - 13:00:00 as morning, 13:00:00 - 18:00:00 as afternoon and 18:00:00 - 23:00:00 as evening. We could observe that tweets tweeted in day get more favorites than those tweeted in night. So, if you'd like get more favourites, choose a good time, 6:00 to 13:00 maybe a nice choice since it gets highest favourite in this case.

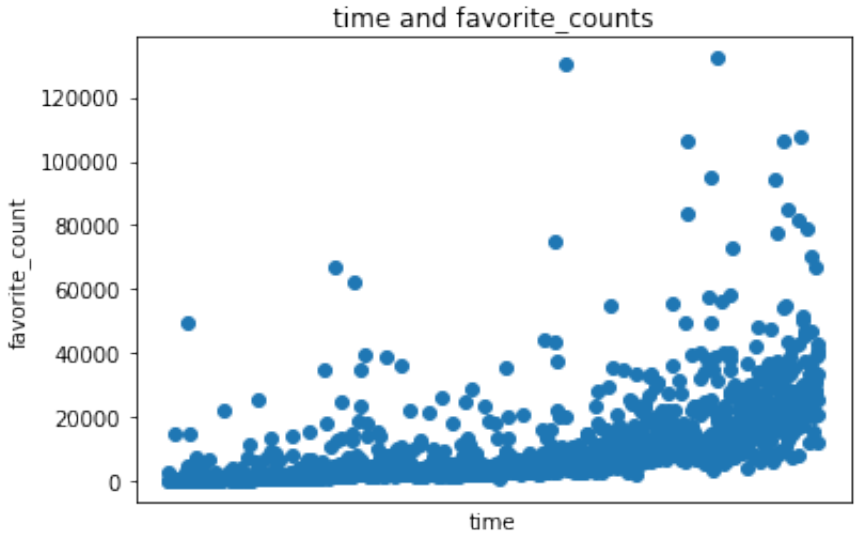
**How many source of tweets? What platform is most popular?**

Last but not least, we focus on the source of tweets. Which platform do they use often? Mobilephones, PCs, or some other kind of equipments? So we use value_count again and get the table below:

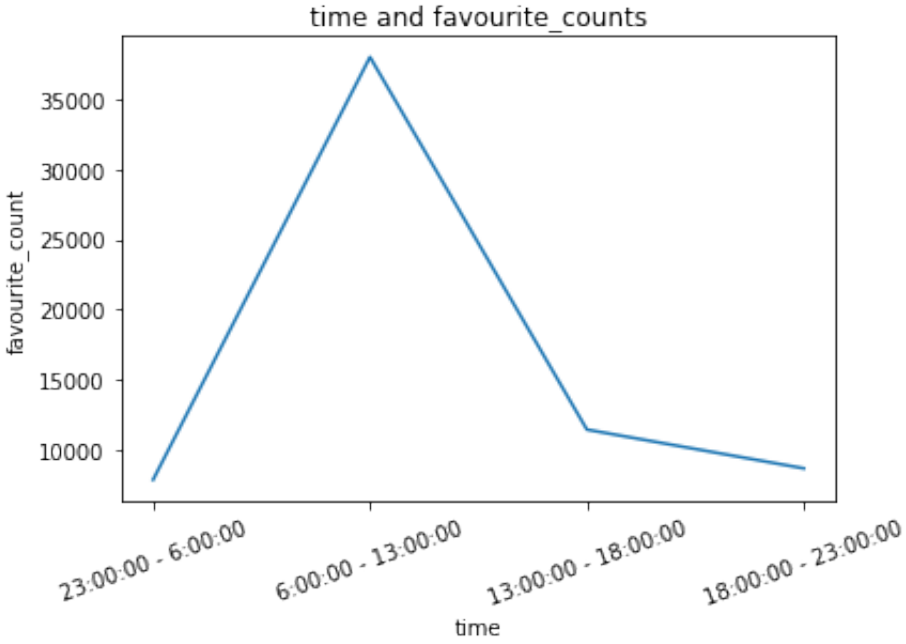
| Source | count |
|---|---|
| Twitter for iPhone | 2047 |
| Vine - Make a Scene | 92 |
| Twitter Web Client | 31 |
| TweetDeck | 11 |

No wonder that iPhone is the most used platform. Vine, which seems a website came as second position, following is twitter's web application, then their deck software, which only used 11 times.

Maybe tweet will pay more effort on iPhone or other mobile apps since it's most used to tweet, then they could improve their web application, as for deck, it seems not that important in this product system.




time-favorite




time-favorite-2