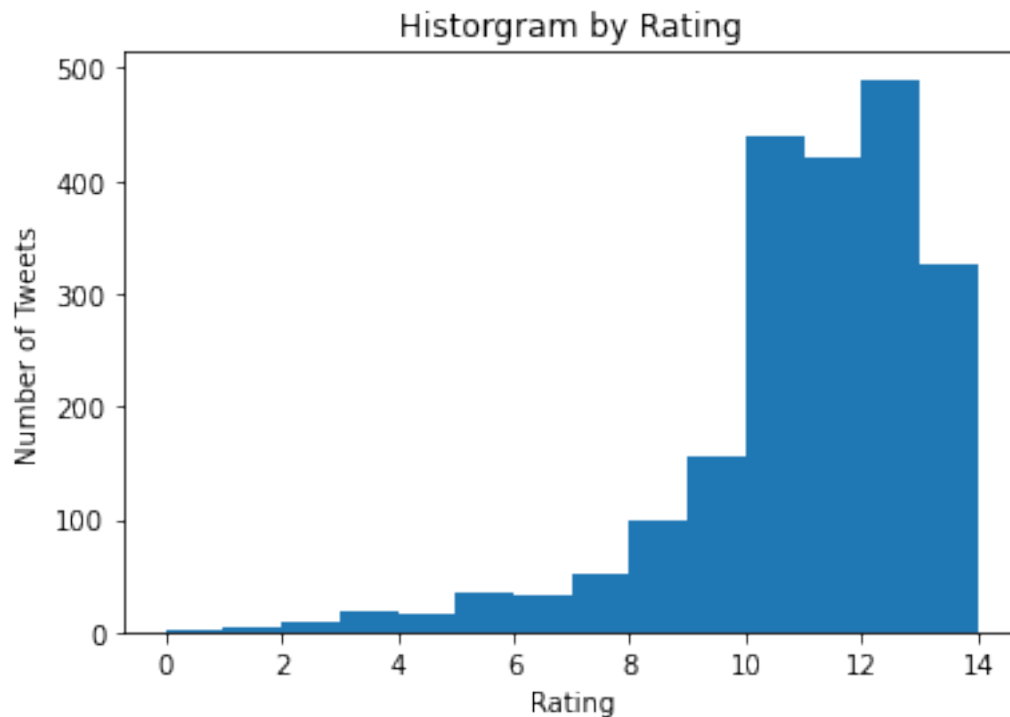


# act\_report

November 30, 2020

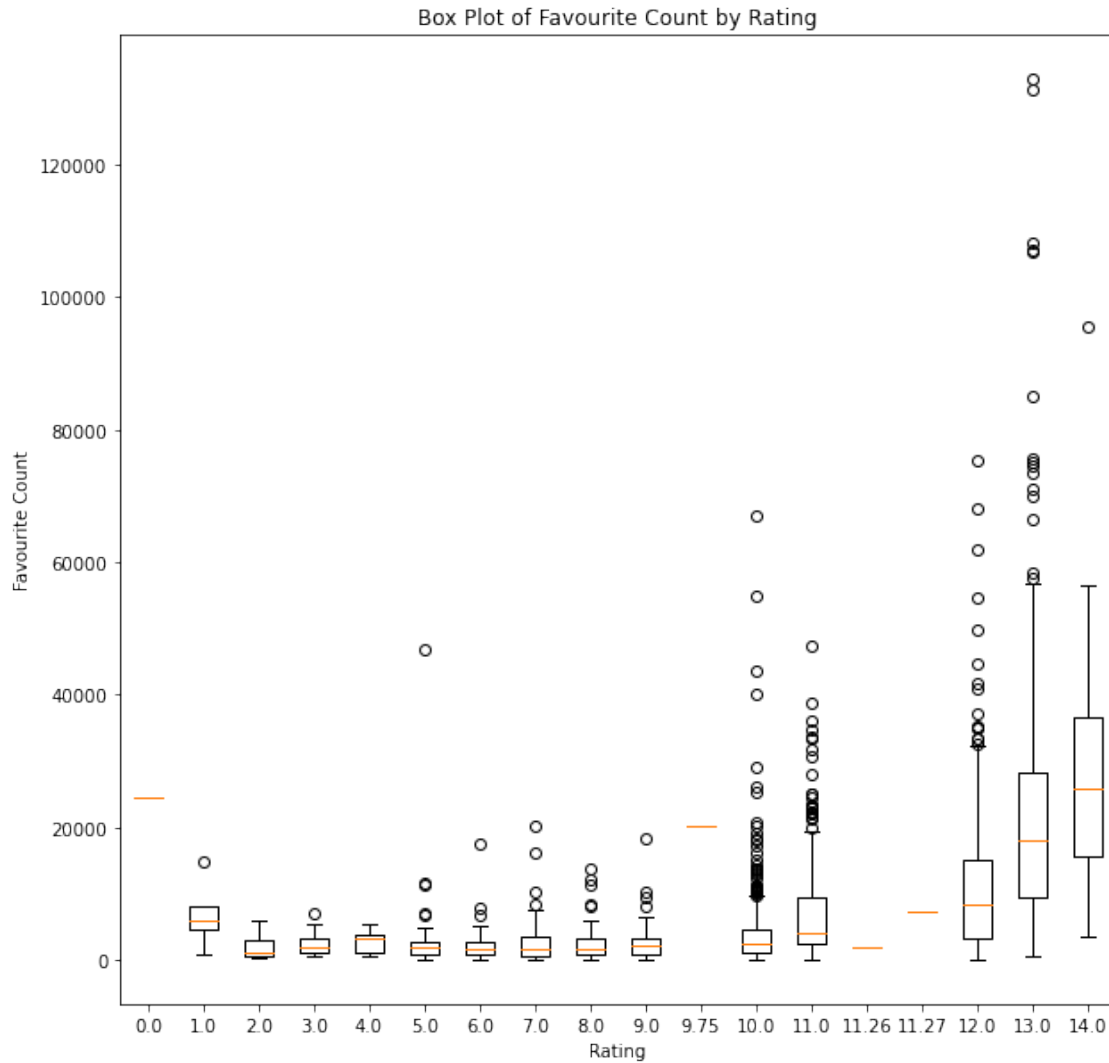
## 0.1 WeRateDogs Analysis

Here are some observations about the data for the WeRateDogs tweets based on the cleaned data. Let's look at how the ratings are distributed. We know the system is idiosyncratic, but let's see *how* idiosyncratic. Note we have removed the two highest ratings to make the chart legible.



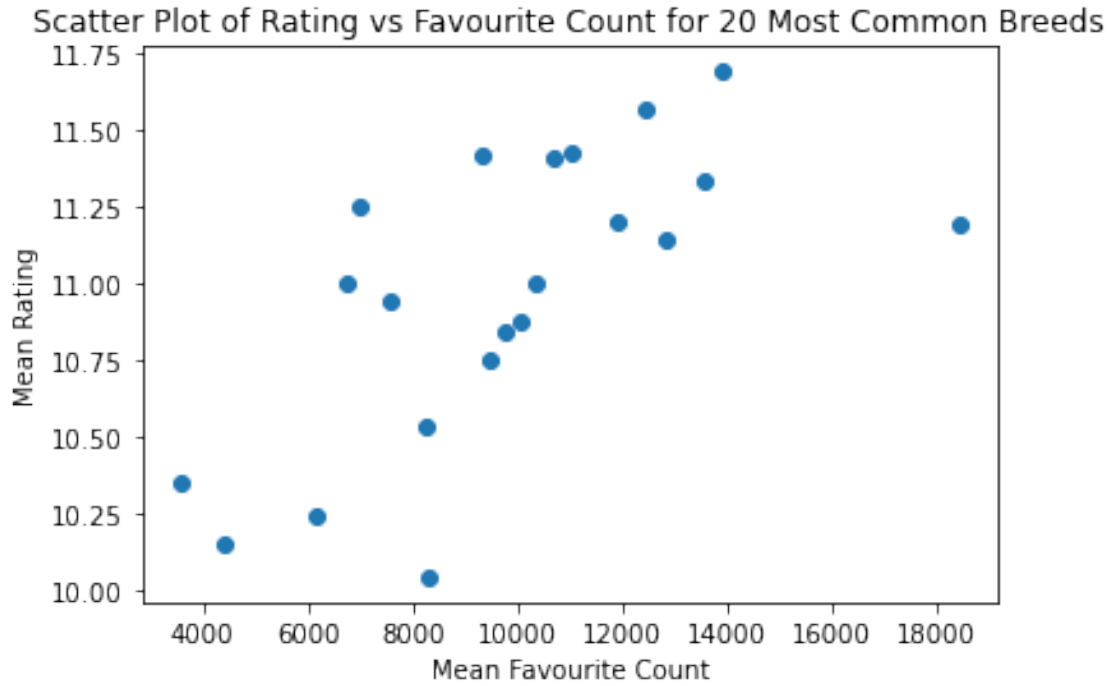
Above the boxes are half open so the point where the chart increases from c 150 to c 450 is the 10 bar. The last bar includes both 13 and 14. We can see that the vast majority of ratings are greater than 10 or greater. There is a tail of small ratings. This certainly doesn't look like the kind of rating distribution one might expect from someone committed to differentiating something on a scale of 0 to 10...

Now let's see whether there is any connection between the rating given to a dog and the favourite count.



The above box plots do seem to show a relationship between increasing scores and increasing favourite counts. The single orange lines are single point datasets so shouldn't be given much weight. Comfortably the highest mean favourite count is for the 14/10 ratings.

What about breeds? Are some more popular in terms of favourite count or rating (i.e. popular with both the account and the followers)? Let's restrict ourselves to those dogs with at least 20 pictures to try to avoid small sample outliers.



```
[26]: array([[1.          , 0.66582805],
            [0.66582805, 1.          ]])
```

We can see a clear trend here with, breed by breed, a 67% correlation between the mean rating and mean favourite count. There are many possible reasons for this of course. Perhaps followers look at ratings and are more likely to favourite the highly rated ones (particularly the unusually high 14 ratings), or perhaps both the account and the followers have the same taste in dogs.

Finally, let's see which are the most popular breeds in the chart above by sorting by mean favourite count.

```
[27]:
```

breed	favorite_count	count	mean	std	min
French Bulldog	31.0	18416.806452	21736.621477	341.0	
Samoyed	42.0	13902.523810	14551.126828	806.0	
Cocker Spaniel	30.0	13580.400000	17017.670683	300.0	
Cardigan	21.0	12840.190476	11375.119527	525.0	
Golden Retriever	156.0	12460.141026	12747.136209	198.0	
Labrador Retriever	106.0	11937.311321	16764.307131	318.0	
Pembroke	94.0	11051.031915	11800.307922	171.0	
Eskimo Dog	22.0	10686.545455	16335.656993	550.0	
German Shepherd	21.0	10355.666667	9108.792128	128.0	
Malamute	33.0	10086.636364	14093.315095	229.0	
Chesapeake Bay Retriever	31.0	9749.870968	14015.356225	170.0	

Staffordshire Bullterrier	20.0	9488.500000	9980.939648	436.0
Chow	48.0	9311.104167	10499.221818	448.0
Miniature Pinscher	24.0	8295.000000	9831.634625	111.0
Chihuahua	90.0	8263.211111	14243.348761	131.0
Pomeranian	41.0	7592.780488	10944.935051	400.0
Siberian Husky	20.0	6999.100000	6634.152640	658.0
Toy Poodle	50.0	6745.400000	8597.908889	262.0
Pug	62.0	6190.596774	8715.079916	121.0
Beagle	20.0	4407.950000	3911.873471	352.0
Shih-Tzu	20.0	3593.350000	4744.704930	265.0

	25%	50%	75%	max
breed				
French Bulldog	3572.50	9997.0	27120.50	106827.0
Samoyed	2826.50	7469.5	20888.75	54720.0
Cocker Spaniel	3201.75	9332.0	16027.25	75639.0
Cardigan	4531.00	8564.0	18423.00	37744.0
Golden Retriever	3600.50	8689.0	16578.75	85011.0
Labrador Retriever	2290.00	6227.0	16341.75	131075.0
Pembroke	3122.50	6554.0	15022.50	69871.0
Eskimo Dog	1864.50	3281.0	15324.00	75163.0
German Shepherd	6340.00	7592.0	14376.00	37198.0
Malamute	3015.00	6236.0	11065.00	75193.0
Chesapeake Bay Retriever	2074.50	4026.0	10744.00	71144.0
Staffordshire Bullterrier	2659.50	4307.5	15075.00	38074.0
Chow	3830.50	7005.0	9827.75	66437.0
Miniature Pinscher	1764.00	3783.0	10240.75	34948.0
Chihuahua	1227.00	2947.0	9811.75	107015.0
Pomeranian	2011.00	3134.0	7110.00	56848.0
Siberian Husky	2512.00	3636.0	9843.25	22185.0
Toy Poodle	1457.50	4267.0	8687.25	49720.0
Pug	1684.00	2639.0	5822.25	36689.0
Beagle	1112.25	3626.0	6107.00	14265.0
Shih-Tzu	1298.50	2716.5	3354.75	22073.0

The most favoured breed is the French Bulldog and the least favoured is the Shih-Tzu. The 25% quartile for the French Bulldog is above the 75% for the Shih-Tzu.