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# SOCIAL NETWORK ANALYSIS REPORT “AMBER HEARD”

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OVER 2018 IN TWITTER



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Amber Heard was exposed to social media attacks by BotNets, this report is simple analysis to present the facts and to support all social media victims.

Data used: it's data scrapped from twitter for all users tweeted in occasional event to support or attack amber and in this report, we are covering the analysis in 2018 for social attack (Tweets) against Amber Heard.

Analysis Team: We are group of three who had the passion to the case and the curiosity to investigate the data to verify & validate the facts.

Analysis Tool: We used python programming to wrangle & clean the data to make it applicable for appropriate visualization using python frameworks like seaborn, matplotlib, numpy, pandas.

Analysis Approaches: We Investigated the anomalies in data for the tweets, date of tweets, users, users creation dates and so on.

Finally, We want to invite anyone who needs the good use of data to reach us to support him or her wherever in the world

We're glad to help.....

Thanks

We will Start in 2018 with general statistics as follow:

- No. of tweets from users created in 2018 are... 3452
- No. of tweets from users created in rest years are... 33734
- No. of tweets in the same day of user creation in 2018 are... 331
- proportion of tweets from users created in 2018 is 9.3%
- the probability of tweets in the same day for all 2018 users 3.86%
- the probability of tweets within 14 days only for all 2018 users 12.17%
- No. of users created in 2018 is: 1658
- No. of proportion of users created in 2018 are :8.67%

Almost 1658 users created in 2018 (8.7% of total users tweeted in 2018) those fresh users tweeted (9.2%) from the whole tweets in 2018 (3.85%) of them tweeted in the same day From a general view to the data when sorting them in descending order many have tweeted after creation of the new user within few minutes only!

Estimation of no. of tweets from users created in all years

	usr_year	year_count
0	2006	1
1	2007	233
2	2008	1038
3	2009	5224
4	2010	3080
5	2011	3647
6	2012	3625
7	2013	2702
8	2014	3160
9	2015	3606
10	2016	3483
11	2017	3935
12	2018	3452

Figure. 1

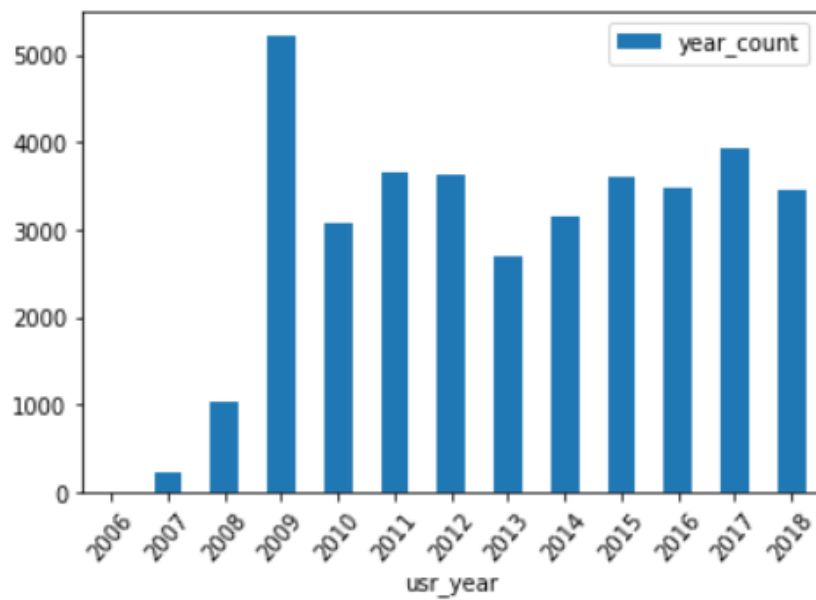


Chart. 1

As we can see in the graph above that the users created in 2018 aren't making a significant effect on 2018 tweets

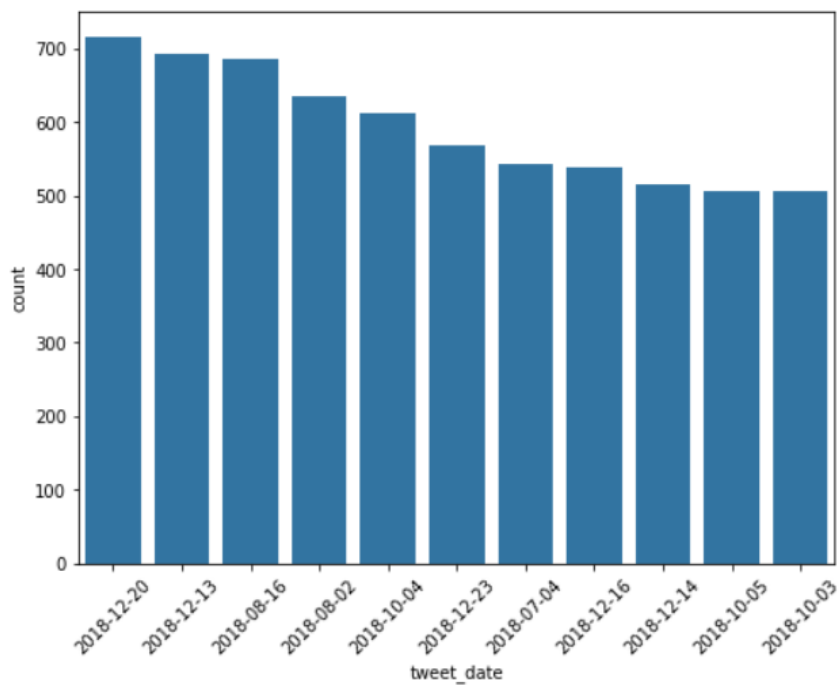


Chart. 2

Those are the trend dates of tweets count in 2018

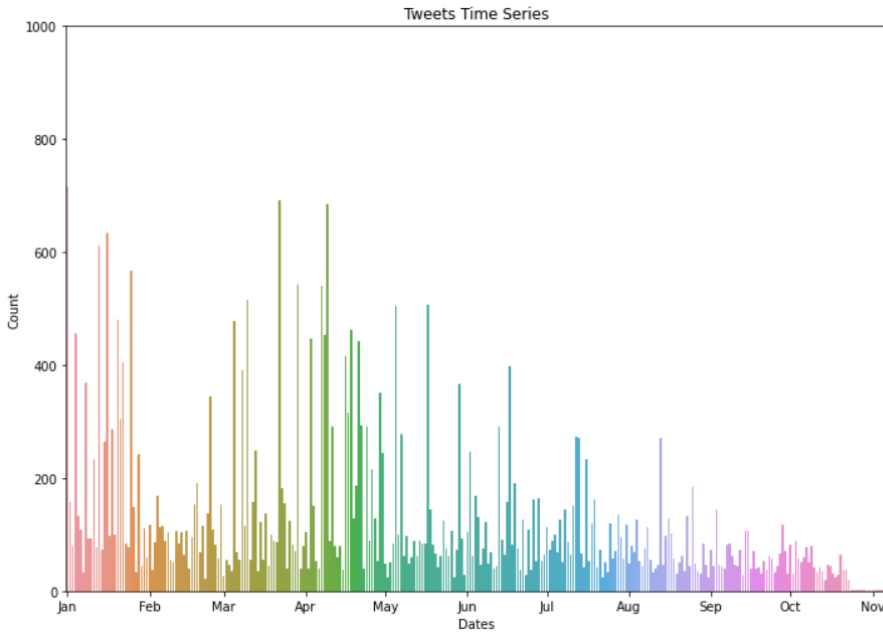


Chart. 3

This is a time series analysis over 2018 for the tweets counts as we can see above that January, April and may are the most obvious dates of rush tweet days.

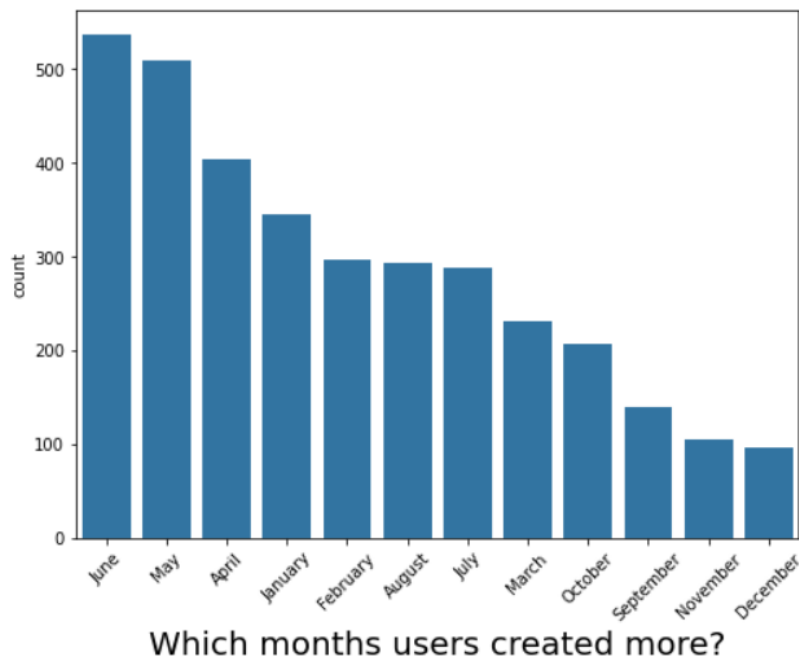


Chart. 4

This chart shows when the most of the users were created in 2018, June & May had the highest volume.

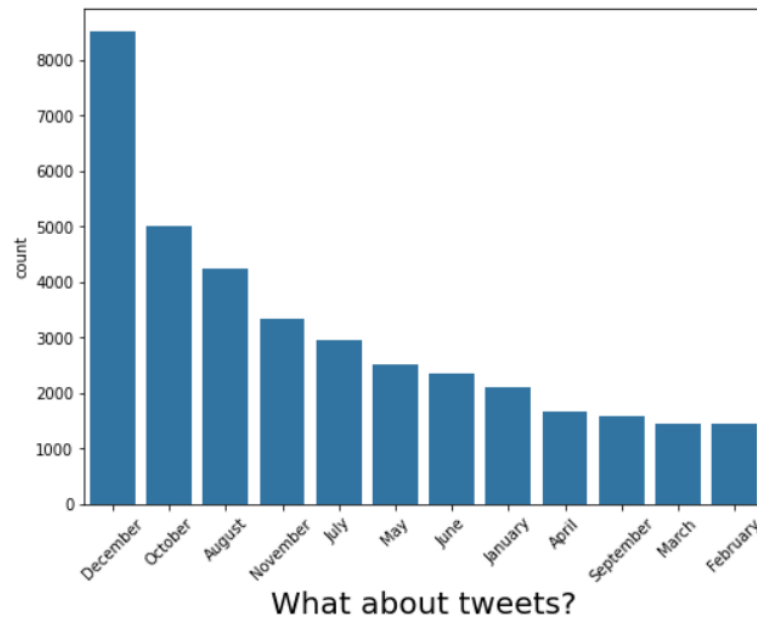


Chart. 5

In Chart. 5, The volume of tweets was the highest in December and there is no matching of the user creation as the largest users' creation happened, 6 months before that.

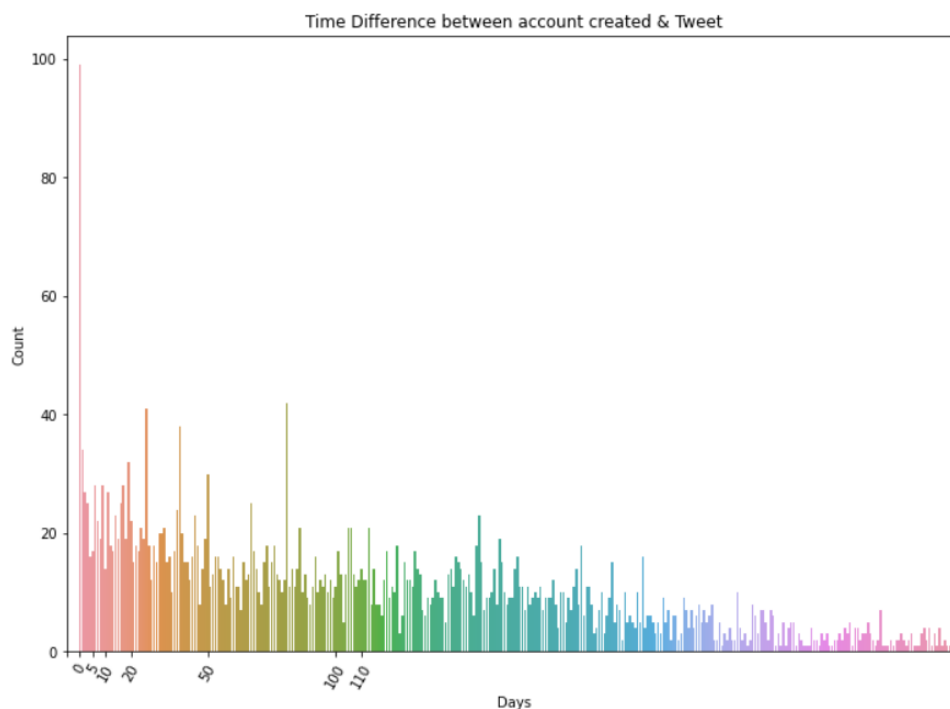


Chart. 6

The chart. 6 shows the behavior of the users created in 2018, it expresses the tweet counts for those users, as obvious, the users of 0-10 days on twitter had the highest tweet's count.

Fresh Users (Age 0 days on twitter) who tweet more than 3 tweets/ minute

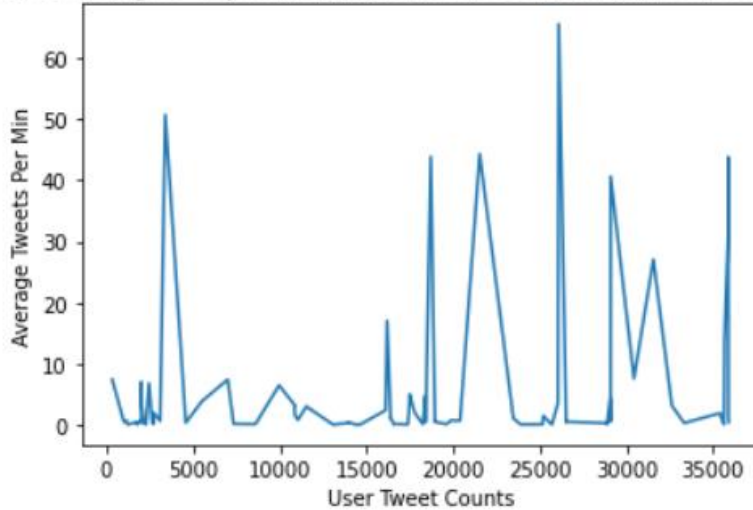


Chart. 7

As shown above, this is the average tweets per minute for users created in 2018 with **Zero Days Age on twitter**.

Fresh Users (Age 0 days on twitter) who tweet more than 3 tweets/ minute

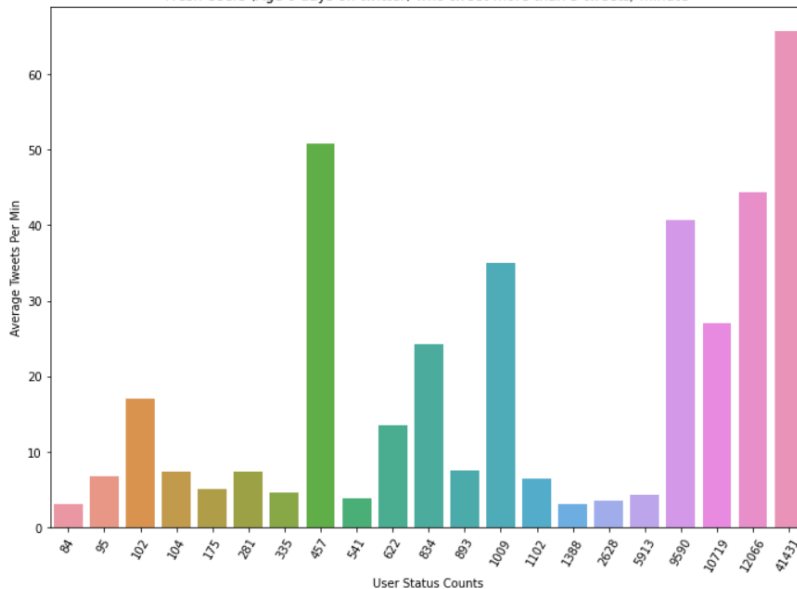


Chart. 8

All bars appeared in “Chart. 8” Represents the **Zero Days Age** users who tweeted more than or equal to “**THREE**” tweets per minute which is above the human average for tweeting per minute, for more clarification, it’s like that the user is tweeting or retweeting every **20 Seconds**.

**Moreover**, it’s pretty clear the there is some user made tweets rate beyond impossible as you can see, further, there user\_name is as follow:

standinthe_rain	GodEmperor99	AmberHeardSpain	johnnyd15482425
BaltazaZee	pheonixfeather8	pheonixfeather8	pheonixfeather8
teamdepp_	guest99254156	ahearddaily	mskarinacook
MerCleodora	RuessSophie	kiarahopkinss	jlsawards
clairdalunes	sociamediaa	1535Joyce	EveSalander
jokerofturkey	Accee66417542	shusreen	

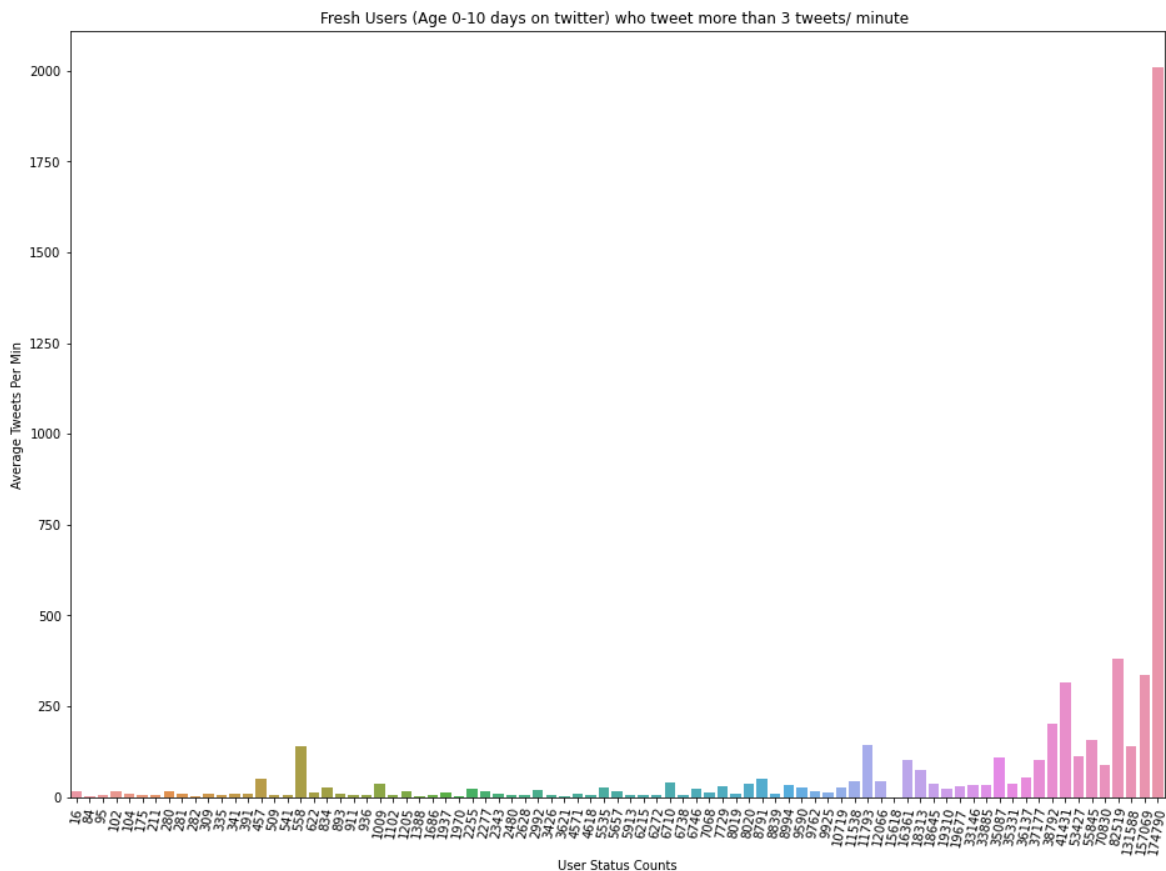


Chart. 9

“**Chart. 9**” Represents the **(0-10) Days Age “Fresh Users”** users who tweeted more than or equal to “**THREE**” tweets per minute which is above the human average for tweeting per minute, for more clarification, it’s like that the user is tweeting or retweeting every **20 Seconds**.

The Total Number of **fresh users** who made above 3 tweets / minute is **115**.



