

# BETA: BEyond Twitter Analytics

An app for small businesses, social media influencers, and politicians to dig deeper into their advertisement engagements and maximize follower-base growth.

[https://github.com/hmlewis-astro/twitter\\_insights](https://github.com/hmlewis-astro/twitter_insights)

**BETA** provides feedback about **what advertisement content** – text and sentiment, hashtags, URLs, and/or media – **most impacts a Twitter user's decision to engage with an ad**, follow, or even unfollow an account.

## Extracting Ads

Not all Tweets by a business are necessarily advertisements.

The app runs an **unsupervised clustering algorithm** on the continuous and categorical data **to extract ads**.

Clustering example shown for the popular WeRateDogs (@dog\_rates) Twitter. Tweets classified as ads (Cluster 5) tend to:

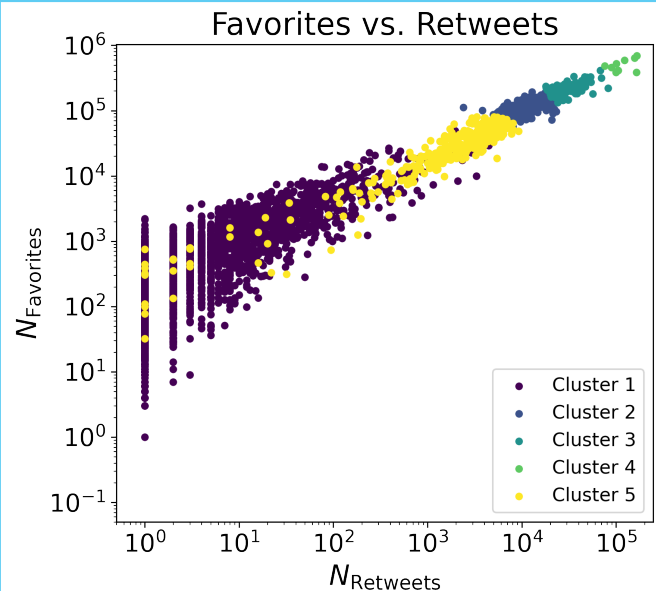
- receive fewer engagements than other Tweets,
- include #partner or other partner specific hashtags (e.g., #RoyalCanin), or
- include URLs to the business's website or other fundraising links.

## Outliers Inform Future Ads

Within the sample of advertisements, the app **searches for Tweets that are outliers** – those producing a **significant increase or decrease in the number of followers**.

The **app compiles a report of those ads**, including the hashtags, media, URLs, etc. most used among Tweets that caused significant gains or losses in followers, for the user **to better tailor future ads** for maximal follower growth.

For WeRateDogs, ads with large partners (e.g., Disney) lead to the most significant increases in followers, and ads revolving around social and political topics (e.g., racial issues or COVID-related material) result in a decrease in followers.



## Ongoing Work

- **Sentiment analysis** to understand changes in number of followers after Tweets perceived as strongly positive or negative
- **Web app** that will allow any user to upload their own Twitter archive

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