

Affect on Social Media

We are interested in predicting positive and negative affect on Twitter in English-speaking US citizens. We used monthly Twitter data from the U.S. (Jan 2017 – March 2020) to estimate affective language on social media. Twitter data was chosen because there are no other monthly sources of polling data for affect on social media over the required time period. Estimates for positive and negative affect were calculated by applying a custom lexicon (1) to message unigrams. The estimates provide the monthly sum of the pointwise mutual information of each unigram with positive and negative affect theme. The scores quantify the extent to which the monthly tweets contain language that is associated with positivity or negativity.

We standardized estimates based on all prior time series data ($M = 0.145$ / $SD = 0.0215$), maintaining difference between the groups. Here, unit of change reflects standard deviations above or below the average of all prior data (Jan 2017-March 2020) for both positive and negative affect language.

Reference:

(1) S. Kiritchenko, X. Zhu, S. M. Mohammad, Sentiment analysis of short informal texts. *J. Artif. Intell. Res.* 50, 723–762 (2014).