Background:

Communication is a key issue when it comes to spreading information or inspiring change. Climate change is one topic, where communication is particularly challenging, since there is scepticism, uncertainty and often non-immediate consequences. Therefore we would like to explore how people react to information with different emotions.

Question:

Can we observe different reaction patterns (measured by retweets) from twitter users to either a hopeful (positive) tweet or one that focuses on the negative impacts of climate change?

Procedure:

1. Make a list of climate activists / organizations / etc. that mainly twitter about climate related topics
2. Collection of the last 200 Tweets of these accounts
3. Pick randomly 100 tweets, label them regarding their relevance with regards to climate change to evaluate the cleanliness of the dataset. Tweets will be labeled by 2 people, so that our own opinions align.

3b. In case the cleanliness is not sufficient, searching tweets by keyword is considered as an alternative.

4. Analyze whether the tweets belong to the “positive” or “negative” group. Our plan is to use an unsupervised sentiment analysis technique, such as VADER or the “nrc” library. (Depending on the quality of the results we would also take supervised models into account and train them using hand-labeled data)
5. Account for the popularity of the accounts by using a regression model (inspired by exercise 3 from the course). Explore the correlation coefficient of retweet number and followers, when high enough, normalize the retweet numbers with the follower number.
6. Final analysis of the results.

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