weather_sentiment

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Topic

Idea: Our main idea focuses around the relationship between weather and sentiment (i.e. showing that positive weather has a positive, partial effect on emotion as proxied by sentiment in text.

Sample hypothesis/topics Include:

- People are more sensitive to relative changes in weather than to absolute changes (i.e. 60 degrees in Chicago is different than 60 degrees in San Diego)
- Impact of seasonality and weather changes (i.e. are people more impressionable during changes in the season)
- Implications of global warming on sentiment? What are the predicted effects as the sunbelt, cities, and coasts grow warmer, while northern midwest grows colder?
- Does snow have different effect than rain on sentiment? Does rain have different effect than hail on sentiment?
- Do hurricanes or other large storms or events influence sentiment of non-weather related tweets?

Data

Weather Data:
https://www.apixu.com/ → Will need access to the API
https://www.mapbox.com/
https://www.wunderground.com/history/
https://www.ncdc.noaa.gov/data-access/quick-links

Text Data:
Twitter JSON (min of 150 MB, but hopefully could find larger files)

Maybe: https://archive.org/search.php?query=collection%3Atwitterstream&sort=-publicdate

Methodology

Merging location of tweet/text and geospatial location and estimate of weather at that time. Predictive modeling as to the partial effect of weather and weather changes on sentiment. A simple version of this would be regression-style analysis, but we are excited to experiment with more advanced machine learning techniques.