Sentiment Analysis on #SeditionHunter

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• **Definition**: What is your project about? Clearly define the research problem/question.

The project is to study the twitter community Sedition hunter. This community is centered around the hashtag #seditionhunter which emerged immediately after the Capitol attack happened during the last presidential election. This community is notable for their direct contributions to several rioters arrests. And it remains active for almost a year by now.

Given many text analysis tools, we propose to focus on sentiment analysis. Identifies and extracts subjective information within the community and tries to understand the social sentiment. When members are contributing to the investigation, do they have strong sentiments against the rioters? If so, what are they, and do they change over time? With these sentiments, we want to establish the reliability and validity of the sedition hunter group, and increase the confidence that the group is more objective and not overtly emotional.

 Motivation: Why is this an interesting question to ask and why would we care about the answer to this question or a solution to the problem?

The community stays active for a relatively long time now, not only do they have many participants, the target scale is unprecedented as well, compared to ordinary cases where the number of target suspects is small(only one suspect in many cases). Also, as anyone on twitter can contribute, can they keep a relatively professional tone? This is the main reason we propose a sentiment analysis on this community.

• **Related work**: Provide a brief (not exhaustive) list of related work, and what is the novelty and key differences with previous work.

This <u>paper</u> provides TrollHunter2020, an application for trolling narratives on Twitter at the time of 2020 U.S. presidential election using real-time detection mechanism.

This paper does semantic analysis of economic texts.

This <u>paper</u> uses ML techniques for sentiment analysis.

Key difference would be the data used - we're going to analyse the tweets and their replies of the #SeditionHunters group. What's interesting about this group is their scale. Not only do we have thousands of participants collaborating, the number of targets are numerous as well.

- Plan: You can start thinking of how you will implement your project. This
 space is useful in terms of including a rough sketch of your proposed
 methods, as well as the evaluation framework, i.e., how do you plan to
 demonstrate that your solution is good or reasonable.
 - Extract tweets
 - Pre processing of tweets
 - Sentiment analysis
 - Revise our methods/feedback incorporation
 - Conclusion of work, Result Analysis.
 - Report/Paper
- **Timeline**: Create a tentative timeline, e.g., list a couple of milestones if possible. Good time management is crucial for understanding what is feasible given the time constraints
 - Milestone 1 : Use Twitter research API for Data collection & pre-processing [October 25, 2021]
 - Milestone 2 : Run the analysis model on data collected [November 10, 2021]
 - Milestone 3 : Revise our methods and features for possible improvements [November 15, 2021]
 - Milestone 4 : Result analysis [November 20, 2021]
 - Milestone 5: Create Report/Paper & Presentation [November 30, 2021]