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Summary

The paper “Clustering Depressed and Anti-Depressed keywords Based on a Twitter Event of Srilanka Bomb Blasts using text mining methods”, the authors of the paper seek to analyze the sentiments of tweets collected during the, and physically proximate to, the bombing attacks in Sri Lanka on April 21st, 2019. The researchers collected tweets with hashtags referring to “bomb” or other words describing the tweeter’s emotional state. This type of analysis could have impact on calibrating social and medical policy in regards to public mental health and public disasters.

The report begins by defining a few key terms: “depressive”, “tweets”, and various other related terms. The presence of some key words indicate depressive, whereas some other words contraindicate the depressive tweets. The depressive keywords were “#depress, #failure, #hopeless, #nervous, #restless, #tired, #worthless”, and their antonym keywords were “#active, #calm, #comfort, #delight, #excite, #hopeful, #peaceful”. Finally tweets with the hashtag “#bomb” were collected as well. The tweets dated during the period of the bombing attacks and geographically encompassed all of Sri Lanka. These tweets were compared with tweets from May of that year.

Examining the data from those tweets, the studies authors found that tweets with depressive characteristics strongly correlated with the tweets about the bombing. In addition the study found two clustering sets that a tweet was likely to be a part of. The first was “Failure, Nervous, Comfort, Delight, and Peaceful”, and the second was “Depress, Hopeless, Restless, Tired, Worthless, Active, Calm, Excite, Hopeful”.

Critique

The papers contained convincing data analysis that clearly showed trends in the emotional state of twitter users. I agree with the study’s authors that this is a vital issue to study, mental health and its relationship with social media, and the results of the study are promising in showing the use of twitter to track the sentiments of twitter users. The similarity set results are interesting, especially that it appears that words like “Failure” are associated with “Comfort” and “Delight”. I would have liked the paper expanded to have expanded on this apparent contradiction. This paper presents strong ideas of how such analysis could have socio-medical and clear arguments that such interventions could maintain public mental health. As a reader, I wished the paper went in to more detail in regards to what specific health interventions the authors were proposing just so I could have a concrete idea of what could be done.

Synthesis

The authors propose that Twitter and other micro-blogging develop mechanisms to capture users’ tweets and if perhaps implement some sort of socio-medical aids. The authors also propose using different statistical methods to glean new insights. My proposal is the use of powerful tools like Sentiment Analysis algorithms to collect a wider set of insights. Such tools would allow researchers not to limit themselves to only tweets but also other forms of social media and have a broader set of data and thus get richer conclusions.

Paper Bibliography Information

1. S. T. Sadasivuni and Y. Zhang, "Clustering Depressed and Anti-Depressed keywords Based on a Twitter Event of Srilanka Bomb Blasts using text mining methods," 2020 IEEE International Conference on Humanized Computing and Communication with Artificial Intelligence (HCCAI), Irvine, CA, USA, 2020, pp. 51-54, doi: 10.1109/HCCAI49649.2020.00014.