Project Number: 8

Project Title: System for finding key events or users in sentiment changes at macro or micro levels on social media

Project Clients: Daniel Kienast & Jiaojiao Jiang

Project specializations: Software Development;Computer Science and Algorithms;Big data Analytics and Visualization;Artificial Intelligence (Machine/Deep Learning, NLP);Web Application Development;

Number of groups: 3 groups

Main contact: Daniel Kienast & Jiaojiao Jiang

Background:

Current research for hate speech, extremist and other detection methods look at the individual post data. Not much research has been found at the use of whole user classification in this field. But something that comes from this is the ability to find what key events or users are the catalyst for this change in sentiment. Such events could be seen with the use of a hashtag a word or words. It would be helpful for researchers to be able to find out which events or users have become the catalyst for a change in sentiment or discourse. This should be

Requirements and Scope:

The scope of the project is to create software that can find these events in a social media dataset. This dataset can either be obtain by the students or a dataset can be provided. Sentiment analysis should be run on the data to find out the sentiment (can either be positive,negative or more such as positive, neutral, negative, extremists) of each post, so one can see any changes in sentiment. And look at the use of a hashtag/etc over time, then use a system to find its spread and rise through a network. After this a interface is need to see the results of the software in a visual easy to understand system. This should also allow for some customization such as given it a custom time range to search for. Or see in how many events a user is linked to.

Required Knowledge and skills:

System that can find these users or events

If they went with the NLP option then by how much did this event change the sentiment of a group and each user

A website or other visual display where one can search through all catalysts, and be able to change some parameters such as the time range to search for.

Expected outcomes/deliverables:

Source code

Guide on how to use it

Any interesting findings