2020 U.S. Twitter Analysis: A Knowledge Extraction of Events and Public Influence

In the age of social media, Twitter is a medium for the everyday person to not only voice their opinion on large topics, but also connect with and influence thousands as a result. In 2020, a year of elections, lockdowns, and vast difference of opinions, Twitter was ranked 4th in the world for engagement as external influence through social media resulted in historical events that weren’t all positive. In this research we utilize Machine Learning and Data Science techniques to analyze tweets throughout the year and visualize their correlation with large events and public reception. The project emphasizes the use of algorithms for the purpose of finding what influences people; whether that is classifying harmful bots that spread misinformation or analyzing text sentiment to quantify the attitude of users. The research is currently in progress, but preliminary results suggest a strong polarization of opinions throughout the year, as well as an increase in misinformation spreading twitter bots. Our goal is to use this research to warn about the harmful influence of social media in polarizing people’s opinions on political topics.