

Social Media Macroscope Case Study

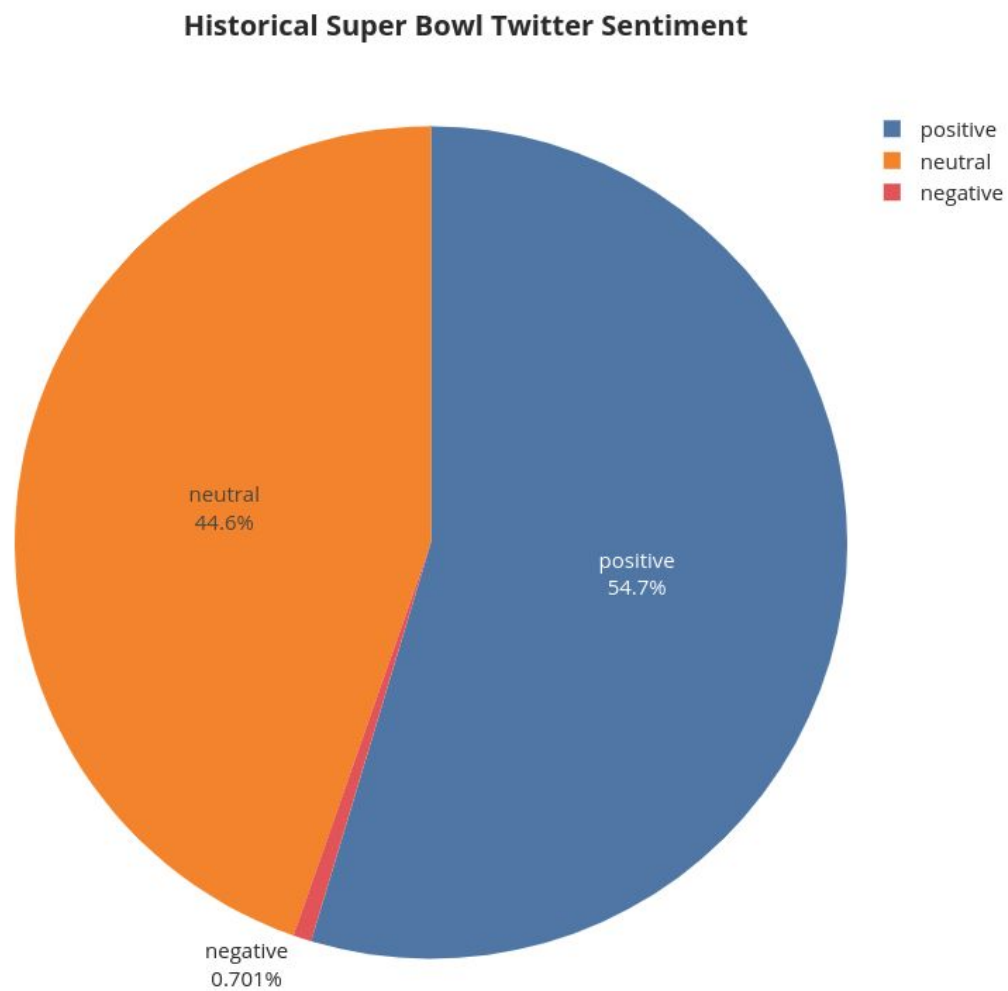
Super Bowl Sentiment Analysis

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The Social Media Macroscope is a project developed by the University of Illinois Technology Services and the National Center for Supercomputing Applications (NCSA) that makes social media analytics and visualization tools readily available for students and researchers alike. The aim of the Social Media Macroscope is to quickly and efficiently gather social media data and generate insightful visualizations. Currently, users have access to the Social Media Intelligence & Learning Environment (SMILE). This is a tool that can sync with a user's Twitter, Reddit, and Crimson Hexagon account to easily gather thousands of posts at the press of a button. Using this data, SMILE let's a user perform Pre-Processing, Phrase Mining, Text Classification, Sentiment Analysis, and Network Analysis.

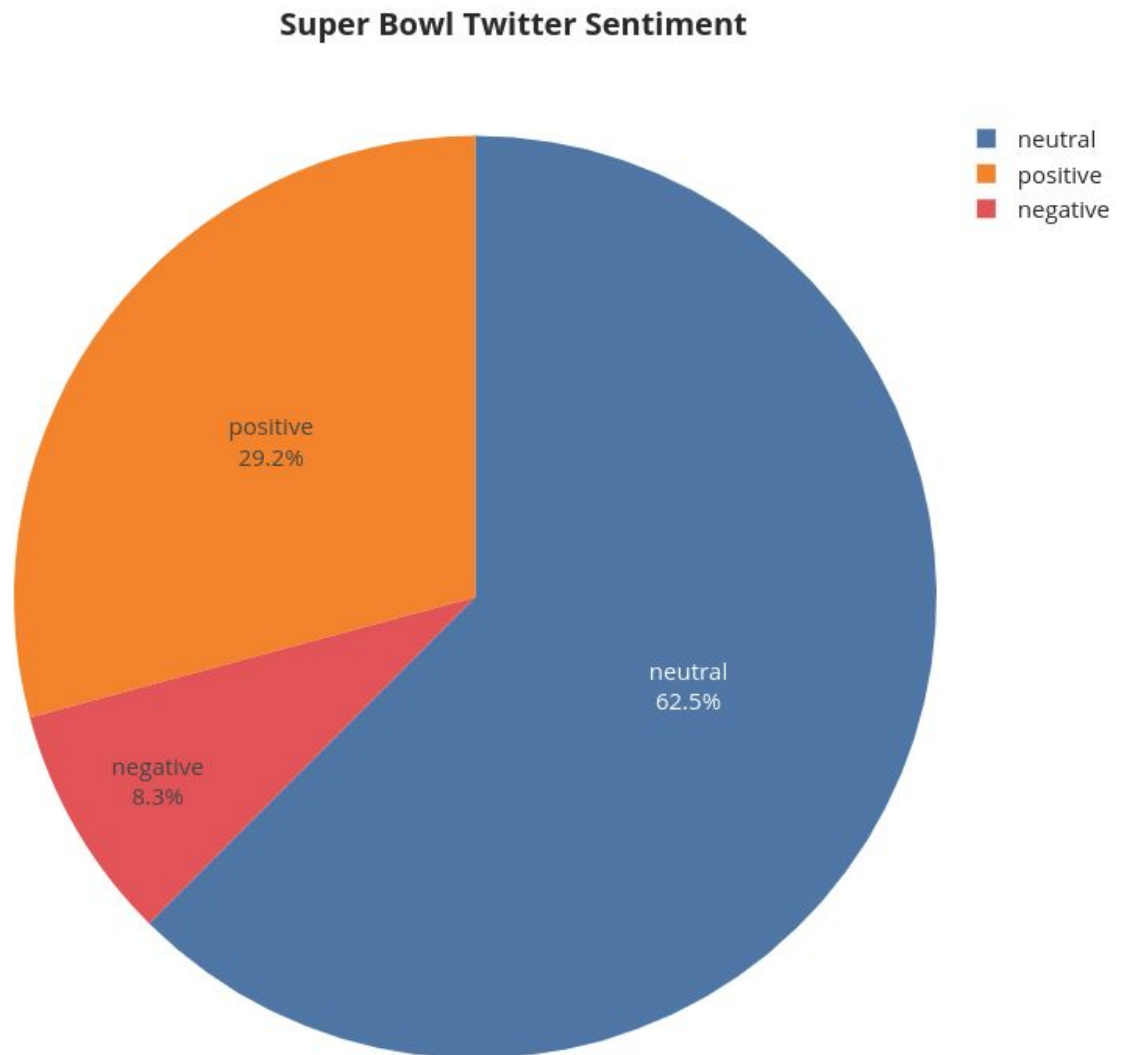
In order to illustrate a use case of SMILE, I analyzed twitter data related to various aspects of the Super Bowl played between the Rams and the Patriots. The Super Bowl is an event that has a huge impact on social media because everyone around the country is sharing their opinions surrounding the game. With the addition of a special halftime show and a reputation for having really entertaining commercial breaks, the Super Bowl has transcended football and has turned into a nationally recognized event. Unfortunately, this year's game was one to forget, the Patriots ended up winning the game 13-3 and there were rarely any exciting moments in the game. By using the sentiment analysis tool in SMILE, we can clearly show that many people felt this way.

SMILE uses an open source sentiment analysis tool known as VADER (Valence Aware Dictionary and sEntiment Reasoner) in order to classify the social media data. According to the figures shown below, historically, the Super Bowl is a very satisfying event to observe. More than half of all tweets relating to previous super bowls are classified as “positive”.



However, the overall reactions to the Super Bowl this year were much more negative. The lack of scoring, a subpar halftime show, and some mediocre commercials prompted many people to voice their negative opinions. While most of the tweets about this year’s game were

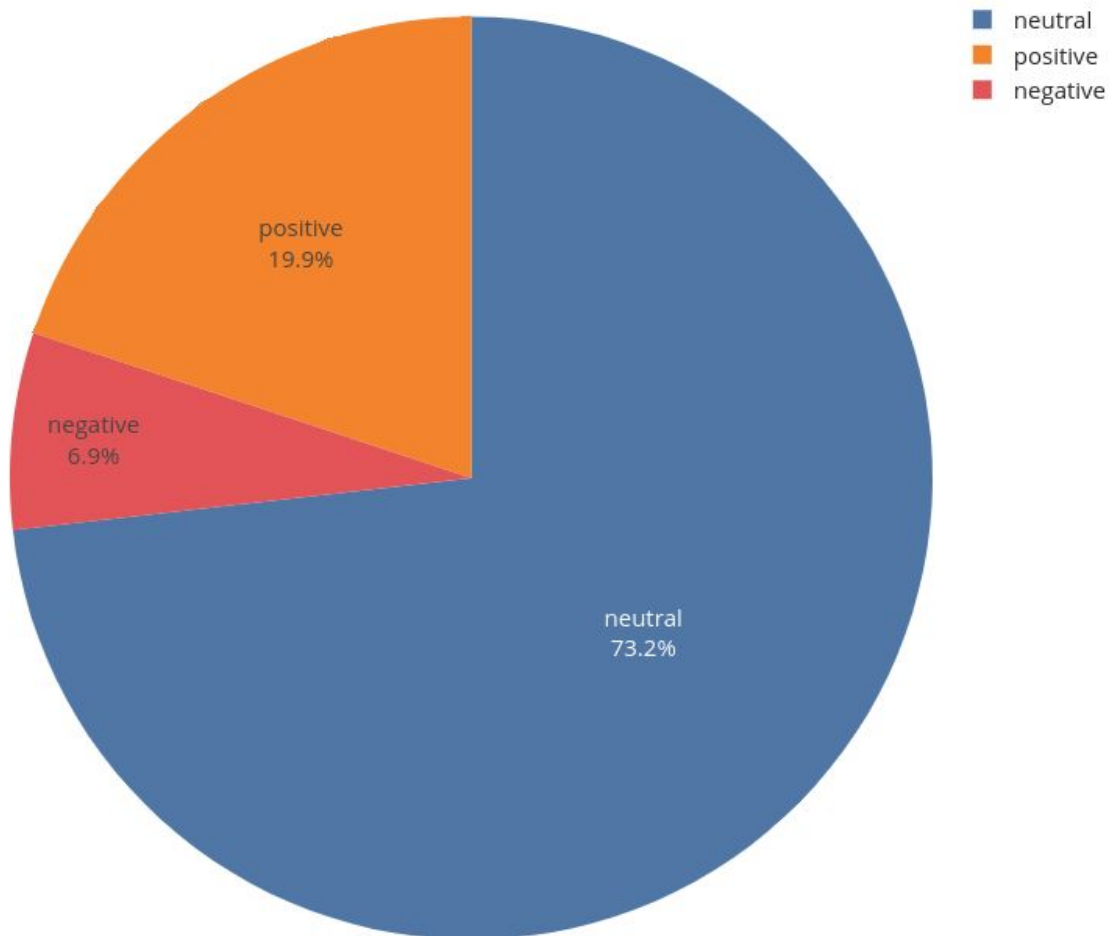
classified as “neutral” by VADER. The amount of positive tweets were essentially cut in half, and the percentage of negative tweets increased more than tenfold.



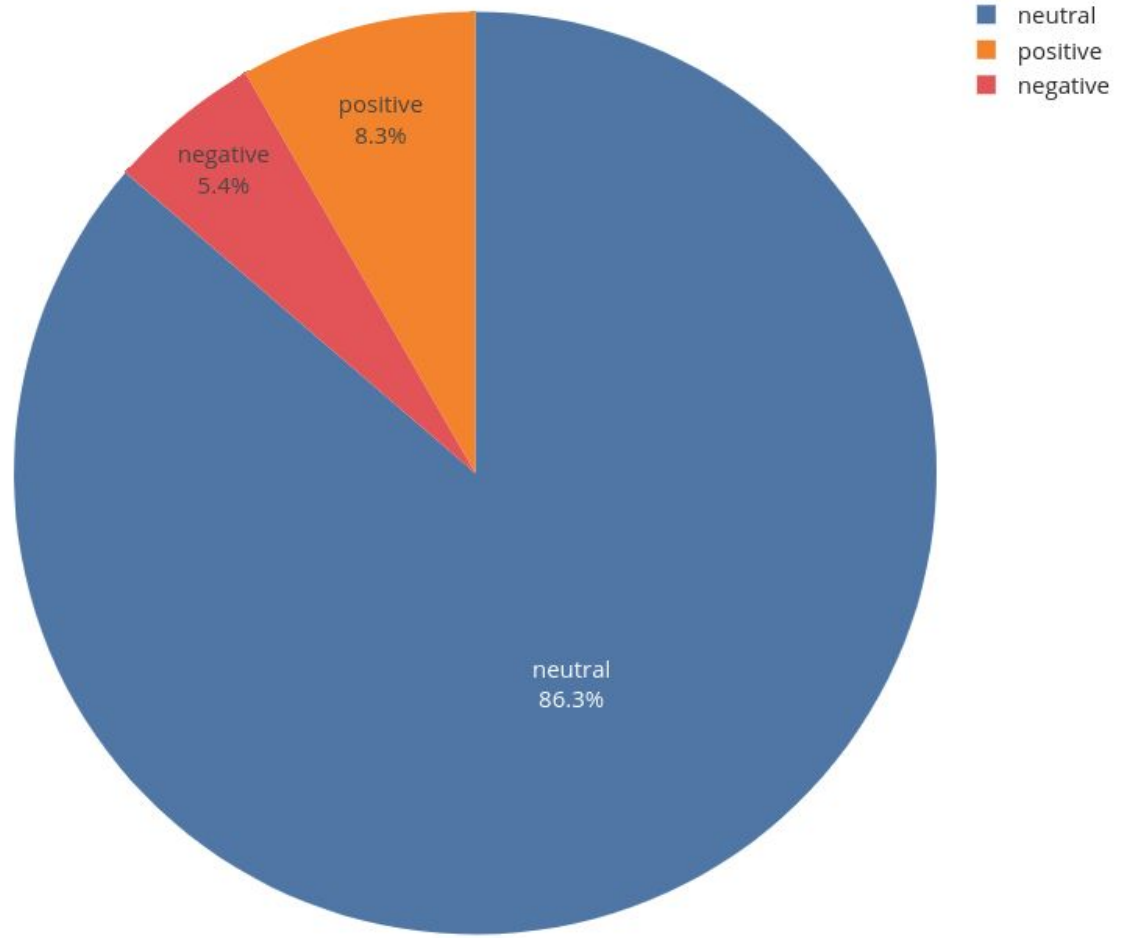
If we take a look at the teams playing in the superbowl, the Rams and the Patriots, we can see how the game affected the type of media attention the fan bases were giving each team. In recent memory, the Rams have been a team without much postseason success, whereas the

Patriots have been a dynasty in the NFL. By performing sentiment analysis on archived tweets about the Patriots and Rams. It is clear that the Patriots have been a much more polarizing team in the eyes of the fans. The Rams on the other hand seem to be regarded as just another average team in the NFL and this reflected by the amount of “neutral” tweets regarding each franchise.

Historical Patriots Twitter Sentiment

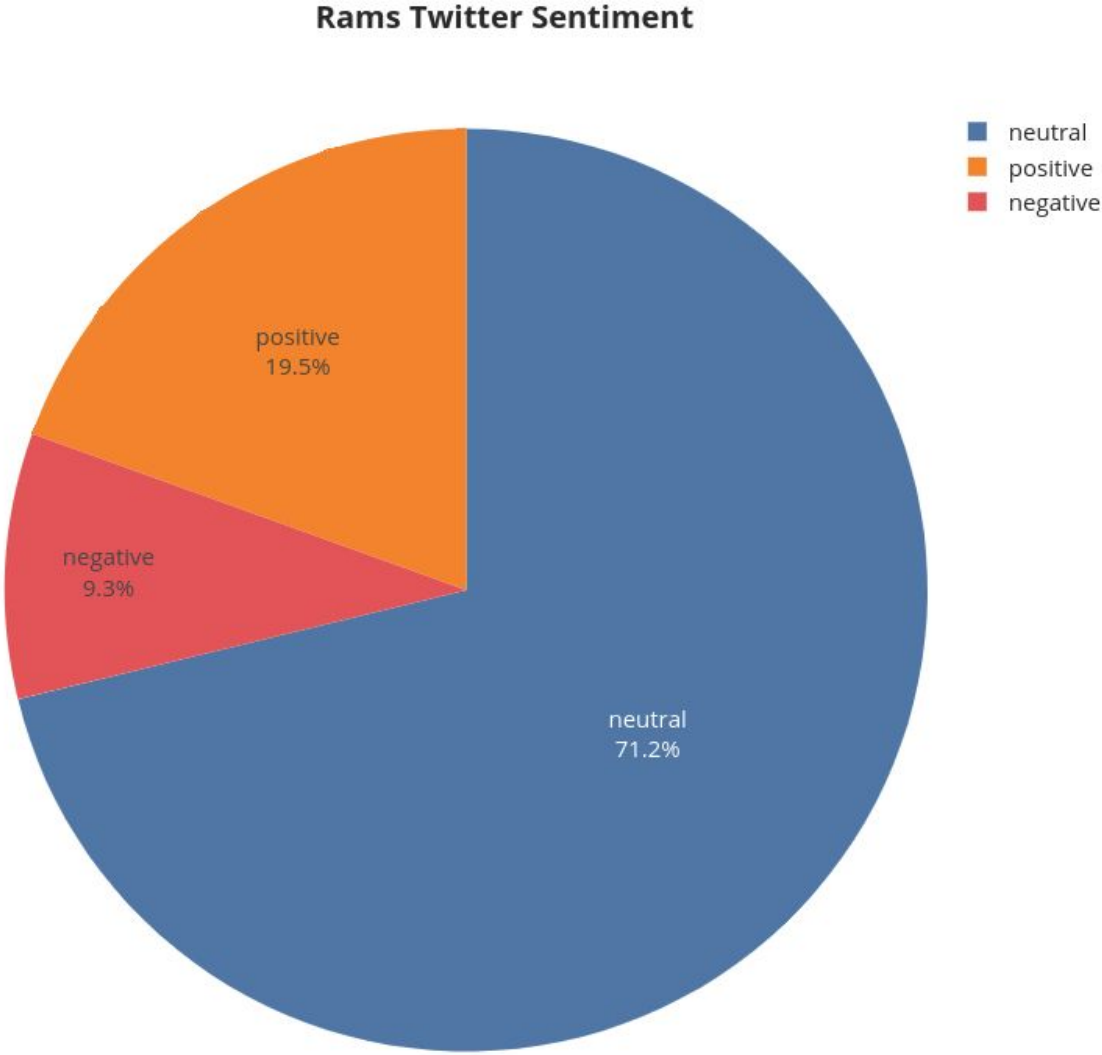


Historical Rams Twitter Sentiment



Sentiment analysis can again be used to show how the result of the Super Bowl impacted both franchises. In the case of the Patriots, the changes in the sentiment breakdown aren't really interesting (. It seems as though fans were not surprised by the outcome of the game. The Rams however, saw a much more significant change. It's safe to say that most of extra "negative" and

“positive” tweets came from the Rams being in the Super Bowl after such a long time, which definitely brought a lot more social media attention to the franchise.



The Social Media Macroscopic is a robust analytics tool that’s continuously undergoing improvements and changes. As seen, the macroscopic can help users draw unique insights from social media data quickly and efficiently, and best of all, presents the findings in a clean and

orderly format. Although sentiment analysis was the most well rounded tool for this case study, the other tools in the macroscope are just as valuable and effective for conducting social media data analysis.