

Super Bowl

Superbowl is one of the most anticipated, and celebrated annual events. It not only attracts viewers from United States but around the globe, making it the most awaited event. Due to its huge popularity, the event gives an opportunity to understand the prevailing mood of the people, and the team they are rooting for. The Finals is between the 5 times Champions, New England Patriots and Philadelphia Eagles, and to analyze the favored team, twitter data is collected using the Twitter API.

Data Collection:

- Data is collected for two teams using the hashtags - #NewEnglandPatriots and #PhiladelphiaEagles.
- It is collected at 3 times (Before, During, and After the game), to capture the emotion and trend of support.

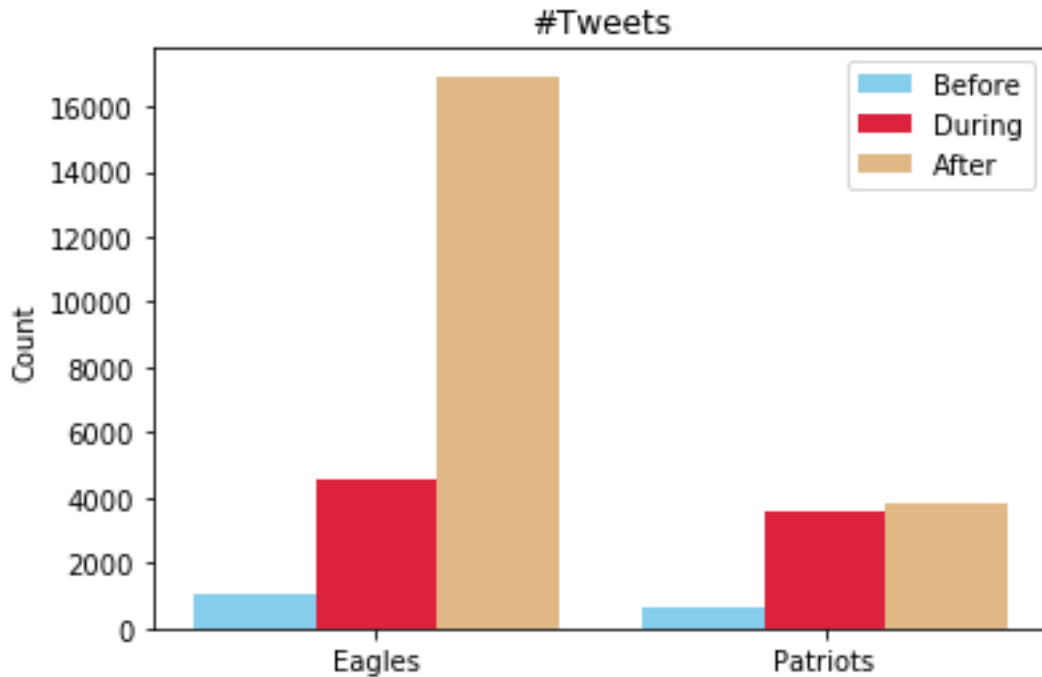
Below are few insights from data.

1. Tweets Count: What can it reveal?

From the graph below, it can be noticed that the tweets count gradually increases from before to during game phase, and a drastic ascent is noted after the game for Eagles, but remains steady for patriots.

It can be explained that before the game people are rooting for their teams and as the game progress they started tweeting enthusiastically to support them, and finally after the game comes to an end, tweets from Eagles supporters dominate to congratulate and express happiness over the win.

From the above analysis, it can be inferred that large group of population is favoring Eagles over Patriots as they are tweeting more about the Eagles and cheering the team, and the above claim is supported by a Monmouth University poll stating that Americans are rooting for the Eagles over Patriots, as per an article by cbssports (<https://www.cbssports.com/nfl/news/super-bowl-2018-poll-americans-are-rooting-for-the-eagles-over-the-patriots/>).



2. Most popular emojis associated with the teams.

From the chart below, emoji usage during the 3 periods can be analyzed.

Eagles:

- Eagle, American football, and the Green heart remain the top 3 emojis in the 3 phases, and Eagle dominating over the rest with large margin.
- Also, reflects the trend of emojis usage from beginning to the end of the game.
Before and during the game– supporting with raising hands, and flexed biceps.
After game – celebration with trophy and party popper emojis.

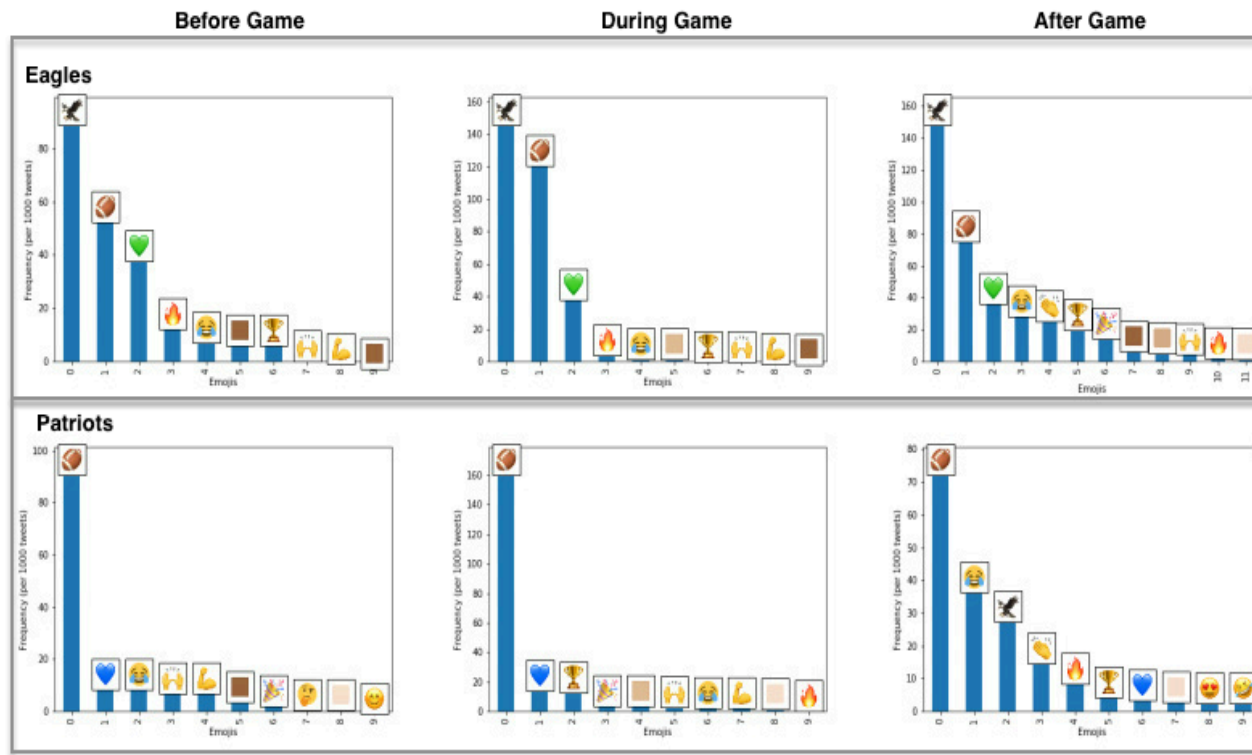
Patriots:

- American football remains the most popular emoji in the 3 phases. Blue heart being the top second in before and during phase, but not in the last phase as it has lost the game.
- The same trend as in Eagles has been noticed with patriots.
Before and during Game - supporting and cheering with emojis such as flexed biceps and party poppers and raising hands.
However in the last phase eagles has become the third most popular emoji, with their win.

Take Away:

From the above emoji trend, it can be noticed that a majority of patriot supporters are happy with Eagles win and congratulating them with clapping

hands emojis, while very few expressed sadness with crying face emoji (not included in the image as it falls not in the top 10 used emojis.)

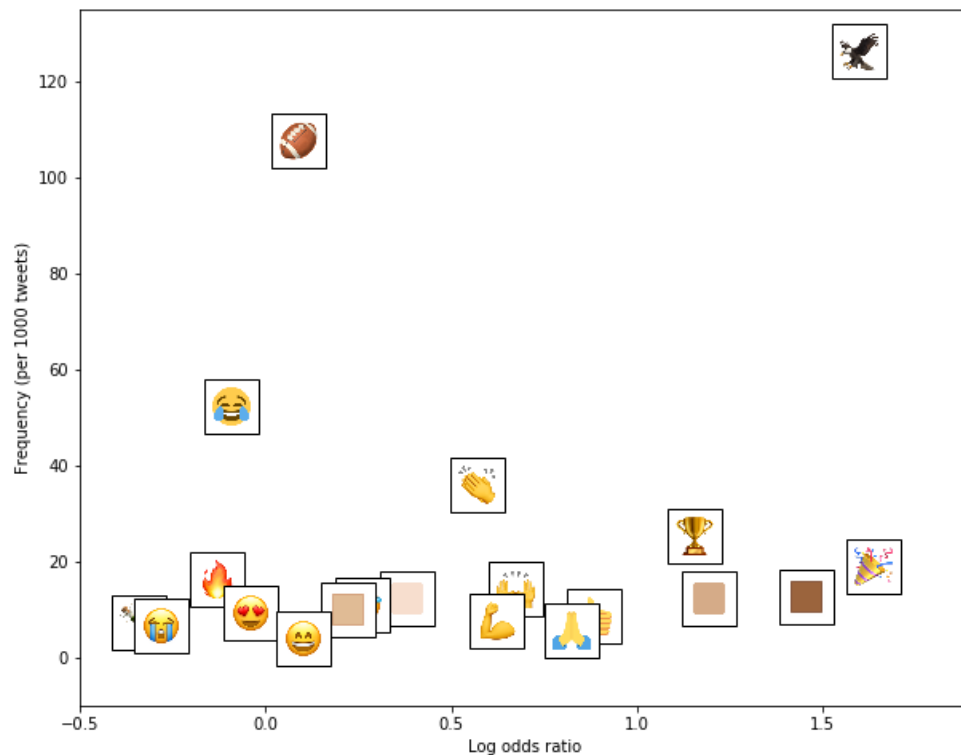


3. Commonly occurring emojis in Patriots and Eagles

The figure below demonstrates the most popular emojis used in both the teams patriots and eagles. The figure is plotted with log odds ratio on x-axis against the overall frequency (per 1000 tweets).

All the emojis on the scale >0 on x-axis indicate that they are more common in Eagles dataset, while emojis on the scale <0 on x-axis indicate they are more common in Patriots, while at 0, it means they are common in both the dataset.

- Eagle is widely used, and party popper is more common in Eagles dataset. Clapping hands, trophy, thumbs up are other commonly used ones.
- Crying face, fire are more commonly used in patriots, expressing their sadness over the loss, however there are emojis with heart and bottle wine expressing happiness over the win of eagles.
- American football and laughing face with tears are common in both datasets.



4. What can the most Frequent Words uncover?

Frequent words used in both the datasets Eagles and Patriots, can help in furthering analysis about the emotional journey of fans.

Patriots:

- A similar trend as with emojis can be identified with words. The words such as 'ready', 'gopats' were more frequent before the game; 'win' during the game; and 'gopats', 'eagles', 'congrats' to support Patriots and congratulate Eagles.

Eagles:

- It goes the same with Eagles, words such as 'ready', 'win' before the game; 'go', 'win' during the game; and 'congrats', 'happy' at the end of the game.

Sentiment is used to gauge sentiment of a text. Sentiment is classified into positive, negative, and neutral. Positive is associated with happy emotion, negative with sad and neutral has no emotion.

1. The sentiment result bolsters the findings from emojis and frequent words. Patriot supporters are happy with the results showing a positive sentiment even after the loss.
2. Some tweets have mentions of both Eagles and Patriots, and expressing sadness for the loss of Patriots therefore a negative sentiment is noticed in Eagles dataset. However the negative sentiment in patriots is obvious with the loss.
3. There are very instances of neutral sentiment.

