Final Project 615

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Introduction

The topic I have chosen for the final project is about a game which I have been playing recently, which is called *PokémonUltraMoon*. The publisher "The Pokémon Company" always launch two versions of game when the new game is released, for example, in this case would be *PokémonUltraMoon* and *PokémonUltraSun*. They provide different legendary pokémon for different versions. The version I purchased was 3Pokémon Ultra Moon. For thie project, I am interested in the followings:

- what is the overall response of this new game from the players using twitter.
- Is there any difference in comments between *PokémonUltraMoon* and *PokémonUltraSun*.
- Is there any of the difference corresponds to the region?

To answer the above, I have conducted the following technics:

- Sentimemt Analysis
- Wordcloud
- Mapping

```
## [1] "Using direct authentication"
```

Sentiment

Moon

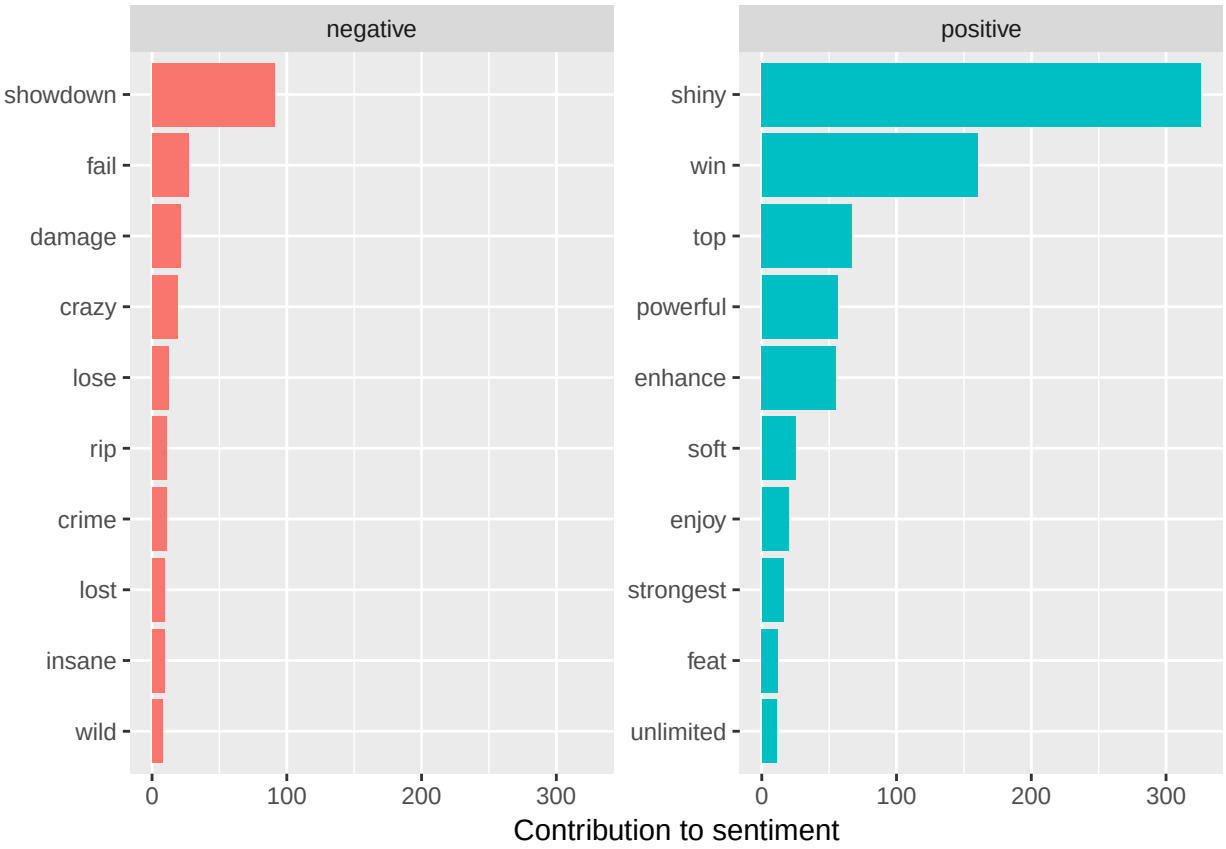
```
## Joining, by = "word"
```

```
## # A tibble: 2,123 x 2
##        word     n
##       <chr> <int>
##  1    ultra  2465
##  2     moon  1759
##  3  pokemon  1548
##  4      sun  1400
##  5  youtube  1017
##  6    video   842
##  7      amp   767
##  8       rt   723
##  9   pokmon   465
## 10 giveaway   370
## # ... with 2,113 more rows
```

```
## Joining, by = "word"
## Joining, by = "word"
```

```
## # A tibble: 193 x 3
##         word sentiment     n
##        <chr>     <chr> <int>
##  1    shiny  positive   326
##  2      win  positive   160
##  3 showdown  negative    91
##  4      top  positive    67
##  5 powerful  positive    56
##  6  enhance  positive    55
##  7     fail  negative    27
##  8     soft  positive    25
##  9   damage  negative    21
## 10    enjoy  positive    20
## # ... with 183 more rows
```

```
## Selecting by n
```



From the above graphs we could tell that the comments for *PokémonUltraMoon* normally involved positive sentiments. Most of the tweets involves positive feelings.

Sun

```
## Joining, by = "word"
```

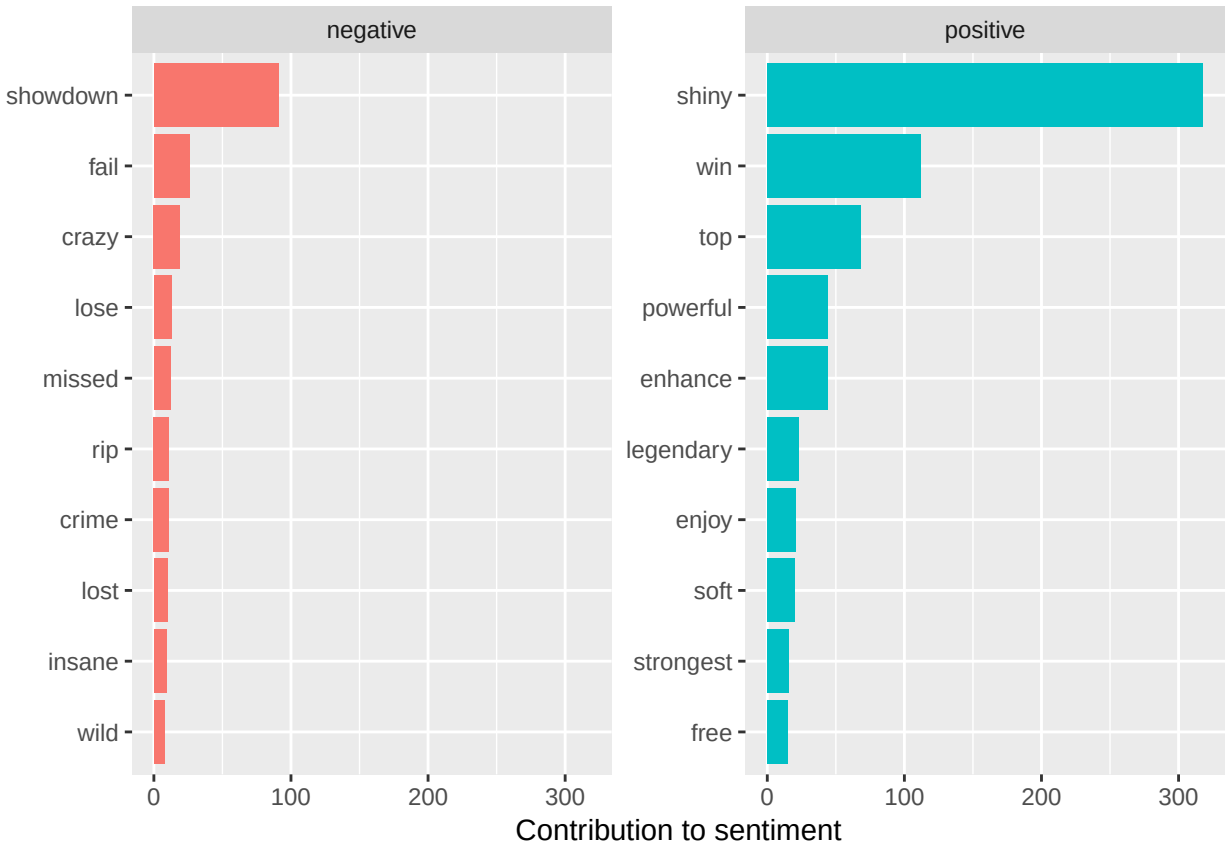
```
## # A tibble: 2,104 x 2
##       word     n
##      <chr> <int>
```

```
##  1   ultra  2458
##  2     sun  1751
##  3 pokemon  1588
##  4    moon  1390
##  5 youtube  1104
##  6   video   906
##  7     amp   708
##  8      rt   596
##  9  pokmon   457
## 10   shiny   318
## # ... with 2,094 more rows
```

```
## Joining, by = "word"
## Joining, by = "word"
```

```
## # A tibble: 194 x 3
##         word sentiment     n
##        <chr>     <chr> <int>
##  1     shiny  positive   318
##  2       win  positive   112
##  3  showdown  negative    91
##  4       top  positive    68
##  5   enhance  positive    44
##  6  powerful  positive    44
##  7      fail  negative    26
##  8 legendary  positive    23
##  9     enjoy  positive    21
## 10      soft  positive    20
## # ... with 184 more rows
```

```
## Selecting by n
```



We could get same conclusion from the sentiment analysis of *PokémonUltraSun*, that more positive comments were generated by the users on twitter.

However, there is a slightly difference in the number of positive and negative between Moon and Sun, that the positive comments for the Moon version might be slightly greater than the Sun version.

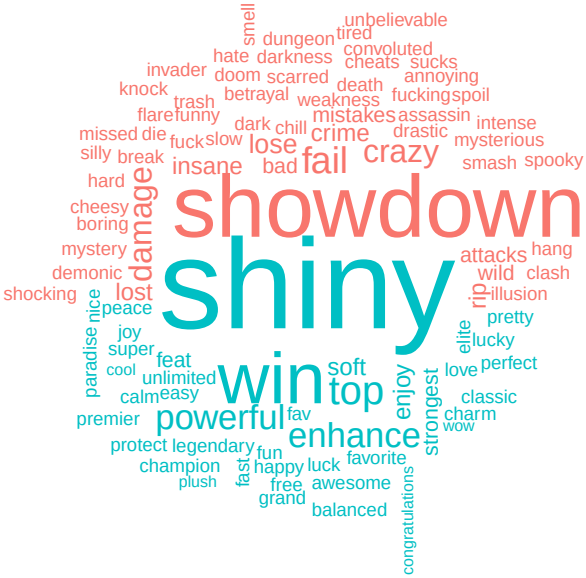
Wordcloud

Moon

```
## Joining, by = "word"
```


```
## Joining, by = "word"
```

negative



positive

Sun

```
## Joining, by = "word"
```


```
## Joining, by = "word"
```

negative

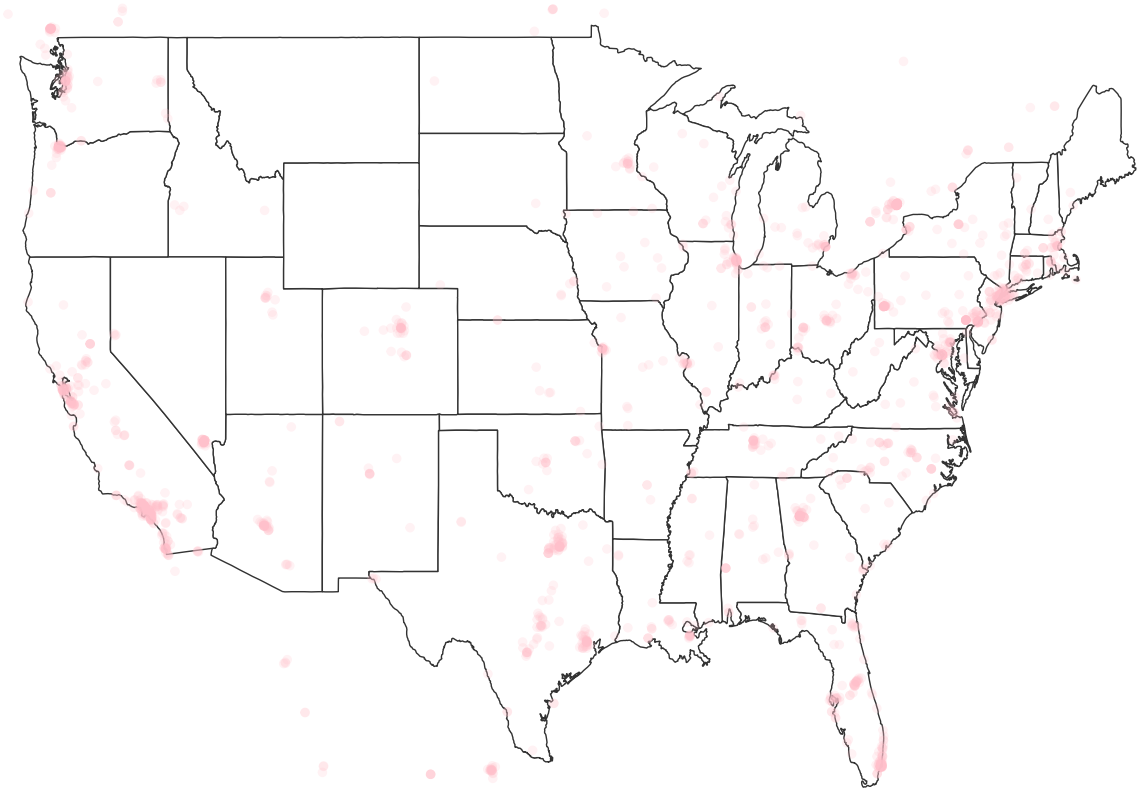
positive

From the above two wordcloud plots, we could clearly see that both Moon and Sun version sharing the same comments for both positive and negative sentiments. And the proportion for the top10 most generated word for both postive and negative sentiments for both Moon and Sun versions are pretty similar. For example, the word “Shiny” shares the biggest proportion for both the Moon and Sun on the positive side, and the word “Showdown” shares the biggest proportion for the both versions on the negative sides.

Mapping

Moon

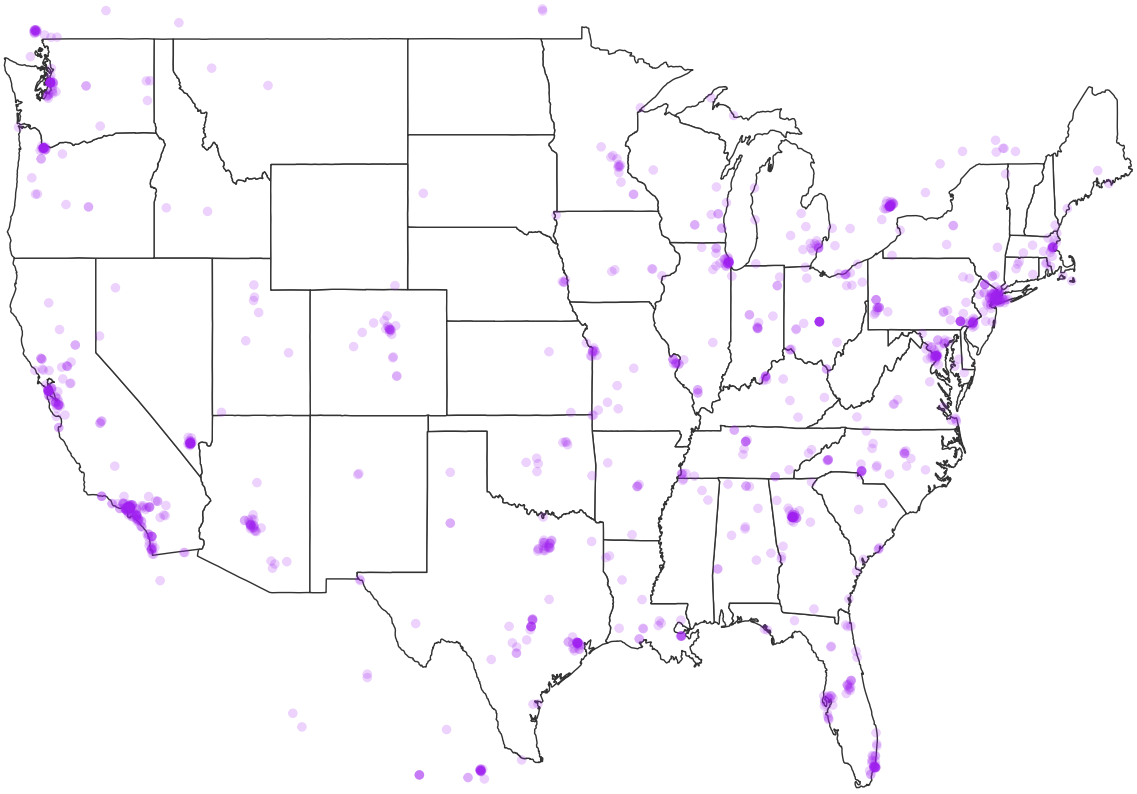
```
## Capturing tweets...
## Connection to Twitter stream was closed after 200 seconds with up to 4122 tweets downloaded.
## 19245 tweets have been parsed.
##
## Attaching package: 'maps'
## The following object is masked from 'package:purrr':
##
##     map
```



From the map we could tell that for the 2000 data points I generated from twitter, most twittes mentioned *PokémonUltraMoon* were generated from the east of the State. And there are also lots of twittes generated from the west boundary of the landscape.

Sun

```
## Capturing tweets...
## Connection to Twitter stream was closed after 200 seconds with up to 4350 tweets downloaded.
## 13650 tweets have been parsed.
```



We could conclude the similar results from the map above for *PokémonUltraSun* that most of the twittes were generated from the east of the State, and there are also lots of twittes generated from the west boundary of the landscape.