

Impact analysis of COVID-19 on different business using NLP on twitter data

Social media is becoming one of the powerful channels for people to exchange their views, concerns, updates related to their personal, political, business and so on. Twitter is one of the most widely used social platforms.

Within this scope of article, analysis of the sentiments and manifestations like comments, hashtags, posts and tweets of the users on the Twitter social media platform, Tweets are extracted based on the main trend keywords, #Coronavirus OR #covid—19 OR #covid19 OR #covid19italia OR #coronavirusoutbreak OR #covid2019 .With the help of Natural Language Processing(NLP) technique and with sentiment analysis over tweets and analysis is carried over to statistically visualize impact of COVID-19 over different countries, industries, and sentiment analysis is summarized for further processing.

Data cleaning is the first step towards the analysis.

```
df.dropna(subset = ['hashtags' , 'favorite_count', 'retweet_count']).count()
```

id	2263
created_at	2263
source	2263
original_text	2263
clean_text	2263
sentiment	2263
polarity	2263
subjectivity	2263
lang	2263
favorite_count	2263
retweet_count	2263
original_author	2263
possibly_sensitive	486
hashtags	2263
user_mentions	1944
place	1559
place_coord_boundaries	54
dtype:	int64

Fig 1. Intermediate result after data cleaning

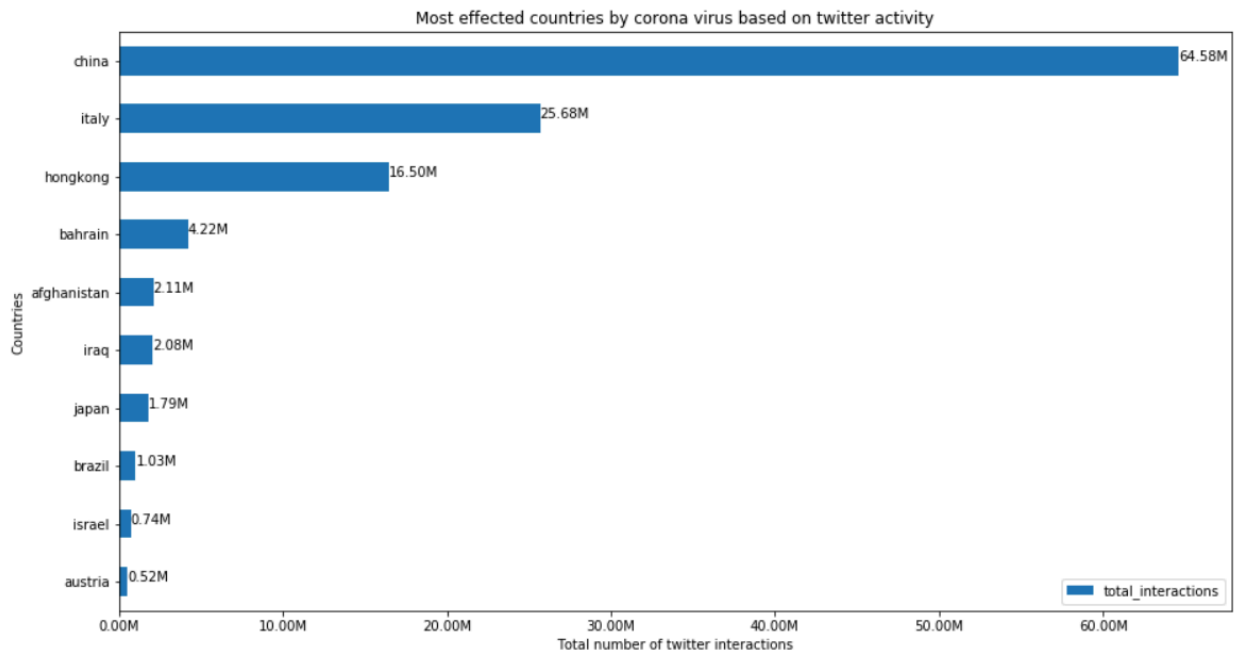


Fig 2. Country wise COVID-19 affect analysis

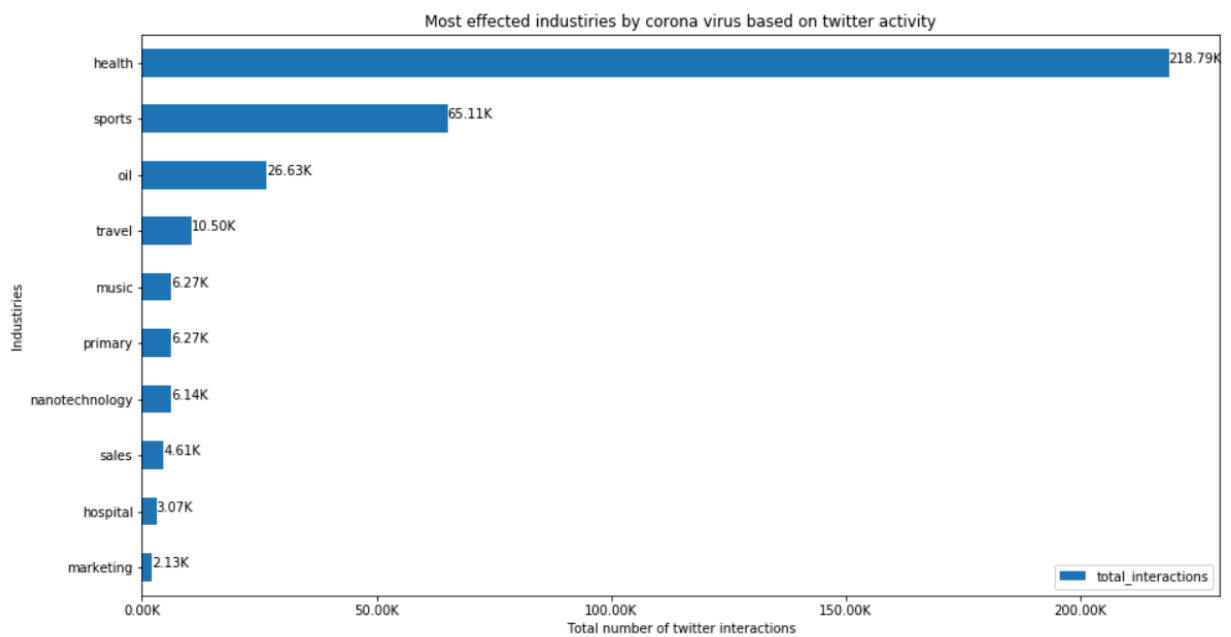


Fig 3. Industry wise COVID-19 affect analysis

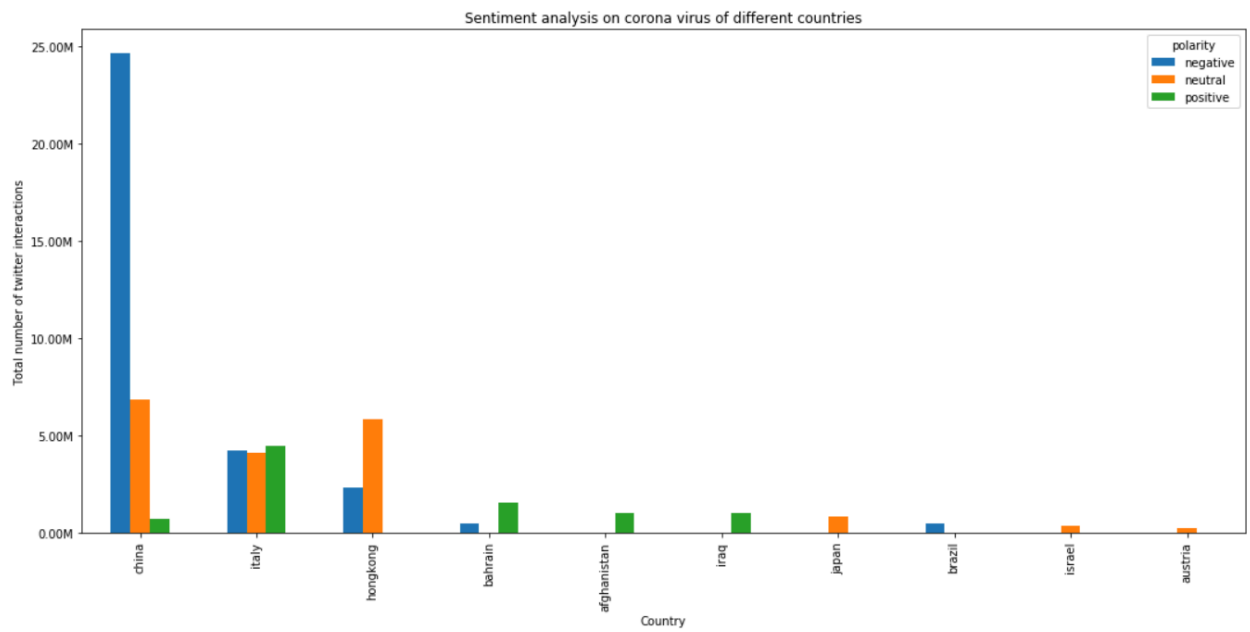


Fig4. Country wise sentimental analysis