Language:

This page mainly demonstrates the relationship between the language and the polarity. On upper left corner of the page, the number of languages spoken in each city in the Twitter data is illustrated there. We easily find out that the number of Twitter users who speak English accounted for the vast majority. On the bottom left corner of the page, the average score which divides the total polarity of people who speak this language by the number of people who speak this language is shown there. We can easily find out that the average polarity of English speakers is the best. The center of the page shows the average polarity of the 8 major cities and we can get that the polarity of Twitter users in Canberra is the best. On the upper right corner of the page, the bar chart reveals the top five of the total number of people who speak a language in each city from the tweets and compare it with the Aurin data. On the bottom right corner of the page, a word cloud map is created according to the tweets we get to show the number of people who speak different languages. That’s all for this page.

Unemployment:

In the scenario studying unemployment, we found that the most number of the mentioned related word is “recession”. Other words such as “inflation” and “employment” reveal popular topics across Australia. As shown in the left plot on the top, we can see that the popularity of the topic gets significantly increased in the middle of May. The result somehow makes sense as we compared it with the News in that period that the Labour’s budget plan released and the new cases of COVID-19 found in Australia. On the other hand, the result may be biased since during the system updated the crawler was not working 24/7 in early May.

The plot on the top right study the relationship between the unemployment rate and the sentimental appearance in different cities. Due to the GCCSA spatial level is not fully suitable for our chosen cities, the data is only compared across Melbourne, Sydney, Adelaide, Brisbane and Perth. By the assumption that a higher unemployment rate may affect the popularity of the unemployment topics discussed on Twitter, we test our hypothesis over the overall unemployment rate(All labour force) and the youth unemployment rate(18 – 24 years old labour unemployment rate). The result given above shows that the total unemployment rate in each city is positively correlated with the average polarities.

Source

This page focuses on the analysis of iPhone and Android users over various factors. On the top right hand corner of the page we could see the proportion of tweets sent from iPhone and Android in each city. Based on the plot, we could see that tweets posted from iPhone outweighs Android in most cities. On the top left hand corner of the page, we have the tweets send by sources with respect to time. Similar to what we find, tweets from iPhone outweighs Android most of the time. However, more tweets are from Android rather than iPhone reflecting that iPhone users may have less access to mobile devices in the afternoon.

The plot on the bottom left corner, we could see the average polarity and subjectivity of tweets from iPhone and Android. Generally speaking, the sentiment score for tweets from iPhone is higher than that for Android in overall terms and in each city we concern. The plot for each cities sentiment score over the 2 sources could be seen in the middle of the page.

Time

This page focuses on the analysis of people’s pattern in access to twitter. On the top left hand corner, we could see the number of tweets harvested for each hour. Based on the plot, we could see that most tweets are posted in the morning and at the late night. From 11 oclock onward, there is a significant decreasing trend in the number of tweets posted and the number of tweets stops decreasing at 5:00pm, the number of tweets rises back from 6:00 pm onwards. A clear U-shape could be identified. The graph below demonstrates the change in polarity and subjectiveness over time. From 0 oclock to 12 oclock, the change in sentiment score is marginal. However we could observe a clear decreasing trend after 12. The most unhappy hour during the day is at 5 pm, but people recover from that quickly. In the middle and top right hand corner of the page, we have an hourly demonstration of the change in number of tweets and sentiment score. We will not go into detail here. The last graph in the page is a cloud demonstrating the proportion of people in each city posting tweets at night, in the morning and in the afternoon. The maximum for morning is Perth, the maximum for night is Newcastle and Canberra and the maximum for afternoon is Gold Coast and Adelaide.

Vaccine

This page focuses on the analysis of people’s attention and attitudes towards COVID vaccine related topics. On the top left hand corner, we have the number of tweets talking about covid vaccine related topics over the whole inspection period. According to the plot, we could see a gap on 10th May. The number of tweets after this date is generally higher than the number of tweets before that day. This may be explained by the rising number of cases and the resume of indian flights. On the left bottom corner, we have a plot demonstrating the change in sentiment score of vaccine related tweets overtime. As compared to what we got in earlier sections, the sentiment score for vaccine related tweets fluctuates a lot. The most significant drop is on 9th of May. In the middle of the page, we have a map showing the sentiment score of people towards vaccine related topics for each city. We could see that Newcastle and Canberra are the top 2 most optimistic cities, whereas Sydney and Melbourne are the 2 least optimistic cities. Plot on the right top gives the proportion of people answering disagree neutral and agreeing to questions: “When a COVID-19 vaccine becomes available and is recommended for me, I will get it”. and “I will try to get a COVID-19 vaccination as soon as it is available to me.” The proportion of negative tweets is similar to the proportion of respondents who disagree with the questions. However, the proportion of neutral tweets is way larger than it is for neutral responses in surveys. This may demonstrate that the sentiment score of a tweet underestimates the optimism of people towards covid vaccine. Considerable number of people will choose to take the vaccine when the vaccine is either recommended or available to them.