Assignment 6

Steven Raaijmakers   Irene Vega Ramón

November 2019

Methodology

In this report we analyze and visualize tweets containing the hashtag #HongKong. We extracted and visualized the data using netlytic [1]. Netlytic returns a set of $1,000$ of the most recent tweets at time of requesting.

In Figure 1 we see a visualization of the network, being undirected. In this visualization the users are represented by nodes, and a pair of users/nodes will have an edge between them if one of the users/nodes has mentioned the other in a tweet. The different colors in the visualization represent the different communities in the network.

Connections Analysis

It is visualized that there is a big central group of accounts that gives or receives most of the mentions. Moreover, there are 37 small, independent groups that consist of 1-15 connections.

It is remarkable that the users with the most edges are run by Americans. The user with the highest number of edges, @SpeakerPelosi, is the speaker of the House of Representatives in the United States. Although this account has not used the hashtag herself nor mentioned the current situation in Hong Kong, many users ask for a reaction from the House of Representatives for the current state of events in China.

The second account with the most nodes, @marcorubio, shares mentions with @SpeakerPelosi coming from the same users. The account is run by Marco Rubio, the US Senator of Florida. Users also ask for a reaction from him to the current state of events. The third account with the most nodes is @KaWingChan10. This user has not been mentioned in any tweet, but he has repeatedly requested help to defend protesters in Hong Kong to many American politicians.

At first, the popularity of these two accounts was surprising, as it was expected that Chinese politicians or public figures were mentioned more. It is a visualization on the perceived impact of the American government has in any international current affair. However, it must be noted that the key hashtag, HongKong, is written in English. This thus limits the results of Chinese
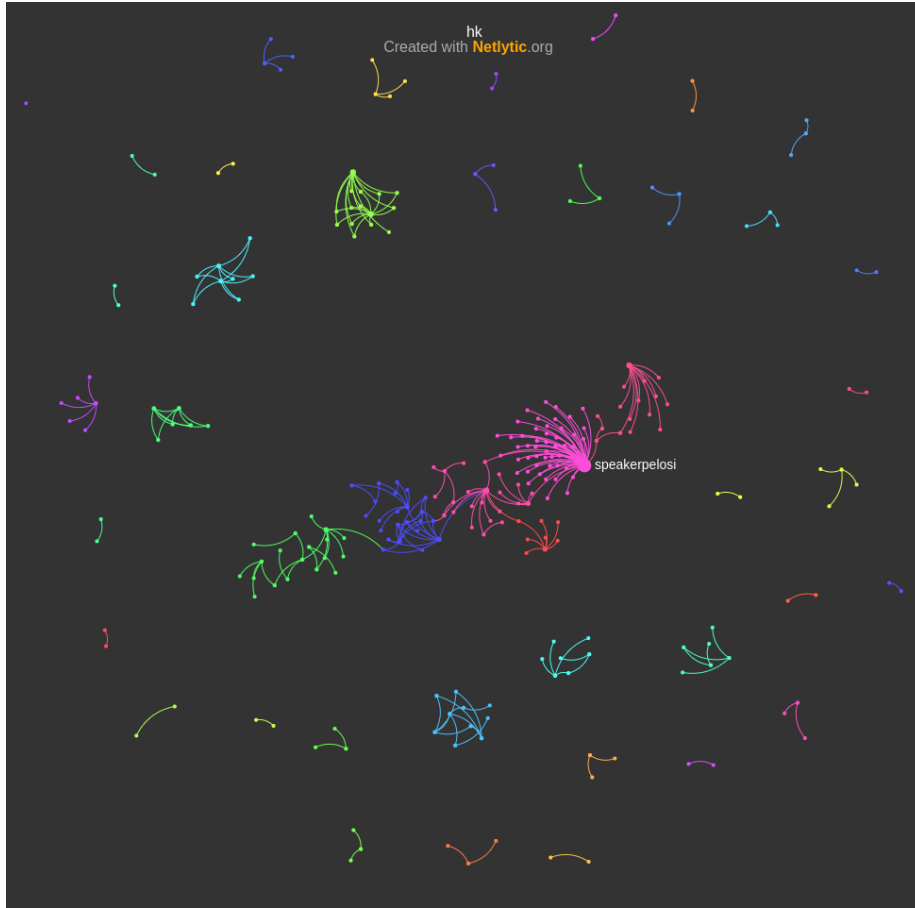
---

[1] https://netlytic.org/

Figure 1: Network representation of users of the latest 1,000 tweets containing #HongKong.

accounts or other languages in general, and favors the countries whose first language is English and have more inhabitants with a Twitter account. Both of these factors favor American politicians.

Content Analysis

In Figure 2 we see further analysis of the tweets. Figure 2a shows us the top 10 most occurring words within the dataset, with "#HongKong" not surprisingly being number one.

The content of the tweets accurately reflect the most popular topics that are discussed in relationship with the current state of affairs in Hong Kong. The topics include 'rights', 'democracy', and 'human'. This further indicates a general support to the protesters instead of to the Chinese government. This

could be, again, because our key hashtag is written in English, and the countries were English is most spoken are in favour of a democratic form of government.

In the future, it would be very interesting to do the search using the Chinese characters for the word "Hong Kong"

Figure 2b shows us the top 10 posters within the dataset. These are the users that have posted the most tweets and at number 1 we can see @KaWingChan10.
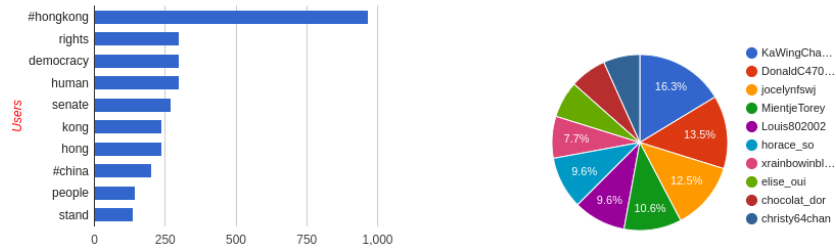
(a) Top 10 most frequent used words.

(b) Top 10 posters.

Figure 2: Statistics about latest 1,000 tweets containing #HongKong.