DS8006: Lab 6 "Visualization of Dynamic Networks in R"
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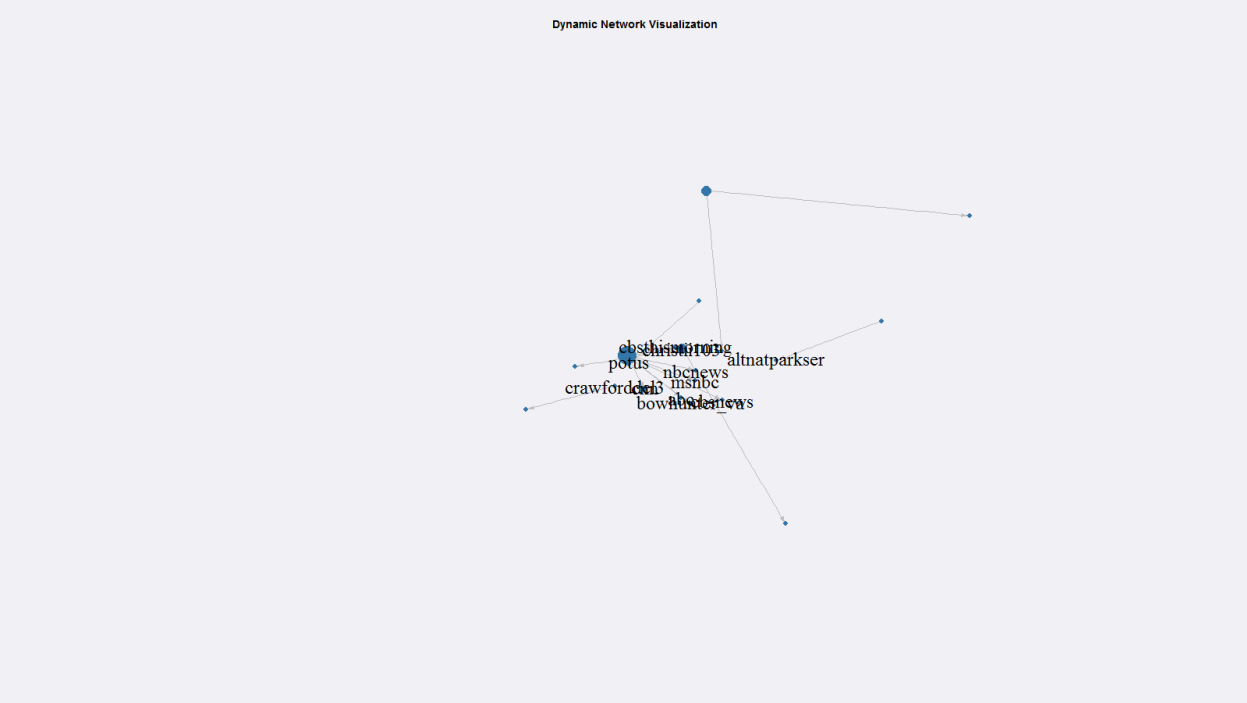
1. Mention what topic(s) and time frame your Twitter data represent .

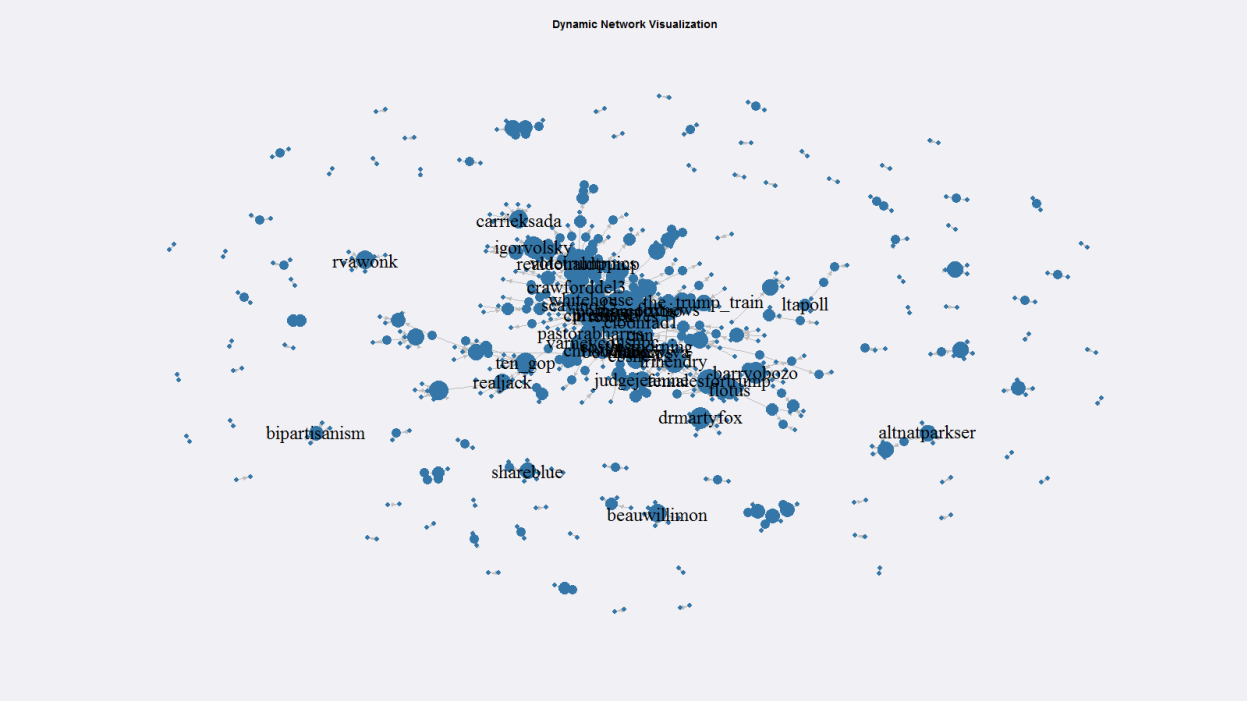
*The topic chosen was the President of the United States Address to the Congress, and the hashtag used in the search was **#JointAddress** (that was also trending topic on that same day). The address was done on February 28, the data was collected the next day on March 1st. and an extra load on March 6th. From the dataset, the timeframe of tweets collected is from 01/MAR/2017 8:52PM – 06/MAR/2017 11:47 PM.*

2. Include three screenshots showing the changes in your network visualization at the beginning, middle and end of the animation.

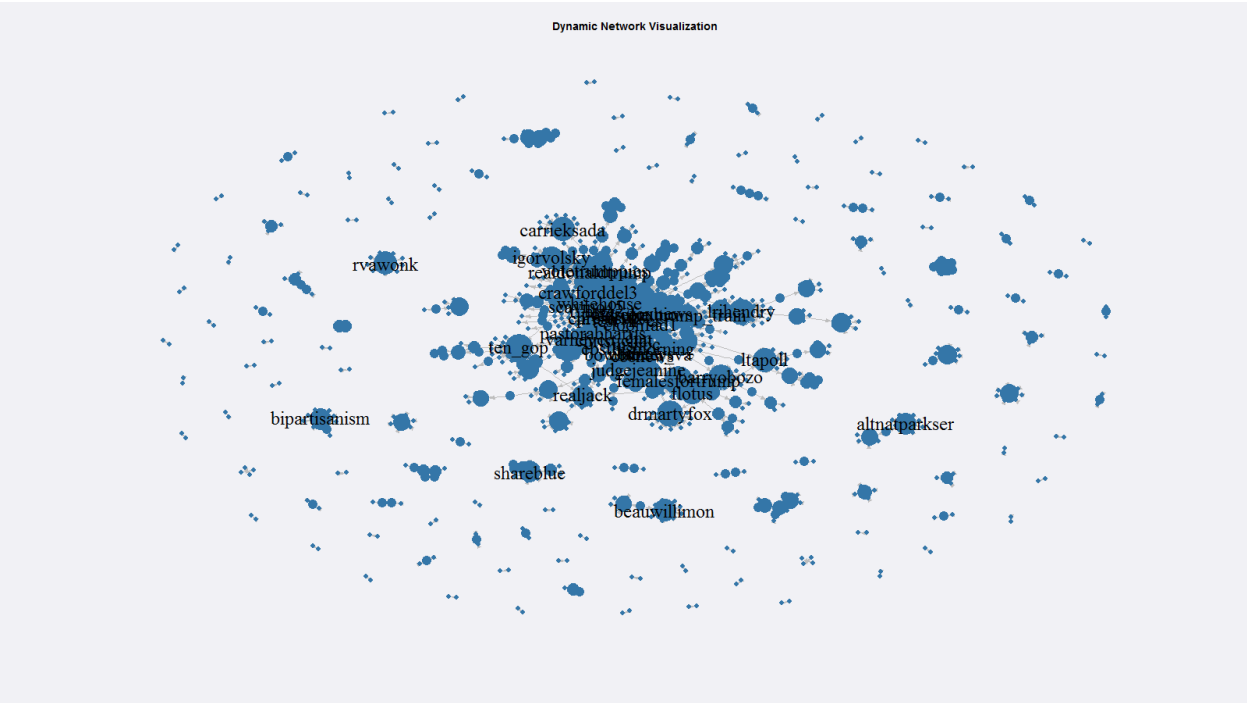
I selected the first frame:



The middle frame:



And the final frame:



3. Comment on what you discovered using the network visualization over time as opposed to having the static visualization from Lab 5. <u>Give specific examples related to your dataset!</u>

The obvious difference between the static visualization and the dynamic visualization is the addition of the time dimension from the time frame captured in the video vs one frame for the final state in the

static visualization from Lab 5. In terms of what is specific for this dataset, the dynamic visualization shows how the conversation is clustered around the initial users that started it and it just keeps circling around the same users. My interpretation of this is that the conversation and topic is concentrated around a couple users (maybe official accounts like news channels or political commentators) and most if it is just reactions to that.

4. Provide a link (URL) to your network visualization on Youtube (you are welcome to use other video sharing services if you prefer.) FYI. When uploading your video to YouTube, you can keep it 'unlisted' this way only people with the provided URL will be able to locate.

https://youtu.be/FkloxhYkSJ0

5. What was the most challenging part of this lab? And what did you learn? (Your answer to this question should be at least 150 words)

*The most challenging part of the lab was dealing with the dataset, as I exported the wrong dataset at the beginning. After I found the place to export the "edges" CSV and not the "tweets" CSV, it was very simple to go through all the instructions provided. Even using **ffmpeg** to create the video and uploading to YouTube was trivial. The second most challenging part was to analyze the results and coming up with an explanation to the video animation.*

*In terms of what I learnt, I think it was the usage of visualizations in R to build networks and then using **ffmpeg** to build a video based on a series of individual frames. The idea of creating frames and then producing a video from them is a very powerful technique that can be applied to many other types of analysis. I would still like to understand how use R to create the "edges" dataset from tweets instead of having to use Netlytic for it, but that is something that can be done on our own if necessary.*