Blarry Wang
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Homework 6 Report
Advanced Data Visualization

Question 2 Justification

Shiny App: https://blarry.shinyapps.io/tweet_stats/

The purpose of my visualization is to show the proportions of each tweets types. I want my audience to get a quick understanding of how likely attack tweets are to happen in the 2014 gubernatorial election. For those who read further into the paper, they can see how likely policy and contrast tweets are tweeted.

I chose to present my data in a modified heat map. I think this is the best way to serve a variety of audiences. The general audience can get a rough estimate of the different proportions from heat map very directly. For the audience who wants to know more precise tallies or want to get a better estimate, they can also count the number of squares of each tweet category. Each row has 10 squares so it is also really easy for them to be counted up. In addition, at the bottom of the visualization, there is also the precise proportion and count for each type of tweets. Lastly, the audience is also able to control the amount of information shown by choosing different level of gradualities.

A modified heat map compared to a pie chart has several advantages. Firstly, a pie chart hides the exactly number of tweets which can be important information for the audience. Secondly, a pie chart doesn't have as much flexibility of showing different levels of gradualities. Generally if we divide a pie, we see distinct categories. For example, if we show the pie at the policy level, then we see three chunks of pie: 1) the non-attack tweets, 2) the attack tweets that are not policy, and 3) the attack tweets that are policy. This further separates attack tweets into two categories without reflecting the fact that they are in the super-category of attack tweets. In the heat map, such issue is relieved — the attacks are all located at the very bottom. Such spatial organization of the squares shows implicitly that there is a super-category.

Question 3 Feedback

Kaley Aldrich:

I really enjoy how interactive your visualization is, and find the heat map an inquisitive way of presenting this data to your audience. However, I find the labeling of a "contrast" tweet without providing a definition, confusing. I would highly suggest including definitions in your "What does this plot mean?" section. I also find the color distribution in the heat map when selecting "Contrast" confusing. It might be my lack of good vision, but I think to make it easier to read, expand the color scale. I say this because the blue and violet colors look the same to me and makes your visual difficult to read. Including levels of tweets in your "What does this plot mean?" section helps the toggle function make sense; however, it is much more user-friendly when the labels are the same. Making the labels the same means making the tweet type toggle labeled using the levels defined in your description or define the tweet types in your description.

In rationalizing using a heat map, the use of 10 squares in each row aids in visual approachability. But I think a scale of some kind will help people read your data quickly. This is especially important for your project when you are presenting your data to an audience. While it is fine to count squares, I find it to be too much work and want to move on from it. Your project is important and the work you've put into coding your tweets is substantial and visualizing your data in an enticing way is extremely important for people to be able to understand your data quickly. This is so they won't dismiss your data because it takes too much time and energy to understand it. Lastly, I want to commend your creativity expressed in this visualization. Personally, I like being able to interact with data instead of reading graphs and find interacting with data makes me feel included in the project.

Maha Alhomoud:

First of all, amazing job with the heat map! The color contrast is spectacular, the option to switch from policy to attack to contrast is impressive, and the visual aesthetic of the plot is clear. Some feedback I have would be that if you could spell out what are attack tweets, what are non-attack tweets, and what the contrast exactly means, as I was confused about that. Could you also caption each figure with a small caption explaining what the figure shows, for ex: "This figure shows that there were more attack tweets than......" Further, have you considered representing attack tweets per candidate? Maybe each row represent a candidate and the squares could represent a certain number of tweets, although I'm not sure how would the implementation of that would turn out. Your usage of a heat map over a pie chart is great, since as you pointed out, a pie chart makes distinctive categories