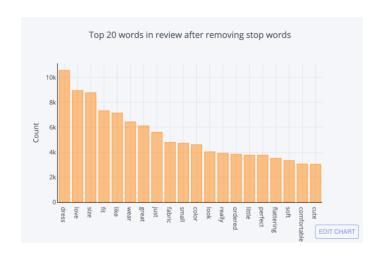
How to visualize and build connections between the text data and the case statistics?

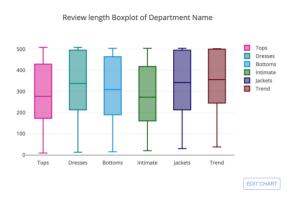
Possible References:

- 1. https://towardsdatascience.com/a-complete-exploratory-data-analysis-and-visualization-for-text-data-29fb1b96fb6a
- 2. https://kanoki.org/2019/03/17/text-data-visualization-in-python/
- 3. https://www.districtdatalabs.com/text-analytics-with-yellowbrick
- 4. https://medium.com/plotly/nlp-visualisations-for-clear-immediate-insights-into-text-data-and-outputs-9ebfab168d5b
- 5. https://medium.com/@melody.zapotoczny/a-quick-easy-guide-to-text-analysis-seaborn-4c1a20addba3
- 6. https://itnext.io/basics-of-text-analysis-visualization-1978de48af47
- 7. https://www.analyticsvidhya.com/blog/2020/04/beginners-guide-exploratory-data-analysis-text-data/
- 8. https://medium.com/district-data-labs/beyond-the-word-cloud-428e3c25b59c
- 9. https://www.pingshiuanchua.com/blog/post/keyword-network-analysis-with-python-and-gephi

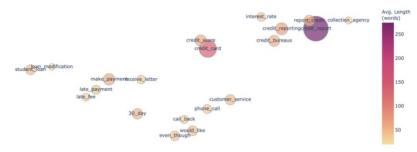
Possible charts:

- 1. We may want to visualize the overall pattern of the bills' keywords. (for the whole year)
- 2. We may want to visualize the frequency of words in each month. (Top 50/ Top 30)
- 3. We may want to see the changing pattern of keywords over months. (text network? Dynamic?)
- 4. We may want to find some relationships between the change of keywords and the number of cases in the U.S.

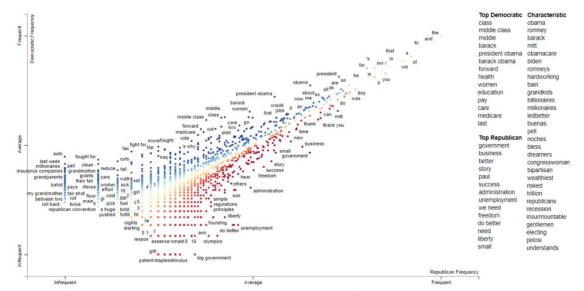




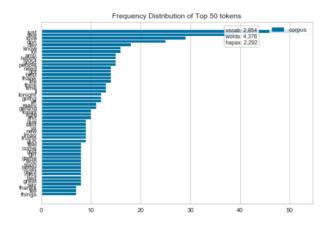
Bigram similarity and frequency

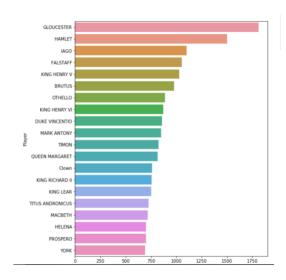


Displaying bigram concepts in a bubble chart

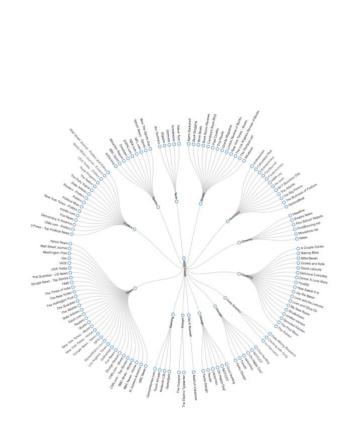


Democratic document count: 123; word count: 76,83 Republican document count: 66; word count: 58,138









Here is a network graph for the data that we'll analyse in this tutorial.

