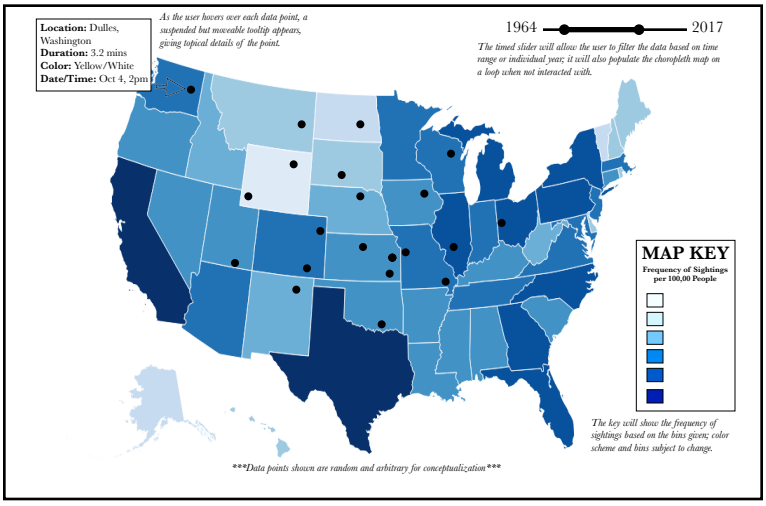
Northeastern University
CS 7295 – Information Visualization
March 2018, Abby, Emily, Lydia and Peter (The Conspiracists)

Frame I

Overview Sketch

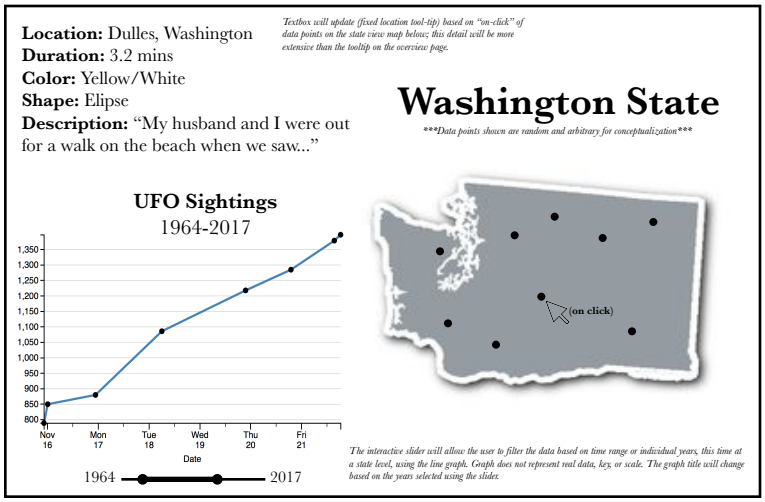


Overview Explanation

The first visualization is a choropleth map of the US which also includes a point on the location of each sighting. There is a slider on the top which allows the user to only view the data that have occurred during the selected time period. A tooltip with additional information of the sighting appears next to a point whenever the user hovers the mouse over it. Finally, clicking on a state takes the user to the next view.This overview supports most of the tasks we are interested in. These are to observe how the UFO sightings occur throughout all the years and in a particular year, to look for areas with a high number of sightings, to look for clusters, to learn the details of a sighting, and to learn what state has the most sightings. Encoding geographic location with the position of the points on the map helps the user with the first four tasks. For the second to last, we provide the tooltip. For the last task, we use color as a channel to encode the average frequency. The effectiveness of the channels we use corresponds to the importance of the tasks they facilitate.

Frame II

Detail View Sketch



Detail View Explanation

The detailed view of a single US state is now displayed. Users will be able to get a closer look at the data points in this view. By mousing over a sighting on the map, a tooltip on the left hand panel will appear on the top. The tooltip will display details such as when the sighting occurred, along with the description given from the data. By displaying the description, this will allow users more insight into each sighting, in order to discover possible similarities or maybe rule out sightings due to believe of it being another object near by (i.e. a lighthouse). Additionally, the bottom left will show a time series graph of the frequency of sightings throughout the state. Having the frequency graph with dates enables the user to do the tasks of answering when sightings in a particular area occurred, and which years had the most sightings. Time dependent, we will look to add another time range slider in order to filter out data and narrow in on specific years. This also enables deeper curious browsing of the data generally.

Implementation Summary

We plan to create the our visualization as web application using CSS, HTML and Javascript. With respect to frameworks and libraries, we plan on using d3 jquery and knockout JS for the development of specific application functionality. Node js / NPM will be used for package/dependency management to give all developers an easy environment set up Incase we decide to include another front end tool. Specifically, we will start with the "out of the box" code from: https://bl.ocks.org/mbostock; Jquery will be used to create the slider, High-charts will be used to create the time series chart, knockout js can be used to update the view with respect to filtering, and D3 will be used to create the choropleth map, tooltips, automatic text update functions, and parse in the CSV.