

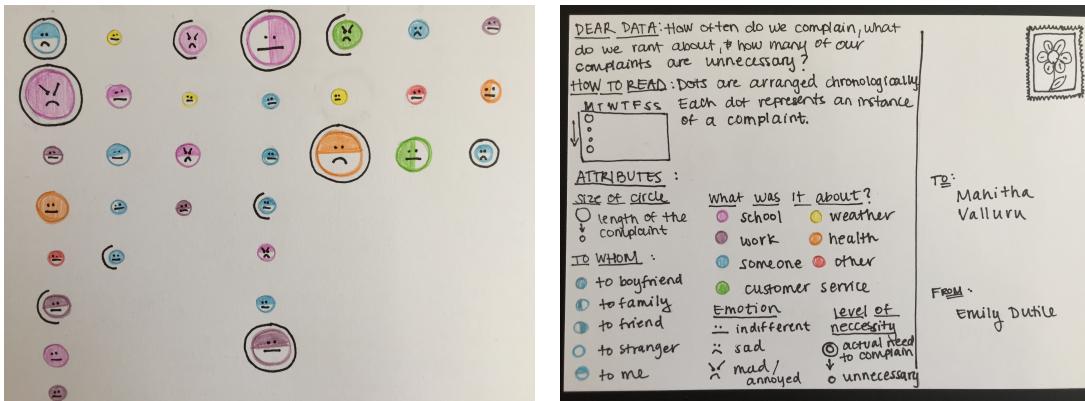


## Homework 5

The dataset used for this assignment can be found here <sup>1</sup>.

### 1 Dear Data

#### 1.1 My Visualization

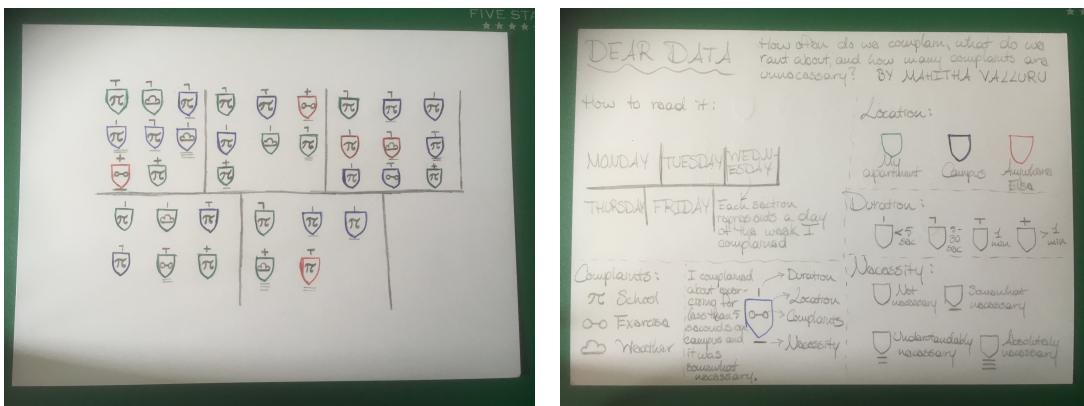


My dear data assignment was to analyze how often I/we complain, what do I/we rant about, and how many of my/our complaints are unnecessary. I decided to keep track of each instance that I caught myself or someone else complaining. I wanted to see whether it was me who complains a lot to others, or do I allow others to complain a lot to me. Any time I/someone else expressed annoyance, distastefulness of a situation (unnecessarily), or anything else that resembled a complaint, I kept track of who was doing the complaining, what was the subject, what was the persons emotion, the length of the complaint, and the necessity of the complaint. I was curious to discover if we complain more in certain environments or when we are around certain individuals. I subjectively decided if I thought the complaint was legitimate or if I found it unnecessary (i.e. calling Comcast and asking why they randomly increased fees when you're in a contract is an actual complaint, where as complaining to have 'nothing to wear' to some event is unnecessary and dramatic). I wanted to design a visual model that could easily show the amount of complains with respect to their topics and how necessary they were. I felt that using instances of circles would easily represent each point and giving them different sizes would appropriately show the length and the level of the complaint. Using color, it made it easy to show who's doing the complaining, and the fill represents the listener.

In comparison to my HW4 card, I really thought about what I may complain about in a given day which helped me better understand what I thought would be more important data attributes to emphasize. In my first assignment, I had a topic that I didn't necessarily think about all the time. In some ways I felt like I collected too much data, and the visualization became noisy and more difficult to consume with so many colors and points without overly clear cut lines.

<sup>1</sup><https://catalog.data.gov/dataset/energy-generation-by-state-and-technology-2009>

## 1.2 Pen Pal Visualization



Mahitha Valluru made a visualization that looks very similar to the one she made previously in order to make it easier to compare to the first one. She kept track of each instance she got upset and complained for every single day and decided to group these complaints into days of the week. She then encoded them into how long the complaint was and whether or not they were necessary. This time she had three symbols (school, weather, and exercise) for convenience and she felt like the symbols match what they represent. Again, she chose to use colors, shapes, and points for her marks and channels. Using 3 colors to identify the 3 locations, its easy to tell where she was when her observation occurred. I really like her use of shapes to give insight into the specific instance, giving more details on the complaint such as duration, necessity, location, and subject. I chuckled at the fact that we both seemed to find ourselves or others complaining about school a fair amount. It was interesting to see that we both found relatively few instances that we found our complaints to be necessary. The symbols used made it really easy to know what the subject was, and the use of the 3 colors was easy to remember your location. I thought it was interesting how we both kept track of the duration of the complaints. Using tick marks could have been a tad more straight forward to show an increase in time/duration, but overall I think it was a great reuse of the original idea with the chosen color map.

## 2 Brushing and Linking

I have two versions because I had a bug in my code with the reverse brushing. The first URL allows you to brush on the scatter plot and on demand details are shown in the bar chart. The second URL is to show the brushing from bar chart to scatter plot, but it is currently broken.

Working JS Fiddle (URL): <https://jsfiddle.net/dutile/vnv7op6s/66/>

Work In Progress JS Fiddle (URL): <https://jsfiddle.net/dutile/vnv7op6s/80/>

Focusing on the EIA Generation and Fuel Data, I wanted to look at the net generation (megawatthours) and the total fuel consumption quantity with respect to the number of plants in the state(s). I didn't find it necessary to add a lot of color, besides to the points that the user was brushing over in order to make them stand out along with highlighting the bar the user is hovered over for details on demand. I think a more simplistic approach makes the visuals clean and doesn't add noise to the visuals by adding dimensions or colors. Depending on how many data points the user selects, the JS Fiddler viewer is not ideal to view all of the states since they get scrunched together.