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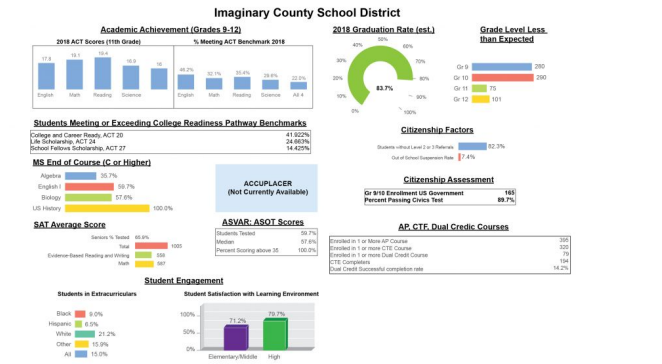
CS 171: Visualization
Homework for Module 4
September 27, 2020

Design Critique (Required):

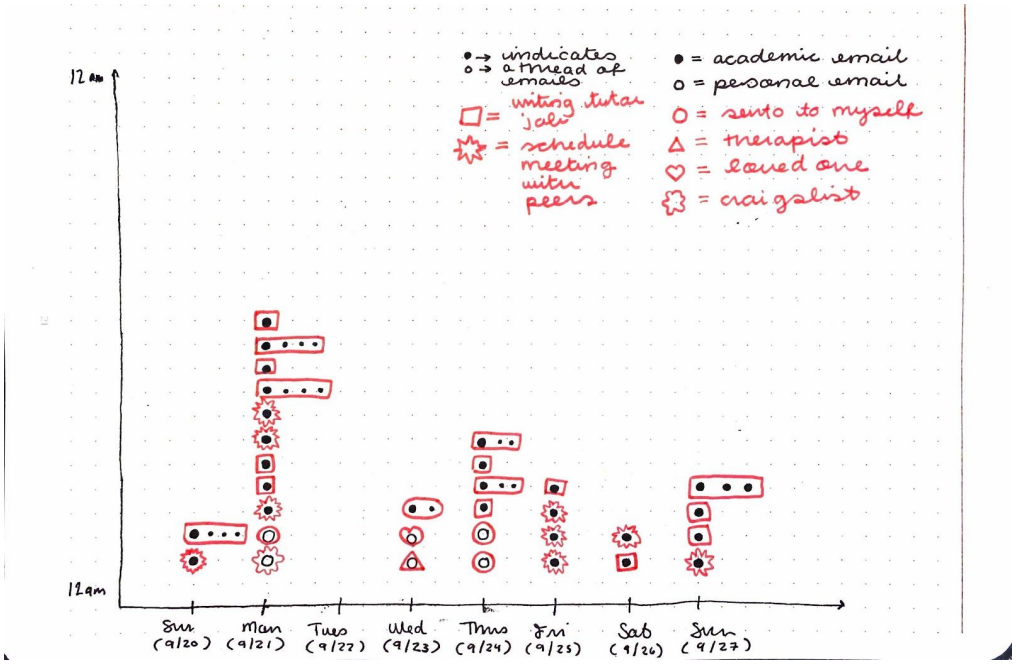


In terms of the CRAP and Gestalt principles, the first thing I noticed was that this infographic suffers from a lack of alignment and proper treatment of proximity. It is difficult for the viewer to discern what information is most relevant or important to emphasize because there is little to no hierarchy, only subtitles that don't seem to really organize the visuals in any meaningful way. Additionally, the infographic uses repetition of color/type across some of its bar charts but not others, which confuses the messaging and any means of comparing the collected data sets to one another. In turn, some of the data, like College Readiness Benchmarks or Citizen Assessment, has not been visualized at all. In these terms, I think the visualization would benefit from some enclosure or similarity principles to group relevant data within the larger composition.

Similarly, if we apply Edward Tufte's approach to effective visualizations, we can see examples of both the "graphic integrity" and "keep it simple" principles. While the individual graphs are fairly simple in their respective layouts, their combination in the larger layout overcomplicates the delivery of the data. Some graphs have vertical bars, others have horizontal bars, and there is even a strange, circular chart that appears to be visualizing a singular data point (a graduation rate of 85%) with more real estate than

is really necessary. This particular chart also taps into the notion of “graphical integrity” because it skews the viewer’s perception of the data’s value in the context of the infographic. The 3D bar chart in the bottom-middle of the layout also illustrates this principle, since these types of graphs tend to apply greater visual weight to certain data points over others. Overall, though the title suggests that the layout covers all the relevant data associated with a certain school district, it isn’t clear exactly which problems or topics the author is interested in addressing or unpacking with this effort.

<u>Dear Data Postcard (Bonus):</u>



I decided to visualize all the emails I sent in the past week, in part because it was easy to collect this data at the end of the week rather than physically record it throughout the week. I have two main email addresses - my personal Gmail one and my academic Harvard one - and used the same channel for both (circle) but differentiated their markers by color and fill (a transparent circle with a slight lineweight for the former and a filled black circle for the latter). For each day, I stacked the quantity of emails vertically to show their fluctuation in volume over the week. I also assigned a secondary category/marker for each email based on its topic or to whom I sent it. These markers

enclose each circle with varying shapes in red, so while the primary category is still visible, the secondary category remains visually distinct due its line color. Additionally, I visualized whenever a sent email resulted in a thread between myself and the receiver, listed horizontally across the page.

In doing this exercise, I realized that I haven't sent nearly as many as I would have thought, and this is because I communicate with classmates predominantly over WhatsApp. I communicate with people for my writing tutor job and for sending/receiving meeting invites over email. If I had also visualized the number of emails I receive on a weekly basis, the viewer would be bombarded with all the spam/promotional emails I get to my email account and the school-wide emails I get to my Harvard account. This will be my next challenge as a designer!