DATA73200: Interactive Data Visualization Class Portfolio Reflection

Major Design Decisions

My design decisions were a bit haphazard, so I welcome feedback on them. In general, I am pleased with the overall layout of both my projects and the rendering of the graphs, but I am not sure if it all works together. There is a certain "professional" polish that is missing, but I am not sure the right approach to address that.

For my exploratory project, I really like the way the bar charts turned out, as well as the side panel with information about the politician, yet it doesn't totally feel unified. For my narrative project, I am again, pretty pleased with the way the visuals turned out, but do feel like there are design elements that I am missing to tie it all together and make it a pretty little package. I still lack good planning for those kinds of things. How do I make people looking at it say: wow! That's cool. I would say that is perhaps also my biggest challenge (besides turning the projects in on time).

Difference from Prospectus

I did not have the time to execute my original vision of doing the analysis of real estate donors for my narrative project. This is still a project that I would like to pursue, especially if I can get the buy-in of some local reporters that the data will "see the light of day." However, with all of the data clustering that I did in my first project, there were plenty of stories to be told. This is what my narrative turned out to be, about the number of donors, the biggest donors and who got the most money. I was possibly going to do a small analysis of Cuomo's real estate donors, but with the nursing home liability story that broke last week I was moved to look instead at the healthcare organizations that were protected from liability by his last-minute budget addition. I am hopeful that the connection to our current times makes my data seem more relevant to the reader.

Feedback and Iteration

The critiques were very helpful for me even though I didn't have a working prototype for either one. For my exploratory project, the feedback to try to incorporate more context about the politicians, including their donations over time and some summary information about their donations was very good and I am very glad that I did that. For my narrative project, I am very glad that I was pushed to do a scrolling story instead of a tabbed approach.

Once I had a prototype of the scrolling story, I showed it to my partner. The story originally started with the biggest donors. Her feedback was to include the larger context within which the biggest donors are at play, including the proportions of donations and the amount of money they represent. I think that including those at the beginning of my narrative does really help to make the story I have to tell a complete story arc.

What I learned

I learned a lot of helpful things from these projects. One of the first helpful things I learned how to parse files from the New York State board of election's website. While I had previously written python scripts to parse fixed-width files, like census' ".dat" files, I had not dealt with

".asc" files like the one from the Board of Elections. It was a new challenge for parsing, and now I have scripts that can handle them.

Additionally, I got to experiment with lighter ways for doing state management in small applications besides react/redux, which is the JavaScript framework I had developed in the most. I am very pleased with how performant my exploratory project is despite the relatively large amount of data involved. There was a moment where I wasn't sure the vanilla JavaScript implementation of state management was going to work because I was getting a feedback loop of components updating. I added the limited, "key"-based subscriptions to subsets of the overall state for updating and thankfully it did the trick. I think probably the redux implementation of state reducers is more elegant than this, but it also requires a bit more code. It did lead me to have to have the placeholder "Click this to see something here" prompts in a component that is separate from the components they are placeholders for which violates the rules of componentry.

Of the d3 functions, I am glad I am now pretty comfortable with the d3 rollup and group functions. I also really got to understand the d3 chromatic use through my project one use of one donor per color.

Programming aside, I also learned a lot about the broader picture of donors and campaign finance in the state. Reviewing the donors gave me a much bigger context of who participates in political campaign contributions.

What worked out better than expected

Now that I understand the d3 syntax and am familiar with the logic, experimenting with new chart types and implementations via observable notebooks is very easy and I was able to leverage it for both projects. For my first project I made a notebook that allowed me to quickly go through all of the district maps of the state legislature and generate the png image for the districts. This saved me a lot of time.

In my second project, when I decided I wanted to do a network of the donors to Cuomo. I found an example network graph from Mike Bostock and was able fork it and get it up a functional very quickly. I used python to convert my data to the same format as his and thus was able to quickly plug my data in and then mess around with the forces to get it displaying decently. I was expecting that process to be a lot more painful.

If I had More Time

If I had more time and resources to spend on my exploratory project, I would improve the search and adding politicians to allow users to look up politicians by borough and perhaps a map where they can click on a district. In general, I would work to make that part of the application look more "modern." I would also create a more detailed summary of the donations, allowing people to filter by year and in the highlighted donor panel at the bottom showing some other statistics about that donor's overall donation pattern.

I would add a toggle so that instead of displaying by politician you could display by donor. On both views I would add a search feature for donor so that you could look up a specific donor. I would also like to do the analysis to be able tag the donors by type and allow you to filter on the types.

If I had more time to spend on my narrative project I would improve the application design. It is still a little buggy if you scroll too fast. I was hoping that bundling the data in with the JavaScript would improve performance, but it is still not great. As mentioned above, I would consider different overall options for design that would incorporate the different sections into a cohesive whole.

I also basically ignored the transition functions of d3 for both my projects. I would try to be more thoughtful about when to use this. I think a good place where this could be implemented is in the different bubble charts in my narrative project.