SI649 Individual Project Communicative Visualization

Fall 2020

The individual project is focused on communicative visualization. The article we have selected for you is about the Winter Olympics--specifically why Norway has done so well despite having a small population. There are numerous interesting bits in the article that could use visualization support, but no visualizations are included! There are lots of good datasets for you to utilize and also opportunities for you to expand the scope of the article (e.g., What makes countries good? How do you measure good? When do countries outperform expectations? etc.) Your job will be to design visualizations to accompany the article (or an expanded version of it).

The project will have two parts.
- A static version (due October 27th) -- The first will be a static version and a short report explaining your design decisions and process.
- A dynamic/interactive version (due November 10th) -- This second version will be an interactive page delivered on the Web and a short report explaining your design decisions and process. We'll also ask you to upload a short video showing your interactive vis in action.

Here's the starting article: *Why is tiny Norway totally dominating the winter olympics?*
https://www.theringer.com/olympics/2018/2/21/17036496/2018-winter-olympics-norway-medal-dominance-wealth

Peer Review

We will also have a peer review as intermediate deadlines so you can show off your progress to a few of your peers for feedback. This will happen the week of October 19th for the static version and the week of November 2nd for the interactive. During peer review you do not need to present finished ideas but you should at least have a sketch of what you're up to. More on this soon.

Deliverables

You will be turning in:
- Static version: a high resolution image or PDF of your vis and a "blog" entry describing your report (more below). You can either use a full page format (roughly 9" x 11") or spread (roughly 18" x 11"): https://nytmediakit.com/nytmag-guidelines. You are welcome to develop this using any software (we suggest using Illustrator, Figma, Inkscape, or even Powerpoint).
- Interactive version: The code to your site and instructions on how we can run it (you can *also* give us a URL if you are hosting it yourself). You will also turn in a seperate "blog" entry for this part. You can use things we've already covered: Streamlit, Tableau, etc.

(we'll give you more information about how you can deploy these soon). But you're also welcome to use D3, Idyll, or whatever else you want. You must include interactive elements in the site that support the communicative nature of the visualization.

You may develop both static and dynamic versions together so there's a consistent look and feel, but you're also welcome to have two very distinct efforts. For an example of a consistent look and feel you can take a look at print edition:
https://www.snd.org/wp-content/uploads/2010/01/nyt-netflix-print.jpg and interactive versions:
https://archive.nytimes.com/www.nytimes.com/interactive/2010/01/10/nyregion/20100110-netflix-map.html of this NYTimes article (you might need to enable Flash to make the interactive version go).

We do not have any specific guidance on the number of visualizations you create. If you build something complex (e.g.,
https://us.gestalten.com/blogs/journal/visualizing-a-new-new-york-times) one visual is likely fine. If each sub-visualization is simpler, you should think about using more elements
(https://www.webdesignerdepot.com/cdn-origin/uploads/infographics_maps/maps-12.jpg)

Blog Entry

For your process blog entry: We'd like for you to walk us through your design. Things you need to explicitly cover:
- Your learning objectives (2+). You can use the visualobjectives.net site to help you design these. Remember, these are objectives for your design *after* the person has viewed it and it was taken away. For example, we **don't** need to know what the viewer will be able to "read" but **do** need to know what they'll remember.
- Your design process. What did you try? (screenshots please) What examples did you look at for inspiration (again, screenshots)? We expect that you iterate over multiple multiple sketches/designs before you arrive at your final solution. You should describe what you liked or didn't like about your design.
- Why you think your final design is good. You should explicitly connect to principles you learned in class (design, perception, cognition, interaction, etc.)
- How you would assess/evaluate your design (you don't need to implement this assessment, just describe how). Consider your learning objectives but also the nested model (we'll learn about that in Week 7).

Here is an example process blog:
https://www.visualcinnamon.com/2019/04/designing-google-cats-and-dogs.html. There's more on the data processing here and clearly nothing on learning objectives, but hopefully this gets you thinking.

Rubric

For both deliverables, we will be looking at:
1. How well you fulfill the learning objectives you define
2. How good the implementation is (functionally and aesthetically)
3. A good report (clear demonstration of design iterations, good justification for design choices using course principles)
4. Sophistication
5. Creativity (this last one falls more into the "bonus" category--a creative but non-functional vis isn't a good idea).

You are a Data Journalist

A short word of caution: you are a data journalist for this exercise. You have two roles. The first is as an analyst. Here, you should find interesting things in the data (some we've already given you in the article content). The visualizations you use to find interesting things should not be your final deliverable for your second role: a communication designer. Only use/create those visualizations that are important to your learning objectives. Remember that the viewer did not go on your exploration trip with you (nor should they!). Don't assume they know everything you've seen/tried and definitely don't assume they are interested in all the visualizations you experimented with.

Data Please?

To get you started, here are some datasets. You are not obligated to use all (or any!) of these.
- NYtimes - Olympics 2018 Medal Results
  https://www.nytimes.com/interactive/2018/sports/olympics/medal-count-results-schedule.html
- Kaggle - Olympic Results Over Time compared to Human Development Index
  https://www.kaggle.com/the-guardian/olympic-games
- SpeedSkatingStats.com - Winter Sport Related Facilities
  http://www.speedskatingstats.com/index.php?file=rinks
- 120 years of the Olympics:
  https://www.kaggle.com/heesoo37/120-years-of-olympic-history-athletes-and-results
- Feel free to find more datasets and you're more than welcome to share your finds with others!