CSC/SDS 109: Communicating with Data

Fall 2024

HW 04: Stories

This is a pair assignment! (It's an amount of work for two (or three) people!)

Goals:

- Tell a story with data on Tableau

Instructions

Part 1: Choose a Topic and Dataset

Spend a few minutes thinking about a real-world issue that is important to you. You may want to start with a quick written reflection on this issue or talk with a friend about it. Try to pick something that you feel invested in - this will make for a more compelling story in the end!

For example: if Ab was working on this assignment, they might think about the history of women's running in the US (they love running). How has the landscape of women's running evolved? What people, institutions, laws, etc. have impacted women's running?

Once you have found a topic you feel invested in, look for datasets that will help you tell a good story about that topic. It may be that you don't find a perfect match between a dataset and the questions or themes that came up in your initial reflection - that's okay! The ideas you explore may evolve based on the data and supplemental information you have available.

Be sure to read any documentation about your datasets to make sure that you understand what each dimension or measure contains, as well as any information about the history (or "provenance") of the data - who collected it, when, and why? As before, you are free to use any dataset(s) you want.

For example: Ab might decide to focus on Boston Marathon finisher data, and would (at a minimum) read about the history of the Boston Marathon. They would need to do significant data cleaning on the finisher data.

Part 2: Create Visualizations

Now that you have identified your data sources, it's time to create a few visualizations. Start by developing some questions, grounded in your understanding of the dataset from reading its documentation. Then, design visualizations that help you to answer those questions. You may want to start by sketching the visualizations you want to make before you start implementing them, rather than letting Tableau drive your design choices.

For example: Ab might decide they want to see if number of women finishers increases over time and how Title IX effected that number. They might sketch a linechart showing year on the x-axis, number of women finishing the Boston Marathon on the y-axis, and a vertical line marking the year Title XI went into effect. Maybe they later decide it's more important to see the proportion of finishers who are women, to separate out the effect of increased overall participation in the marathon, so they modify their sketch to show proportion of finishers who are women on the y-axis. Ab will repeat this process several times, making different visualizations to help answer several different questions.

Part 3: Tell a Story

Finally, organize your visualizations into a Story on Tableau. Consider using captions, annotations, filters, or other techniques to provide context and guide the audience's attention. You might find that you do not need to include all the visualizations you created in your story - some of them might serve as part of your own exploratory process, but not make that "final cut" into the story itself--this is fine! You will need a minimum of 4 visualizations in your story.

To complete this assignment, please publish your workbook to our Tableau Online Site. On Moodle, submit a brief (~250 words or less) justification of your story design as a PDF: who is it for, what is the "point" of your story, and how do your design choices support you in effective storytelling? Please also add a link to your story on the Online Site.

Submission

Submit your deliverable(s) as a PDF on Gradescope. If you worked with a partner, submit as a group (https://guides.gradescope.com/hc/en-us/articles/21863861823373-Adding-Group-Members-to-a-Submission).

Rubric

The following matches the rubric you will see on Gradescope.

	Points	Criteria
	1	Submission is well-formatted and easy to read.
	1	Design justification follows theory covered in lecture.
	4	Story includes at least 4 visualizations (1pt. per visualization)
	4	Each visualizations uses and appropriate data → visual mapping (1 pt. per visualization)
	4	Each visualization makes a point that contributes to the story (1 pt. per visualization)
	1	Story uses a narrative structure from lecture
TOTAL	15	