Data Visualization

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Objectives:

1. The goal of this lab assignment is for students to distinguish between good and bad data visualizations using real-world examples. Through practical examples and observations, students will gain an understanding of when to use which data visualizations and how best to implement them.

Complete the following problems

References, a video, a PowerPoint and some notes are available at my website https://www.aholdengouveia.name/IntroData/datavis.html

Examples of good Data Visualizations

- Information is Beautiful https://informationisbeautiful.net/
- Storytelling with data https://www.storytellingwithdata.com/b log

Examples of bad Data Visualizations

- WTF Visualizations: Visualizations that make no sense https://vi z.wtf/
- r/dataisugly https://www.reddit.com/r/dataisugly/

Evaluate visualizations

Using the guidelines from this website https://web.archive.org/web/20 230713094315/https://www.interaction-design.org/literature/art icle/guidelines-for-good-visual-information-representations#t ufte%E2%80%99s_criteria_for_good_visual_information_represen tation-1 and the materials from this week, answer the following questions. Make sure to use a table to breakdown your answer to ensure it hits each of the guidelines. An example is attached to this lab.

- 1. What was your favorite Visualization? Why?
- 2. What was your least favorite Visualization? Or most aggravating Visualization?
- 3. Which of the bad examples did you find most humorous? Why?
- 4. From the good examples, pick one you like that you haven't already evaluated, we're going to look at the accessability of it. Name 3 ways you can make this visualization more accessible. Create a narration of the visualization and an appropriate alt text. Your narration can include a video. One easy way to do this is create a screen capture video using something like OBS, and uploading it to a site like YouTube and making it unlisted so you can just share a link.
- 5. Go to https://www.economist.com/graphic-detail, do you think in general, this link belongs in the good or bad category? You don't need to evaluate every visualization, just look through the first page or two, and explain in a paragraph which one you think this link belongs in, why, and include screenshots of the visualizations you picked that support your opinion.

Create your own Visualizations

- 1. Going back to the Halloween candy data, pick 1 thing that you think would be better illustrated using a visualization. Create your visualization using whatever software you like, this could be an online chart maker, or a spreadsheet or anything.
- 2. Explain why you picked that 1 thing, and explain how you decided which visualization to use and why.

- 3. Go back to the data you collected/found and pick 2 things that you think would be better illustrated using a visualization. Create your visualization using whatever software you like, this could be an online chart maker, or a spreadsheet or anything.
- 4. Explain why you picked those 2 things from your data, and explain how you decided which visualization to use and why.

Deliverables

- 1. A document with answers to each of the above questions evaluating other people's visualizations. Make sure to fill out the attached table for each of the 5 visualizations you picked.
- 2. A document for your visualizations, the document should include Screenshots (do not just upload multiple images to blackboard) of the 3 visualizations that you created. Each screenshot should have the explanation of why below it.