Mini Project

Real-World Visualization Analysis

DAT-230 Data Visualization & Storytelling with AI

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Project Overview: Visualization Critique & Presentation

Title: Real-World Visualization Analysis
Assigned Date: 08/28/2025
Due Date: 09/24/2025
Presentation: 09/25/2025 Live in-class, 8–10 minutes

Introduction

This activity immerses you in authentic data visualization artifacts. You will collect two existing visualizations (screenshots or photos from sources you encounter in daily life), critically dissect their design, and articulate what works, what could be improved, and what questions you would ask the creator. The final product is a 2-3 slide summary accompanied by a live oral presentation.

Learning Outcomes

By completing this mini project, students will be able to:

- Analyze real-world visualizations to identify underlying variables and structural choices.
- Evaluate chart types and design elements for clarity, effectiveness, and potential misleading encodings.
- Pose informed inquiry questions about the creator's decisions and data representation trade-offs.
- Synthesize insights into a concise single-slide presentation with coherent narrative.
- Communicate analysis both in writing and orally, adhering to timing and audience engagement expectations.

Minimum Requirements

1. **Source Material:** Select **two distinct** real-world visualizations. These must be captured images (e.g., screenshots from news graphics, posters, social media, TV, etc.). **Do not generate** your own visualizations—only use existing ones. Example visualizations:

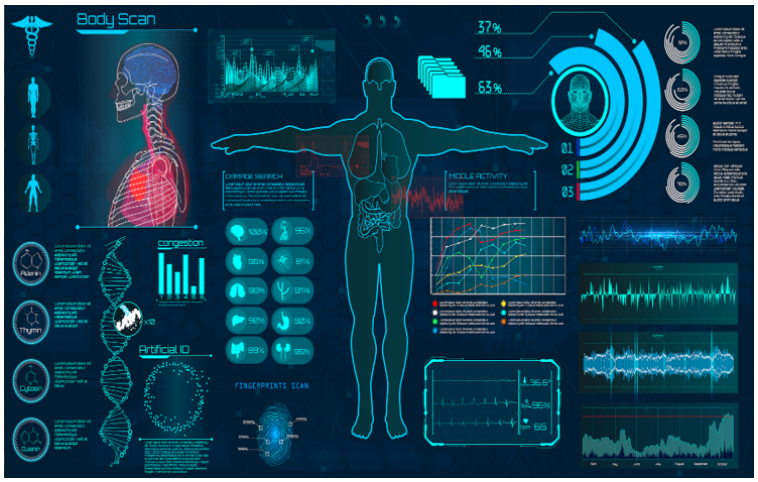

Figure 1: Example for an unclear visualization

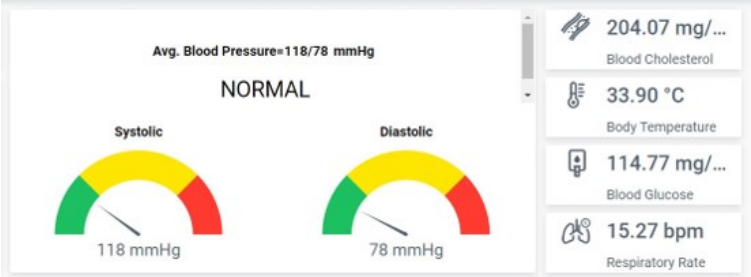

Figure 2: Example for a clear visualization

2. For **each** visualization, provide the following on the slide:
   (a) **Variables Visualized:** Briefly describe which data dimensions or variables are present.
   (b) **Chart Type:** Identify the chart (e.g., bar, line, scatter) or describe its form if the formal name is unknown.
   (c) **Interpretability Evaluation:** Assess how easily the chart can be understood. Specify which design elements (colors, shapes, axes, annotations, legends, layout, etc.) help or hinder comprehension.
   (d) **Inquiry Question:** Pose one thoughtful question you would ask the original creator about their design choices, data sourcing, aggregation, or communication intent.

Deliverables

1. A PowerPoint slide (`.pptx`) containing the analysis for both visualizations, structured clearly with the four required subcomponents per visualization.
2. A live in-class presentation of your slide, lasting between **8 to 10 minutes**. You must attend all peer presentations to receive full credit for the participation component.

Grading Rubric

#	Criterion	Points
1	Submission of a properly formatted `.pptx` file on time	10
2	Two distinct visualizations analyzed (no duplicates, clearly separate sources)	15
3	Accurate identification of variables and chart types for each visualization	15
4	Depth and specificity in interpretability evaluation (design strengths/weaknesses)	15
5	Quality and insightfulness of the inquiry questions (shows critical thinking)	10
6	Logical organization, clarity, and visual balance of the slide (readability, labeling)	10
7	Verbal presentation clarity, pacing, and adherence to length (8–10 min)	10
8	Engagement with audience and handling of questions during/after presentation	15
	Total	**100**

Presentation Length Policy

The presentation must be at least **8 minutes**. If the presentation is shorter than 8 minutes, a penalty applies:
Penalty: 12.5% deduction of the presentation component for each full minute below 8.
Example: An 6-minute presentation is 2 minutes short, incurring a 25% deduction.

Expectations & Tips

- Keep the slide concise but complete; use headings or visual partitions so each required element is easy to locate.
- Practice your talk to hit the 8–10 minute window with time for a brief audience interaction if applicable.
- Be specific in critique: avoid vague phrases like "looks good" or "confusing"—explain what exactly aids or obstructs understanding.
- Your inquiry questions should go beyond "What data did you use?"—aim for design rationale, aggregation choices, audience assumptions, etc.
- Attend all peer presentations; notes or participation may factor into engagement scoring.

Submission & Logistics

- Upload the `.pptx` file to the course submission portal by the stated deadline.
- Be prepared with any necessary equipment (laptop, adapter) for the live presentation.
- If you miss the live peer session without an approved excuse, you forfeit the participation/engagement points.