SI649 Narrative Visualization Project, Winter 2025

The final project in this course is about using interactive visualization in combination with text to provide an overall narrative experience to the reader. This is similar to the first project, except that it will be done in groups, and we are asking you to start from scratch, and giving you broad latitude to pursue a topic of your choosing, aimed at a general reader.

At a high level, your goal is to write an article or report on a topic (like a blog post or a data journalism article) that uses integrated interactive visualizations to complement and enhance the overall reader experience. Your project can take the form of either a **data journalism** article, or an **explorable explainer** (see below).

Group Size: This project can be done in **groups of two or three people**.
Proposal deadline: Thursday April 3rd
Preliminary presentation dates: April 15th or April 17th at 4:00pm
Final project deadline: Friday April 25th

1. Overview

As we will discuss more soon, visualizations can be used to create compelling narrative experiences and effectively communicate complex topics. Indeed, numerous outlets, such as The New York Times, FiveThirtyEight, The Guardian, The Pudding, and many more, provide a wealth of examples for inspiration.

For this project, we want you to create such an article, in which you will both write the text and design and create the visualizations, which will mutually support overall communication or explanation of an idea. The length should be comparable to a standard news article (such as in an outlet like The New York Times), and you will likely want to include 2 to 4 interactive visualizations, depending on the complexity of each.

You are free to write your article on any topic of your choosing, including one on which you already have some expertise. However, it should be new content that you are producing for this project, not reusing text you have already written elsewhere. Depending on the topic you choose, you may need to carry out some additional research, and we will expect you to **cite your sources**.

2. Types of Projects:

There are two possible types of articles you can consider:

1. **Data Journalism**: This approach uses text and visualizations to describe an issue to the reader or narrate a real-world story in a data-driven fashion. For example, type of article might be used to present coverage of a historical, political, or social issue.
2. **Explorable Explainers**: This approach should use text and data visualizations to help the reader understand a complex idea. These are often used to explain scientific or technical topics, and illustrate or demonstrate how things work in an interactive fashion, sometimes using simulation. Here, the expectation is that you would incorporate your interactive data visualizations within a written explainer on the topic, where the text and the visualizations support each other in helping the reader understand something.

3. Deliverables

1. **Brief initial proposal** (Due Thursday April 3rd, 2025): Form a group of two or three people and decide on a topic. Together, write a brief proposal containing **project title**, **group members** (names and uniqnames), a **short description** of your proposed project (one or two paragraphs). If you want, feel free to include potential data sources, and preliminary sketches.
2. **Preliminary presentation**: During **one** of the lecture sections (on April 15th or 17th), your group should give a preliminary presentation (see details below). Not every group member needs to present, but everyone should attend at least one of the two lab sections that week.
3. **Final submission (online)**: Your final submission should take the form of an article with integrated interactive visualizations (either a data journalism article or an explorable explainer), hosted somewhere online (e.g, Tableau public, Streamlit, HuggingFace, Github pages, etc.). Please *double check that this work, even when you are not logged in* (e.g., using a browser in incognito mode, or having a friend test it).
4. **Final submission (Canvas)**: It is recommended that you upload a static version to canvas as a pdf, but either way, make sure to include a **clear pointer** to where your online version can be found (e.g., a clearly marked URL). For this project, you are **not** required to submit a

separate report describing your design process, so your work should be self-contained (i.e., the text should be understandable by a general reader; include a header or title, etc.)

5. **Implementation**: In addition a static version of your online project, please also submit your underlying implementation files, either in the form of code (e.g., Altair, etc.), a Tableau notebook, or similar.

4. Preliminary Presentation

Close to the end of the term, we will do preliminary presentations in the lecture sections. You are not expected to be finished at this stage. Rather this is a chance to demonstrate progress and get input from your classmates. These will be short presentations (around 5-10 minutes, with exact timing to be determined) that should include:

- the goal of the project
- how you will differ from other similar work on the topic
- your current progress (including prototype sketches, preliminary implementation, or interim findings)
- plan for remaining work
- what you would like feedback on

5. Evaluation Criteria for Final Submission

For the final submission, we will use the following evaluation criteria:

1. **Insight and Contribution**: How clearly and comprehensively does your interactive article explain the topic it is focused on? How much does the reader learn from engaging with your work?
2. **Clarity, effectiveness, and functionality**: Is the purpose of each visualization clear? How effective are your visualizations for what they are trying to communicate? Are the interactive components of the visualizations operational and easy to interact with?
3. **Design and attention to detail**: How well are the text and visualizations integrated in support of the learning objective? How well designed are the visualizations?
4. **Style and Aesthetics**: Have you used good design principles and considered human perception and cognitive limitations in designing your visualizations? Have you used a cohesive aesthetic throughout?
5. **Creativity and effort**: How interesting or ambitious is your project? Does it reflect a considerable amount of effort?
6. **Writing**: How well written, detailed, and clear is the accompanying text?

6. Examples

You can find many great examples of data journalism and explorable explanations online (and you are encouraged to look for more). Note that the following use a range of techniques, but the focus for your project should be on combining **written text** and **interactive data visualizations**. To get you started, here are some examples that you may want to look at for inspiration (which is not to say these are all necessarily good or successful):

- Cross-examination of a human right (Medicamentalia, link)
- How America's Thinking Changed Under Obama (FiveThirtyEight, link)
- Following the Science (The Pudding, link)
- Visualised: glaciers then and now (The Guardian, link)
- Lionel Messi Is Impossible (FiveThirtyEight, link)
- Who's In The Office? The American Workday In One Graph (NPR, link)
- A Really Small Slice of Americans Get to Decide Who Will Rule the Senate (Bloomberg, link)
- Explorable Explanation examples: https://explorabl.es/all/
- More Explorable explanations: https://github.com/blob42/awesome-explorables