

## Assignment 5. Geo-Data Journalism

Due December 1 11:59pm

Worth 15 points

In teams, visualize geographic data with a non-cartographic technique available in D3JS and using scalable vector graphics (SVG). Write a brief online newspaper article—tell a story—that utilizes the geovizualization.

Some d3.js resource pages: <https://d3js.org/> , <https://observablehq.com/@d3/gallery> , <https://d3-graph-gallery.com>

### Goals

- Learn and Implement SVG
- Conduct problem-based research/investigative journalism using Javascript-enabled data visualization
- Investigate data visualization approaches that expand our notion of what it means to “map” geographic data
- Continue to gain experience in webpage design and geoweb mashups by constructing a website that appropriately displays your story and visualization
- Individually reflect on the assignment

### Tasks

1. Conduct investigative journalism that requires data visualization.
  - a. Choose an issue that would benefit from better visualization of the data AND an alternate way of visualizing the data (i.e., not a cartographic-based visualization).
  - b. Choose one or more geographic datasets. Remember a geographic datasets is any dataset with some georeference. It need not be a shape file.
  - c. Write a newspaper article that uses your dataset and its visualization. The article should be no more than 500 words. What do your dataset and the visualization of that dataset help inform?
  - d. Note: You will receive a better mark if you choose an interactive visualization (e.g., visualization moves or displays information when you hover over something) than if you choose a static visualization, although a strong justification for your choice will make up for a lack of interactivity.
2. Your visualization has two components: the website and the visualization on that page.
  - a. Your webpage is part of a fictitious newspaper. Your specific page contains the article and the related interactive visualization
  - b. Add at least one **custom** control to your visualization. This/these should be in the form of a button type object (checkbox, button, slider, etc). This must be something you write yourself and NOT part of the original visualization code you copied.
    - Figure out what you want this/these custom control(s) to do. Maybe highlight the top or bottom 10 items, zoom in on certain areas, or change color schemes.
  - c. Your webpage must be hosted on your group’s neogeoweb.ca site
  - d. Make sure there is no copyrighted material on your webpage. You will want to look for creative commons. At minimum, make sure the images are carefully attributed.

- e. Take a screenshot of your webpage displaying the most interesting part of the visualization.📷



- f. Document your code.

3. Your team needs to document your visualization in a report. That same report needs to include your individual reflections. In a typed word document your team should provide the following information:

- a. Describe the decisions you made in choosing your topic and visualization.
- b. Report on up to three different visualizations you considered before you chose the visualization you did.
- c. Defend your visualization choice. Argue why your choice may be superior to a cartographic approach.
- d. Report on any challenges you had in implementing code from d3js.

Individually (each approximately three-quarters page):

- a. How would you use other non-cartographic visualizations to cover the same topic? Describe at least one in some detail.
- b. Reflect on working with visualization, both D3JS and alternate ways of visualizing geography. What are the strengths and weaknesses of both?
- c. Report on the visual encoding choices (there may be others than the ones mentioned in class—make sure you cite as necessary) you considered but could not implement.

Upload the files to [neogeoweb.ca](http://neogeoweb.ca). Send the HTML via email to [renee.sieber@mcgill.ca](mailto:renee.sieber@mcgill.ca) and [nicolasdossantos@mail.mcgill.ca](mailto:nicolasdossantos@mail.mcgill.ca) Include in the subject line “Geog 384 Assignment 5”.

#### **Note**

You may be tempted to use a program that generates a product for you (like a story map). This will be frowned upon. Create a website and visualization with an HTML/JS framework that you have written yourself. It should (1) appropriately display your article and (2) embed a supporting visualization that you have adapted from a D3.js example. The website and accompanying JS does not have to be professional, but, at this point in the class we expect some “elegance” in your code (i.e., readability, flow and efficiency in coding). The same elegance applies to the website. Remember that you are essentially storytelling using your article and its supporting D3 visualization. The underlying code should be comprehensible six months after the course is over.