

FIT3179

Data Visualisation 1

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Lab: 8

Word count: 388 words

Visualisation URL: <https://exo329.github.io/3179/DataViz2/>

Github URL: <https://github.com/Exo329/3179/tree/main/DataViz2>

Domain

My domain is climate change.

In particular I focussed on how CO2 emissions and temperature changes vary throughout the world.

What

I downloaded my [temperature change data from Kaggle](#), [CO2 emissions data from Our World In Data](#), and [map data from Natural Earth Data](#). I processed my temperature change and emissions data using a combination of regex find / replace in Visual Studio Code and functions in Excel. I processed my map data using [Map Shaper](#).

Why and How

I wanted to explore how global warming is affecting different cities, and how much different countries are contributing to CO2 emissions.

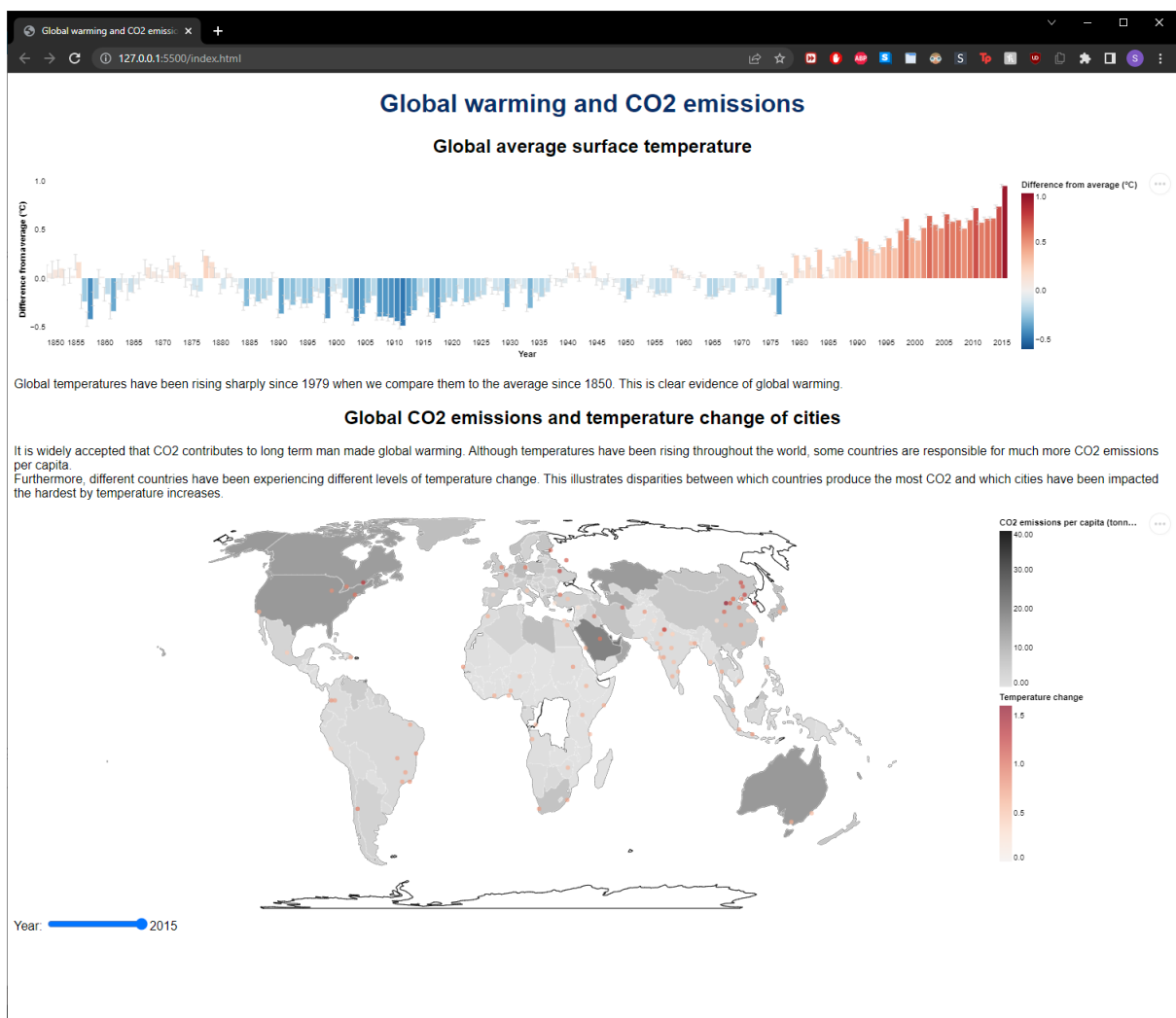


Figure 1: My visualisation

I chose to show the trend of increasing temperature using a diverging bar chart with error bars so that I could highlight how abnormal the recent increases in temperature are when we compare to historical averages.

I chose to use a choropleth to show the CO2 emissions of different countries, and overlaid symbols to show the temperature change of specific cities.

Design

Layout

I chose a simple magazine style layout for this visualisation, as there isn't much so it's easy to follow.

Colour

I used a diverging red-blue palette for the temperature change in the diverging bar chart, and reused the continuous positive red section of this in the choropleth / proportional symbol chart for colour consistency.

Figure-ground

I used a basic light background and contrasted this with colour and dark elements.

I used a minimalist approach to highlight the important information without crowding the view.

Typography

I used Arial, a basic sans serif type face for good readability on computer screens.

I used black throughout most of the visualisation for good contrast and readability, while I used a dark blue for the title to suggest the hierarchy.

Bibliography

Sissener, K. (2022). Climate Change: Earth Surface Temperature Data. Retrieved 17 October 2022, from <https://www.kaggle.com/datasets/berkeleyearth/climate-change-earth-surface-temperature-data>

Natural Earth » 1:110m Cultural Vectors - Free vector and raster map data at 1:10m, 1:50m, and 1:110m scales. (2022). Retrieved 17 October 2022, from <https://www.naturalearthdata.com/downloads/110m-cultural-vectors/>

mapshaper. (2022). Retrieved 17 October 2022, from <https://mapshaper.org/>

GitHub - owid/co2-data: Data on CO2 and greenhouse gas emissions by Our World in Data. (2022). Retrieved 17 October 2022, from <https://github.com/owid/co2-data>