VISUALIZING GLOBAL WARMING DATA ACROSS COUNTRIES FROM 1960 TO 2010

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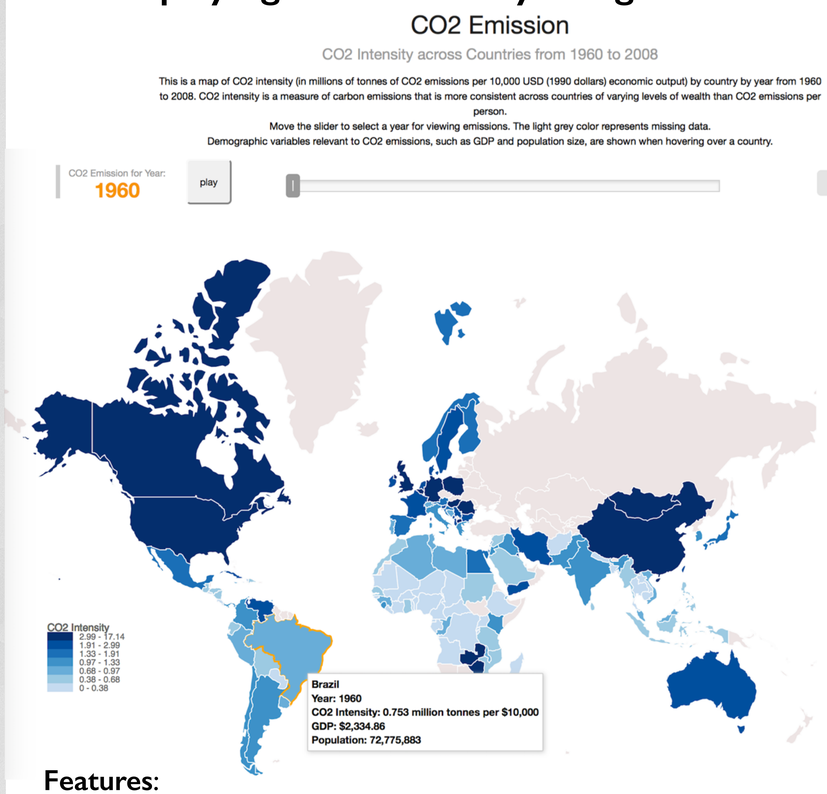
Introduction

We want to display how CO_2 emissions of different countries change over time. Our primary users would be scientists and researchers using the data to quickly gain a sense of overall trends and patterns, and to facilitate more specific analyses or questions a researcher might develop. This is with CO_2 emissions and related variables.

One of us (Alec) is working with this data with Adrian Raftery and Dargan Frierson (UW).

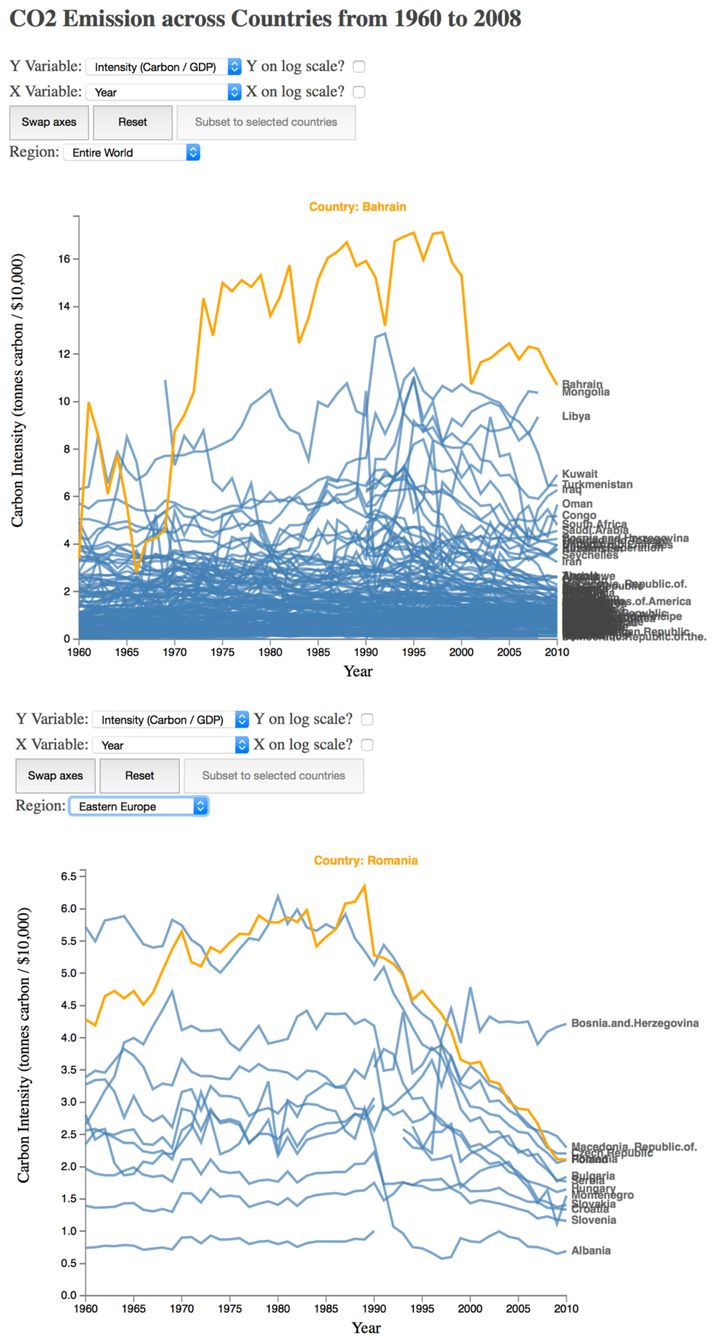
Displaying CO2 Intensity using a World Map



Features:

- A dropdown menu (Select Chart) allowing users to switch amongst visualization for different variables and to switch from a map to a line charts
- Pop-up window displaying different information (i.e., country name, population)
- Animation allowing users to see how CO2 emissions change over time
- Slider allowing users to quickly select which year to display

Line Charts



Line Chart Description

- View different variables over time and against other variables
- Show lines representing trends per country
- Select by region and country (dropdown and brushing)

Data

We have CO_2 emissions, GDP per capita, Population, and compound measures of various countries from 1960 to 2010.

Possible Extensions

Maps:

- Simple line chart displaying CO2 trends in pop-up window
- Maps for different variables

Line Chart:

- Color by region
- Summarize by region
- Multiple linked charts for side-by-side comparison

References

Carbon Data: Boden, TA, Marland, G and Andres, RJ 2013. Global, Regional, and National Fossil-Fuel CO2 Emissions, Carbon Dioxide Information Analysis Center, Oak Ridge.

GDP Data: The Maddison-Project, http://www.ggdc.net/maddison/maddison-project/home.htm, 2013 version.

Population Data: United Nations, Department of Economic and Social Affairs, Population Division (2013). *World Population Prospects: The 2012 Revision, Volume I: Comprehensive Tables*. ST/ESA/SER.A/336.

Maps: http://datamaps.github.io/ http://axismaps.com/project.php#jobs

Code:

https://github.com/CSE512-15S/fp-azimmer8-hoiyi

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