Information Visualization

Investigating Climate Change

Research Questions

- What is the evolution of climate change and effective variables on Earth?

- What pairs of these variables are correlated in this regard over time?

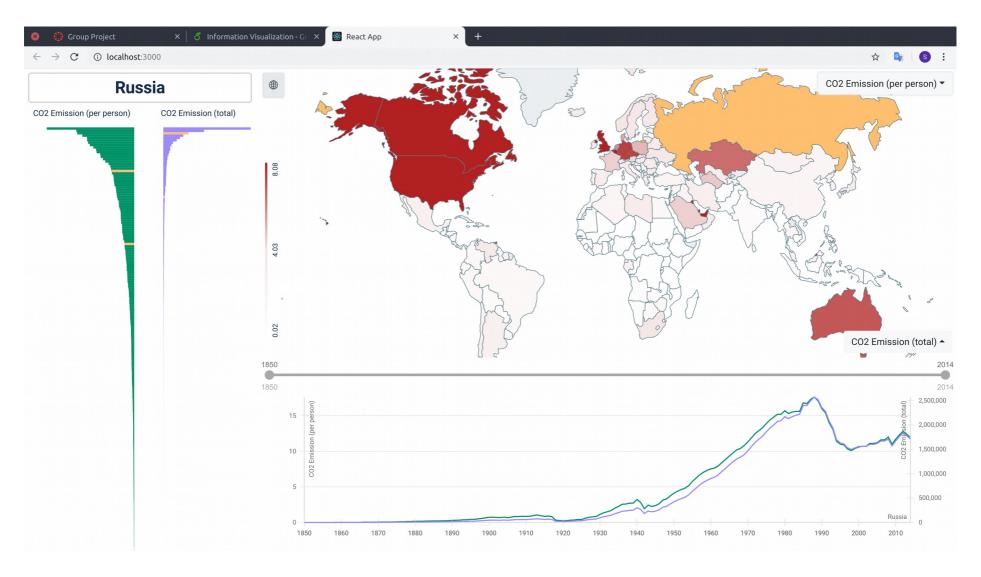- What regions are most affecting and most affected over time?

Goal of the Visualization

- **Visual exploration of historical climate and human-related data variables**
- Pairwise comparison of variables
- High-level and detailed representations
- Dynamic, linked, and integrated
- Bidimensional exploration

Data Dimensions

- Geographical Dimension
  - Region name
- Temporal Dimension
  - Year of given measurement
- Value Dimension
  - Value of measurement for given variable

Application

Motivation of Design

- Chloropleth Map: geographical
- Time-series Plot: temporal
- Parallel Bar Chart: ordinal

- Time Range Slider: temporal selection
- Dataset Selector: variable selection

Visualization Insights

- High-level and detailed view of dataset can be inspected simultaneously

- Distribution of dataset can be seen both geographically and in the bar chart

- Country comparison enabled through brushing and linking

- Time slider scrubbing shows dynamic changes in distribution over time

- Dataset selection allows many different pairs