

DATA VISUALIZATION

GLOBAL WARNING

Consider the data on global warming available at the following address:

<https://climateknowledgeportal.worldbank.org/download-data>

These data provide a very accurate picture of the evolution of temperatures and rainfall between 1901 and 2020 (with 4 measurements each year) in all the countries of the world.

Exercise

Conduct an analysis of existing visualization techniques for this type of dataset. You will have to critically analyze these techniques and explain why you have chosen them, knowing that they should include at least the three following visualizations:

- A temporal visualization (with and without animation).
- Geographic visualization.
- A statistical visualization.

How to manage such a large amount of data? Should it be pre-processed?

Practical Work

Use D3.js to implement 2 visualization methods from the previous data using the latest version of D3.js

Exercise 1

Create a visualization similar to the one shown in the following example:

<http://bl.ocks.org/pstthomas/269d0bd87f41135c95564cc032110c2b>

Exercise 2

Create a geographical representation of these data that will allow to visualize the evolution of the annual averages for all the countries. This visualization will have to allow the selection of a specific year.