EnviroViz

Final Presentation

VICSTHLM
VISUALISATION INTERACTION COLLABORATION

1
Introduction

Team

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Project Goals

- Design and implement an interactive visualisation
- Explore the data not just show it
- Explore relationships:
  - CO2 emissions
  - Indicators of economic and social prosperity
- Visualise complex data in an easy to understand way
- Utilise user feedback and criticism

Target Users

Students with technical background:

- General computer skills
- Able to see
- Generally able to understand and interpret graphs

2
Process

Data Used

- Time series
- 9 Different CSV files (322,566 data points)

Gapminder → Link to Gapminder data

CO2 / capita	GDP / capita
Energy / capita	Life expectancy
Median age	Population density
Urban population	Total population

Our world in Data: → Link to: Our World in Data

Energy / capita

Data Preparation

- Merging different sources
- Checking for units and format
- Using ISO 3166 for country codes
- Calculating weighted averages for groupings
  - Global, EU27, OECD and LDC

Limitations

- Historically changing country borders

  → Data interpolation to current country borders
- Having meaningful data for the large timespan
  - Some sets 1800-2100, some 1960-2015

Tools

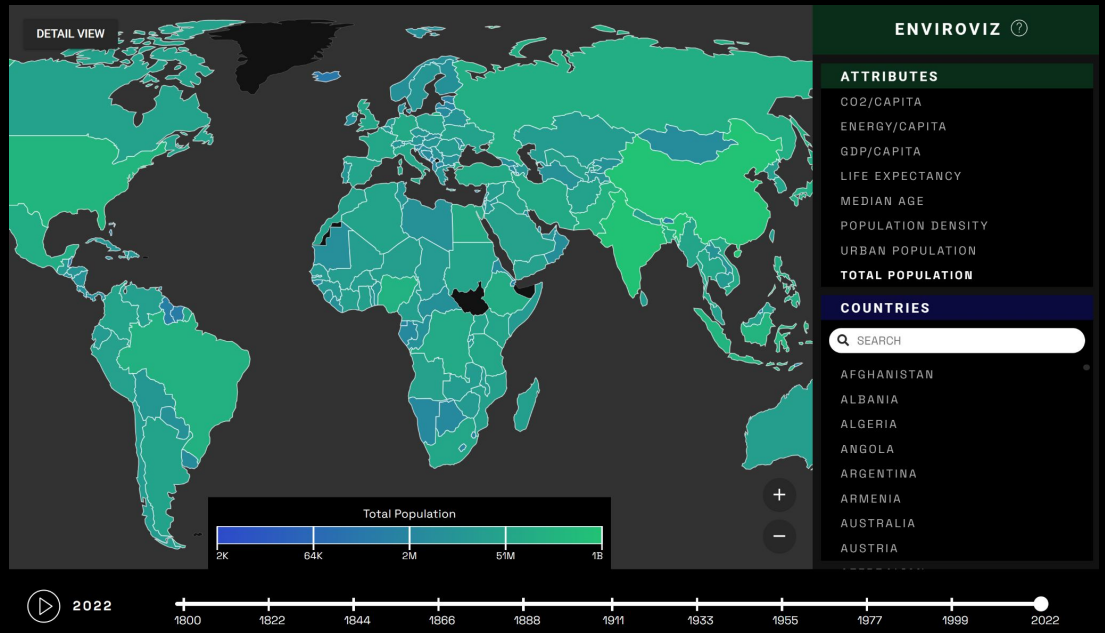
Frontend & Backend

Data handling

Collaboration & Communication

Design

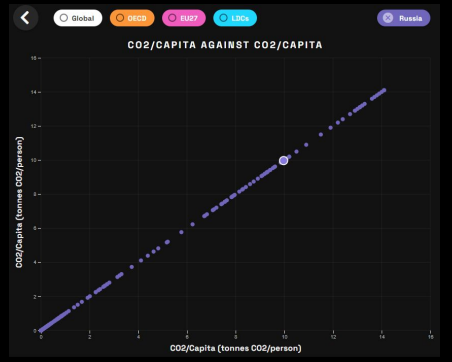
3 Live Demonstration



[Link to the application]

Major Changes from Hello World

- Detail view
- Legend gradation
- Different attribute colours
- Colour scale changes
- Global aggregate attributes
- Bug fixes!
- #no_mercator



4
Reflections

Evaluations and User Studies

- Two rounds of user testing
- Key takeaways:
  - Show data vs. telling a story with data
  - Intuitive switching between views
  - User-friendly & accessible colour schemes

Reflections

- User testing and feedback
- Multiple views are important
- Colour schemes
- Clear goals and project schedule
- Checking in with Angie (Thanks!)

Questions?

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Process

1. Define goal
2. Define topic / find data
3. Data processing (cleaning, preparation)
4. Design user-interface
5. Implementation using CSS, HTML, Javascript…
6. User testing and iterative improvement

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