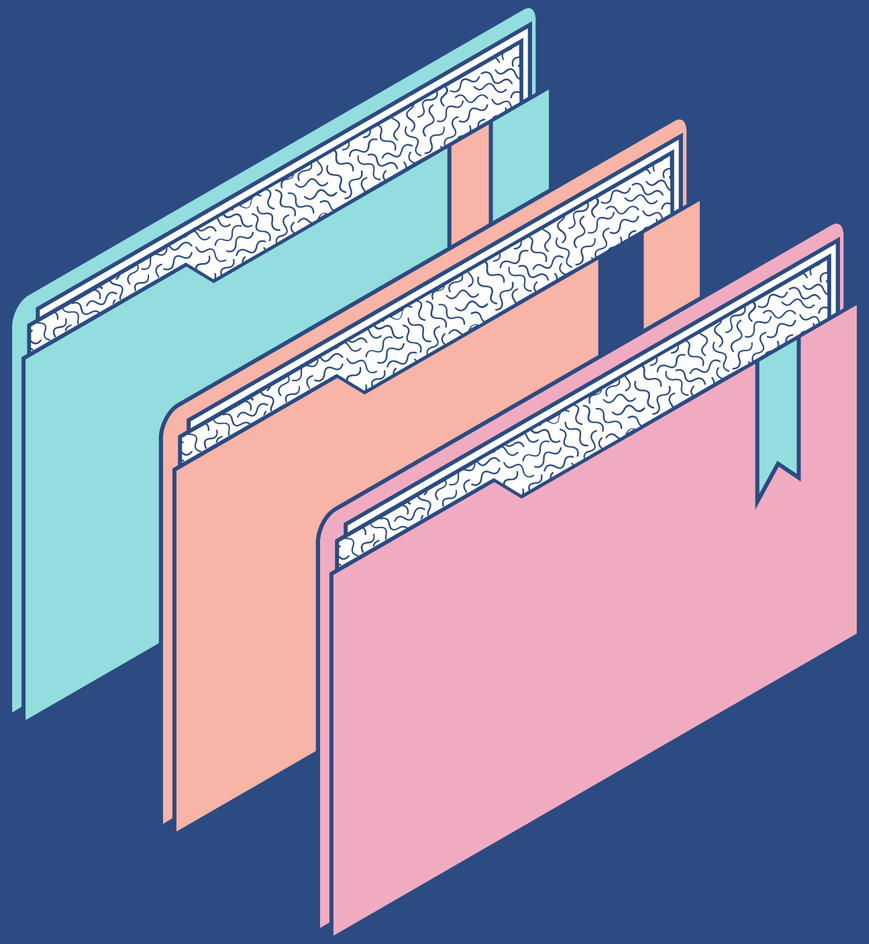
A QUICK INFORMATION GUIDE

Rising Temperatures, Rising Seas: The Urgent Need for Climate Action

A look at the importance of climate change in temperatures and sea levels in the world

By Zhaozhou Dai

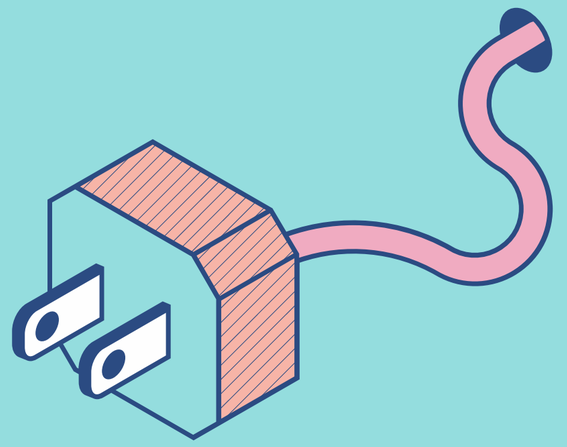


Covering the following content:

KEY TOPICS DISCUSSED IN
THIS PRESENTATION

- Introduction to the dataset and goals of the project.
- A demonstration of an admissible viable prototype.
- A discussion of some of the key design decisions made.
- A description of the next steps for this project.

Introduction to the Dataset and Goals of the Project



The datasets in the temperature and sea level changes domain can be reachable from the followings:

- Food and Agriculture Organization of the United Nations
- Climate Change Dashboard
- National Centers for Environmental Information

The goals of the project are to produce a data-driven and scrolly-telling news story about the temperature and sea level changes of climate in the past years in the world by combining them with visual charts and writings.

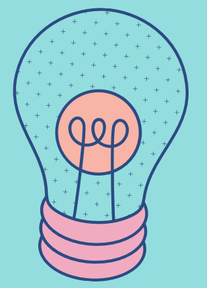
Through the visualizations I created, my aim is to provide readers with a detailed understanding of specific aspects of climate change, such as annual temperature and sea level changes.

The importance of this effort is to equip the audience with comprehensive investigative information and encourage them to take action towards addressing climate change. By presenting these visualizations and accompanying narratives, I hope to inspire greater public engagement and awareness of the pressing issue of climate change.

Demonstration of an Admissible Viable Prototype

The link to the demonstration of my final project implementation:
https://jovidai.github.io/climate-change-worldwide/

Discussion of the Key Design Decisions Made



- Interviewed many professional U.S. climate journalists from **ProPublica**, **Grist** and **The Boston Globe** about issues of climate change for their investigation.

- Used R to explore these datasets first and then used R and Adobe Illustrator to analyze and visualize data. Also, used some JavaScripts libraries, such as "**D3.js,**" "**scrollama.js**" and "**flickity.js.**"

- In order to present my data more visually and clearly to the audience, I adapted the method of scrollytelling format to combine writing and visuals to increase interactions.

- The data covers monthly, seasonal and yearly temperature changes as Celsius degrees °C between 1961 and 2019. The frequency of dissemination and Release calendar of the data is yearly.

- **Interesting findings:** The annual temperature and sea level have changed significantly in a decade and are still increasing yearly—for example, the Baltic Sea, Indonesian, Persian Gulf and Gulf Mexico.

- Moreover, global land and ocean temperature anomalies have been increasing over the past 100 years, which means global temperatures are increasing yearly as the climate globalizes.

Description of the Next Steps for this Project

- I tried to include an image gallery about climate change, especially the situation of the environment, like temperatures and sea leal rise, but I realized it would be similar to the scrollytelling part I did. So I did not include it in the final version.

- I would like to add an interactive D3.js map in the future to show the temperature changes in different countries.

- Reach out to some climate change experts to do the interviews to gain some different perspectives from professionals.

- Make more in-depth D3.js visualizations.

- Improve the CSS styles of the project to enhance its visual appeal and overall presentation.