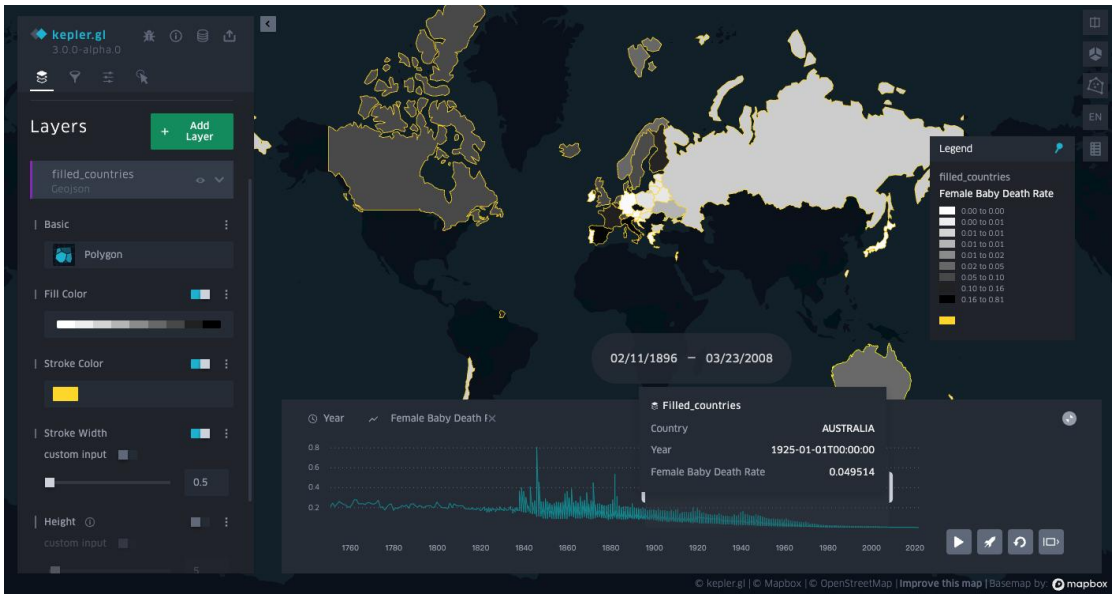
Visualizations: The Decline of Female Infant Mortality Rate Worldwide



- **Visual Design Type:** Interactive Digital Map
- **Name of Tool:** Kepler.gl: *https://kepler.gl/*
- **Country:** all countries in this dataset
  - expect some's name not correspond to the shape file, like 'United States of America' != 'The United States of Amera'
- **Years:** 1751 - 2022
  - 1922 - 2020 is the best since num of countries involved > 20
- **Visual Mappings:**
  - **color:** the darker the colour, the higher the death rate of 0-year-old female in this year in this country
  - **mouse position show:** the detailed information, such as country name, year and death rate for 0-year-old female
  - **shape:** the shape of country, data from https://www.naturalearthdata.com/
  - **Timeline Animation:** Displays the infant mortality rate by country over the years and the number of countries contributing data.
- **Unique Observation:** From the changes in the timeline, it can be observed that the infant mortality rate for female babies is declining year by year in various countries. Additionally, the number of countries contributing data to the analysis is increasing over time. At the same time, the infant mortality rate in Asia appears to be relatively lower in recent years.
- **Data Preparation:**
  - Convert a mortality rate TXT folder categorized by country into a CSV folder categorized by year, with the filtering condition being the mortality rate of female infants at age 0. Additionally, add latitude and longitude information for each country.
  - Merge all the CSV files together.

- Download the country border coordinate database from the naturalearthdata official website and analyze the column corresponding to the country names.
- Use country names as keys to merge the "ne_110m_admin_0_countries.shp" and CSV files, and convert them into a GeoJSON file format required by Kepler. Also, convert the time data type to create a time-lapse animation.

- **- URL of Map/ Kepler:**

https://kepler.gl/demo/map?mapUrl=https://dl.dropboxusercontent.com/s/afn1z5uvi0sp6gg/keplergl_4d08px.json

- URL of Presentation/ Youtube:

https://youtu.be/GEKLQFRLPnU

- URL of Code & Dataset/ Github:

https://github.com/WenliFei2023/Kepler-Interactive-Digital-Map.git