



USING APPLIED DATA ANALYSIS TO STUDY THE LGBT+ COMMUNITY RIGHTS ALL OVER THE WORLD.

This project aims to observe the condition of LGBT+ rights from three different perspectives:

- The evolution of some rights through time
- The current state of some rights
- The correlation between LGBT+ rights and Political regime





QUEER DATASET SOURCES

Our sources of data are:

- Kristopher Velasco (2020) processed by Our World in Data
- Bastian Herre, Esteban Ortiz-Ospina and Max Roser (2013) "Democracy" Published online at OurWorldInData.org.
 Retrieved from: 'https://ourworldindata.org/democracy'

THE DIACHRONIC DA A.

The first data uses **Velasco index**, a value between 0 and 1

The **Lgbt rights index** is calcuclated between .5 and 13.

The first group of data stores data from 1991 to 2019. They concern:

- civil unions
- constitutional protection
- hate crime protection
- marriage for same sex parters and its ban
- Igbt rights index



THE DIACHRONIC DA A.

Analysis performed

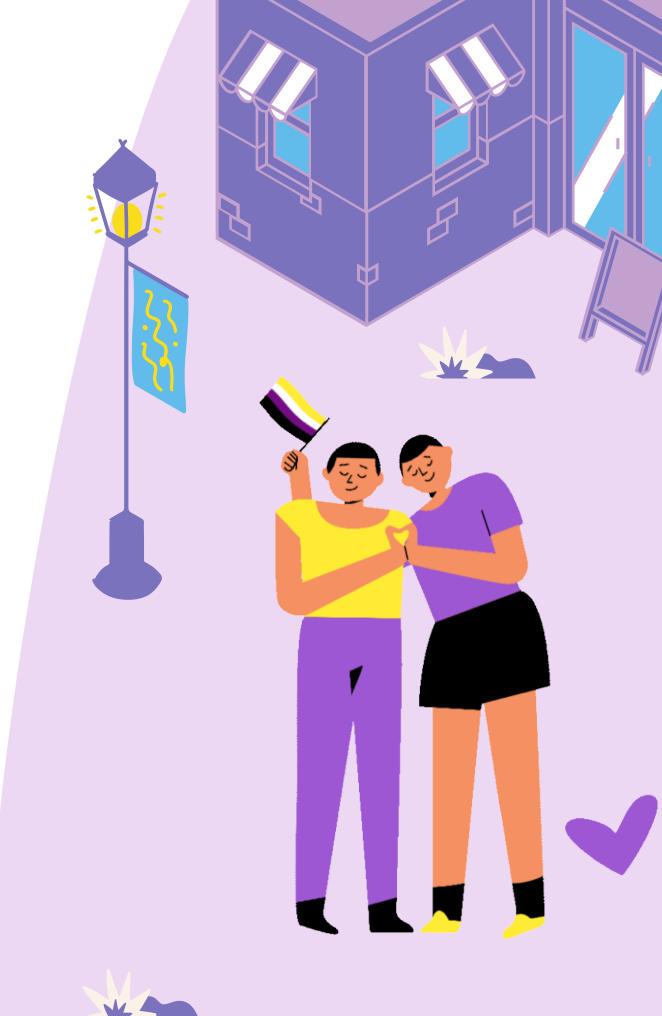
- 1. Mean of Indicators Worldwide by Year
- 2. Mean of Indicators Per Country by Year
- 3. Fulfillment Occurrence
- 4. Frequency of one Range of values.



SYNCRONIC DATA (EQUALDEX)

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- LGBT discrimination: 4 variables (Illegal, Illegal in some contexts, Varies by region, No protections)
- Same-sex adoption: 6 variables (Legal, Married couples only, Step-child adoption only, Single only, Ambiguous, Illegal)
- Same-sex marriage: 9 variables (Legal, Civil union or other partnership, Foreign same-sex marriages recognized only, Unregistered cohabitation, Varies by region, Unrecognized, Unrecognized, same-sex marriage and civil unions banned, Not legal)

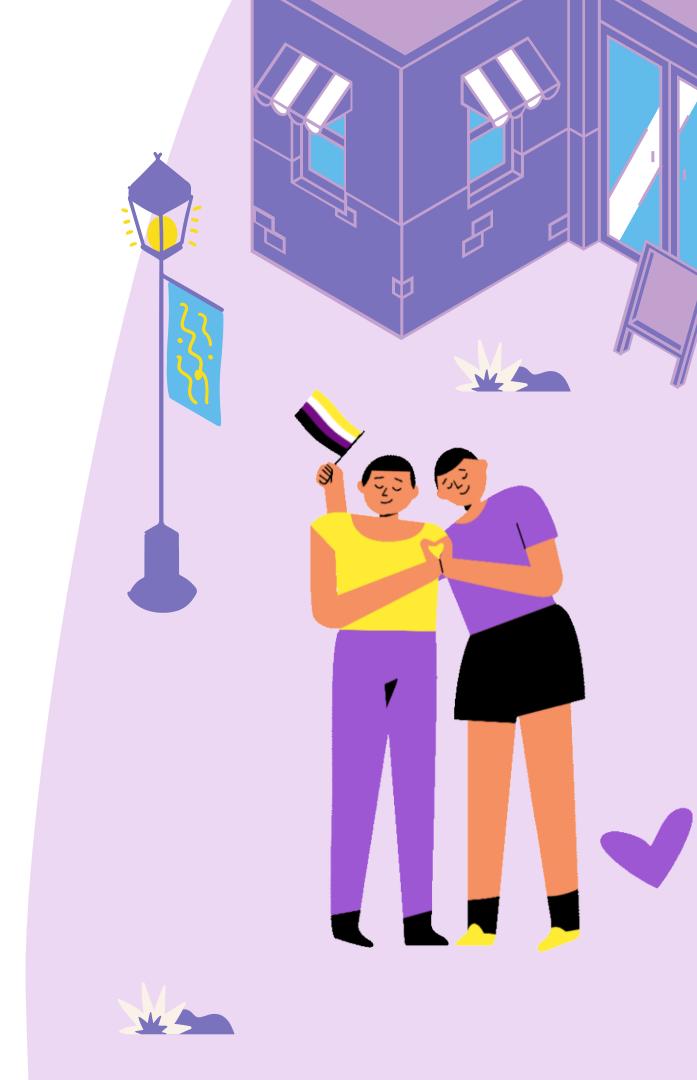




SYNCRONIC DATA (EQUALDEX)

Analysis performed

- Categorical Distribution:
 - Explore the number of country adopting a specific behaviour.
 - o Percentual representation of these data





WORLD POLITICAL REGIME

Data from 1789 to 2022. 4 variables:

- Closed autocracy
- electoral autocracy
- electoral democracy
- liberal democracy

COMBINED DATA.

We combined different datasets to observe correlations between phenomena:

- The position towards **same-sex unions** and the *political regime* of a country
- The correlation between the *political regime* and the **LGBTright index**



VISUALIZATION WITH DASH

Dash is a Python framework for building analytical web applications.

- **Interactivity:** interact with graphs dynamically
- **Ease of Use:** interactive visualizations using familiar Python libraries like Plotly and Plotly Express; wide range of chart types

For our project:

visualization of the Mean of Indicators
 Worldwide by Year (diachronic data)
 using a histogram chart with radio
 buttons





VISUALIZATION WITH FOLIUM

Folium is a Python library that enables the creation of interactive maps directly from Python code.

- **Interactive Maps:** features such as zooming, panning, and hovering
- **Customization:** extensive customization options for maps, markers, popups, and overlays
- **Geospatial Data Integration:** integration with geospatial data formats such as GeoJSON
- Integration with Pandas: integration with Pandas DataFrames, allowing direct visualization of data stored in DataFrame objects on interactive maps

For our project:

• **Choropleth Maps**: visualization of statistical data aggregated by regions using color scales; in our case, we represented the *Mean of Indicators Per Country by Year* (diachronic data)





RESULTS



- there are some countries where conditions are getting worse
- There is a correlation beween the democracy level and openness towards LGBT rights.







Continue to create safe spaces for the LGBT+ community.

