Information Visualization

Suicide Rates Overview 1985 to 2016
https://www.kaggle.com/russellyates88/suicide-rates-overview-1985-to-2016

1st Iteration

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The Dataset

Suicide cases of various countries throught the years

Country	year	sex	age	suicides	population	suicides per 100k pop	GDP	GDP per cap	HDI
Albania	1987	Male	15-24	21	312900	6.71	2,156 M	796	-
Albania	1987	Male	35 -54	16	308000	5.19	2,156 M	796	-
Albania	1987	Female	15-24	14	289700	4.83	2,156 M	796	-
Albania	1987	Male	75 +	1	21800	4.59	2,156 M	796	-
...	...	...	...	...	...	...	...	...	...

Users

Users:

1. Historians
2. Analysts of a given country or international organizations
3. Students or anyone trying to retrieve information about the topic

Use cases

What is provided:

- See the evolution of suicides cases over the years and discover if a given country is doing a good job diminishing suicide rates.
- Learn if important events/dates have an effect on the number of cases.
- Have a general idea on the worst/best countries regarding this issue.
- Discover if people of a certain age and/or sex have a higher chance to commit suicide.
- See if a correlation exists in GDP/HDI of a country and the number of cases.

Representation techniques

We want our users to see the suicide cases by country so we dedided that the best way to represent our data would be by creating a **Choropleth world Map**, which users would be able to filter according to several parameters.

Then users would be able to obtain more detailed statistics about the selected countries using other visualizations such as **Pie charts** of cases by gender and age, and **Line graphs** of the cases and gdp per cap.
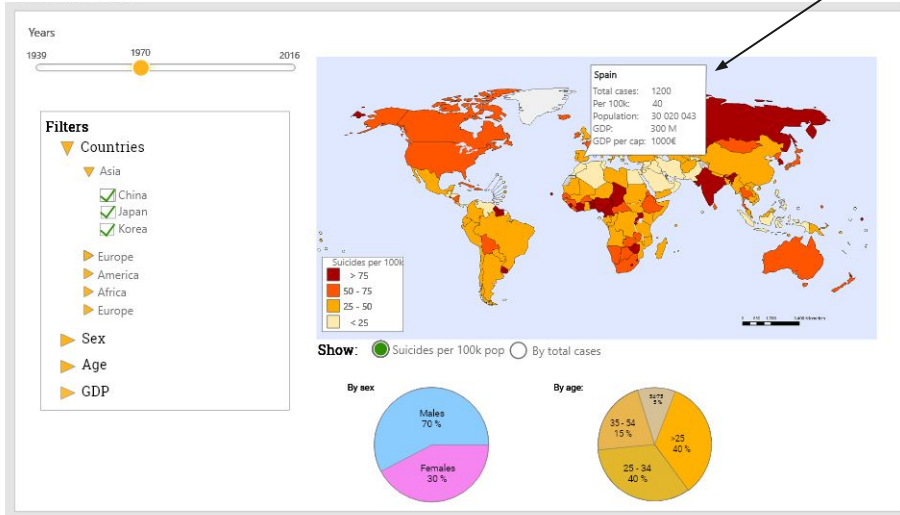
First Prototype

We used prototyping software (Adobe XD) to create our first prototype

Choropleth World Map

Filters

Prototype - Main page
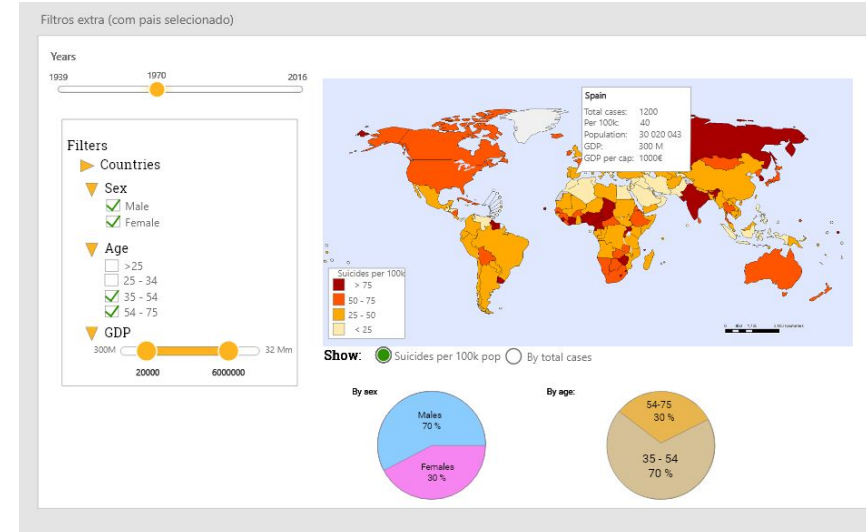
Pie charts for age and gender
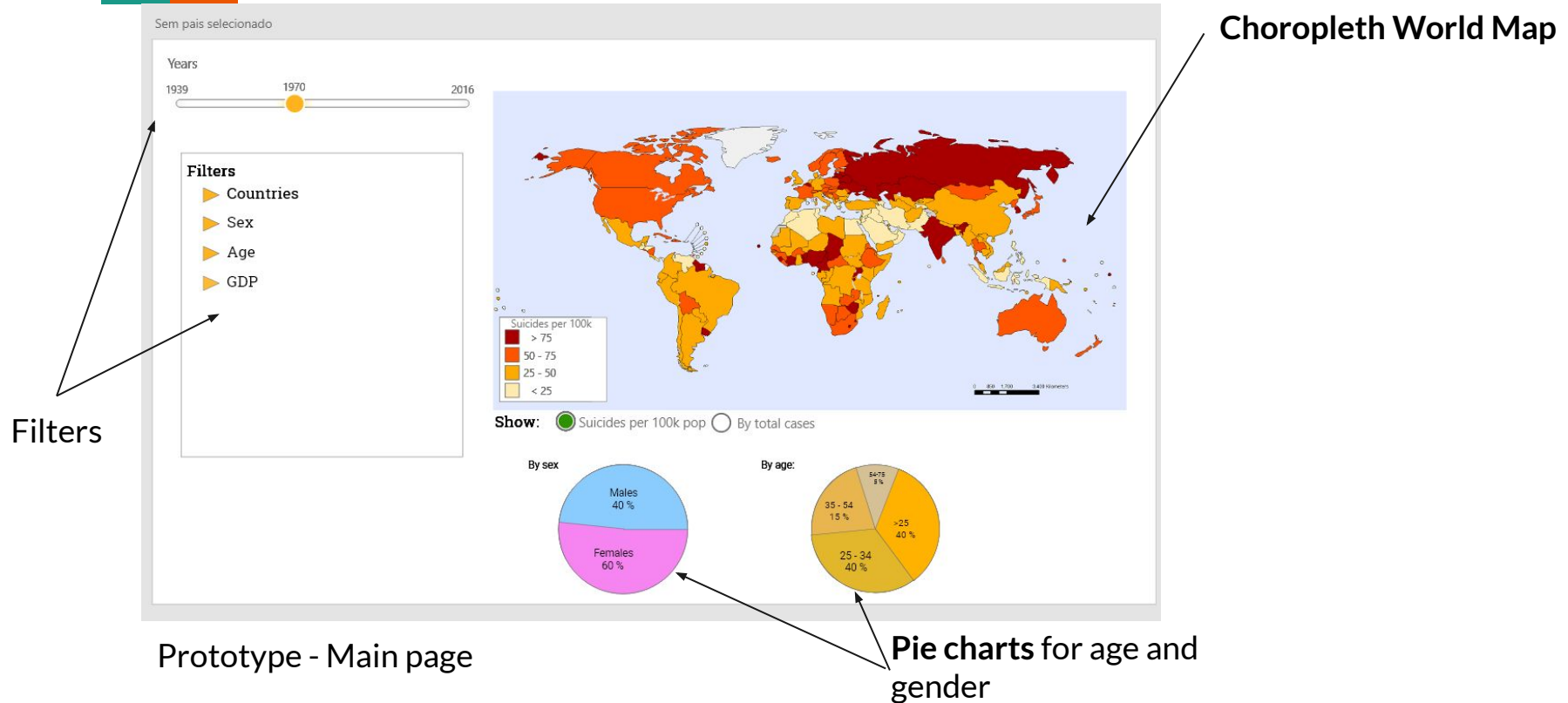
First Prototype (continuation)

Information about selected country

Prototype - Country Selected

Prototype - Filters expanded

First Prototype (continuation)

Prototype - Additional graphs
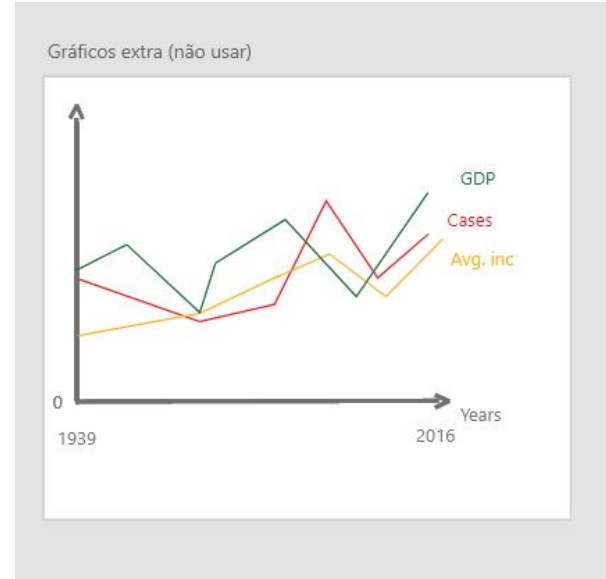
Prototype - Line Graphs jointed

Line Graphs

Heuristic / Usability Tests

Overall the results for the prototype were very positive users were able to understand the prototype and no major flaws were detected, however there were a few tweaks to be made and some helpful tips to improve the design like:

- A way to find smaller countries (that may be hard to click on the map) like a text box were we could input the country
- Some users didn't immediately noticed that the map was interactive and suggested that if it was bigger it would be easier to notice
- Easier way to filter the maps like a checkbox to select/ deselect all, along with checkbox to select/deselect all from a specific region
- Some users liked the jointed line graph but once explained that the values would be very different from one another (like GDP on the millions while cases on the tens) they became a little confused.

Main Changes

Use two y-axis graph.
Remove GDP line for simplicity.

example graph
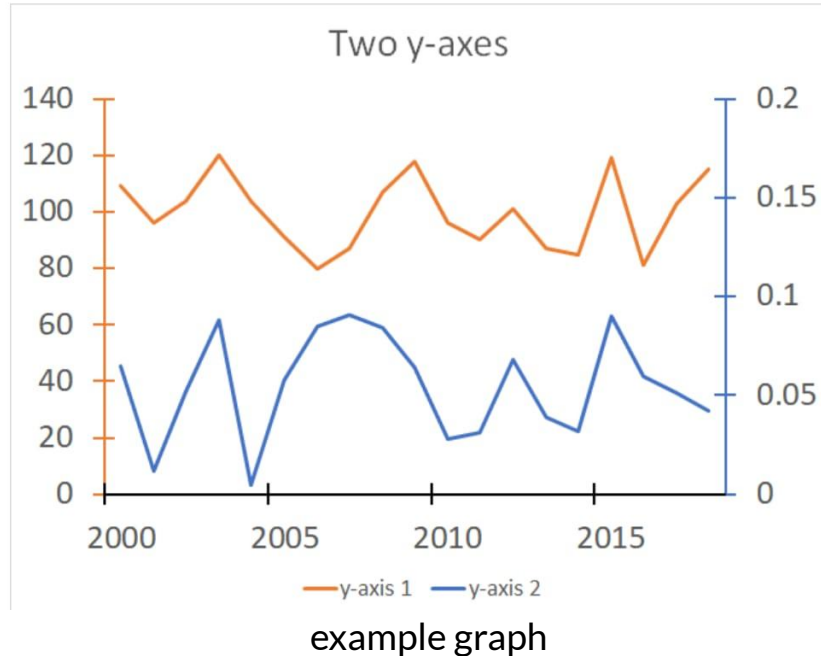
Update on the countries filter.
Show only continents for better user usability.

Updated filters