

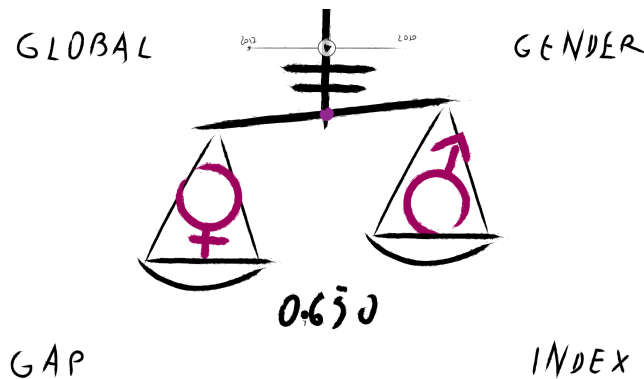
## Milestone 2: Project Goal

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Data Visualization (COM-408)

The aim of our visualization is to show in an intuitive way how the gender gap is changing over time and across different countries.

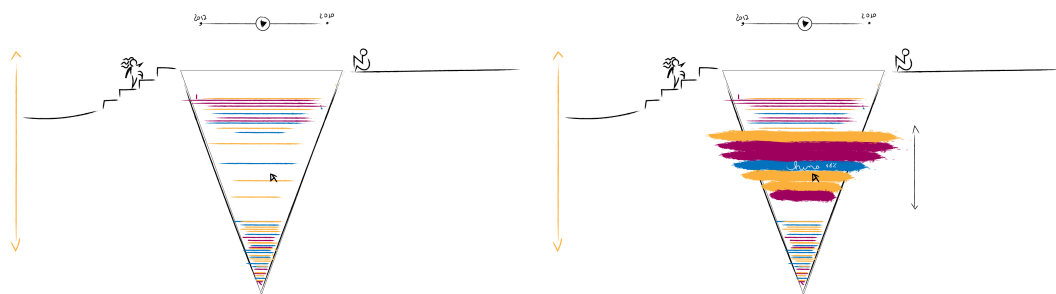
Our **minimal viable product** will consist of three main parts:

- **Homepage**



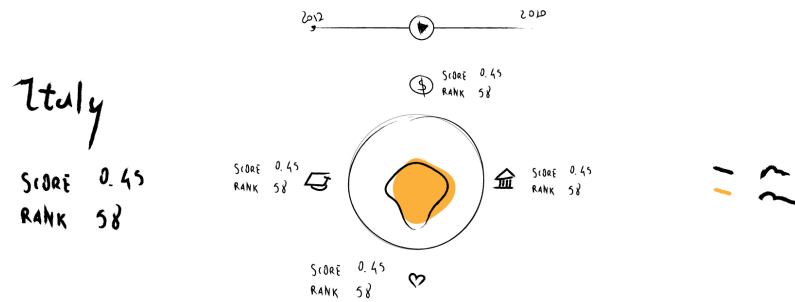
In order to quickly engage the user, we decided to keep the introductory page quite simple. This page will show only the evolution of the global index over time, averaged across countries. A play/pause button will animate a timeline slider and show the gender gap score of the corresponding year. Furthermore, the balance with the gender symbols will animate accordingly. A small text on the lines in the upper part (i.e. 'explore countries') will invite the user to reach the next section by clicking on the line/dragging the lines down.

- **World gap ranking**



This section will visualize a comparison of the gender gap between countries. The countries will be represented with colored lines, with length inversely proportional to their score. The countries with a low score (higher gap) will be positioned in the upper part, while the ones with a lower gap will be in the bottom part. Countries are grouped according to their geographical region, which is represented by their color. Clicking (we have to test the interaction in order to choose between clicking and hovering) on a one line will create a "lens effect" that will show bigger bars corresponding to the 7 countries nearest to the selected area. These bars will contain text showing : country name, score and rank (with arrows indicating if the country has shifted down/up with respect to the previous year). The play button will animate the visualization to show progress over time. Moreover, on the sides of the main visualization there will be buttons enabling the user to filter the data (examples of filters: world regions , subindexes)

- **Country details**



Clicking on one country from the zoomed section will open a section containing a radar plot with the details of that country.

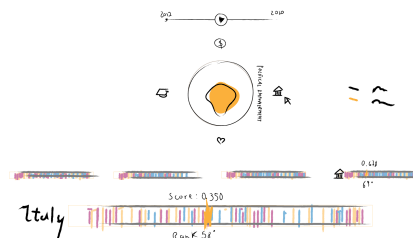
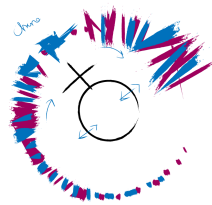
The radar plot is made of one line representing the average between all countries and the colored filled plot showing the data of the selected country.

The play button will animate the plot over time.

Selecting one icon of the subindexes will show some details about the rank and score of that subindex.

**Additional ideas:**

To further involve the user, we thought that after the Homepage it could be useful to add a **'select your country'** section, to enable the user to firstly receive a personalized perspective of the gap.



We designed the page in this way:

The spiral collects all countries in colored dashes (colored in the same way as in the Ranking page), each with width proportional to the ranking. The gender symbol would act as a wheel that follows the cursor position rotating and resizing accordingly, while pointing at the desired country. There would also be the function for searching for a country. In case we will add this page, the 'order of appearance' of the pages would be: Homepage->Select your Country->Country Details-> World gap Ranking. Moreover, in the Country Details part we could add a viz showing and comparing the rankings among subindexes, like the sketch above. All these sections can be considered optional, as the main information is covered in the three parts described above.

**Tools:**

We will need the lectures about Javascript, D3.js, Interactions, Marks/Channels. Also the lectures about text viz and Tabular data may be helpful for us. To implement the balance, we also need matter.js.