# History of cinema : Milestone-2

Production Countries of Films:

The goal of this visualization is to show where most of the films are produced. Since the dataset is skewed by American films, it will probably be better to remove them from the calculations for the colors and simply assign a specific color. Users will be able to select countries in order to filter what the other visualizations show (if you select France and Italy, other visualizations will only show results related to film shot in France or Italy).
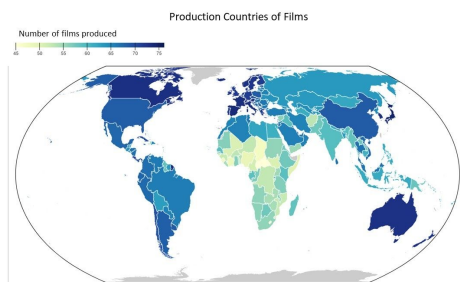

Most Successful People in the History of Cinema:

The goal of this visualization is to show the most successful actors and film directors in the history of cinema. They are placed on a time vs number of films plot and the size of each circle is proportional to how much successful the person is (or has been). Success will be measured through the success of the films the people have worked on (where the success of a movie is measured as a ratio between its revenue and its budget). Users will be able to select which category to show (actors, film directors or both) and an input field will let them place any other actor or film director on the plot (of course this only works for people that are in the dataset).
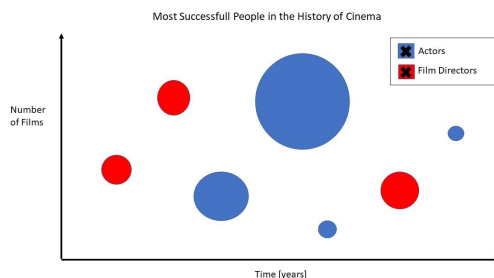

Success of genres over time:

This visualization is about the evolution of the success of each genre over time. The success is measured through the success of the concerned movies (where the success of a movie is measured as a ratio between its revenue and its budget). Users will be able to select a specific period of time and zoom on it, also altering the results of the other visualizations (where results will only take into account the selected period of time). In the same way, users can select a specific genre (or multiple genres) and filter the results of the other visualizations.
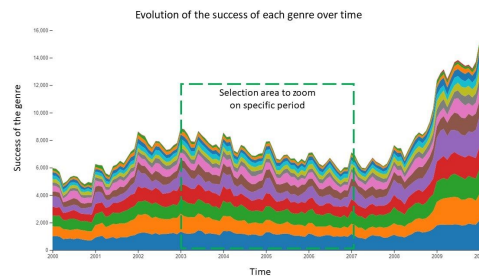
Bar races for film genre and most prolific/grossing actors:

This bar race will be representing the repartition of film genres through a gliding window to depict which were popular in each epoch of cinema history. Same could be done with the number of movies or grossing per actor.
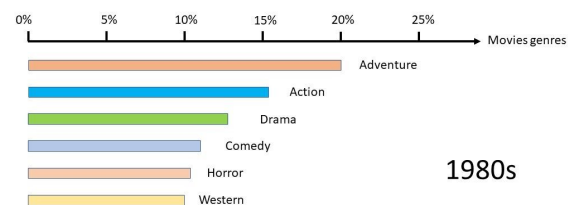

Bar race of genre across time by Count/Grossing

Who has worked with who?

This visualization shows who has worked with who, considering actors and film directors. A connection is made if two people have worked on the same film. Users are able to check whether to only show actors, only film directors, or both. They will also be able to search for a specific name through an input field.
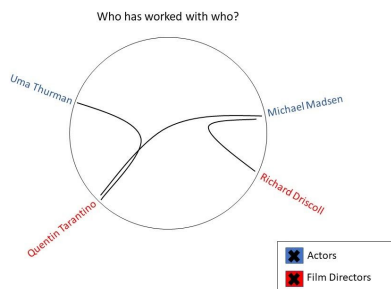
## Connections between prolific actors and directors (Sankey Diagram):

This visualization goal is to witness how iconic actors and directors worked together and maybe also on which genre. This visualisation can be done for each decade and the user can choose to toggle the visibility of each of the 3 categories (actors, directors, genre).
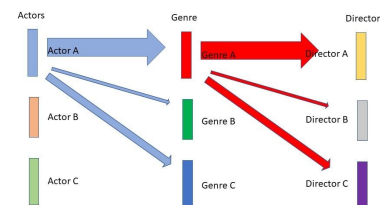
Sankey Diagram of Main Actors (option for to Genre) to Directors for most prolific ones.

Span of the careers of top actors:

With this visualization we aim at showing the gliding superposition of the top actors and actresses dominating american cinema through time. The bars can be displayed sorted by start date or by gender, eventually by the main film genre of the actors.
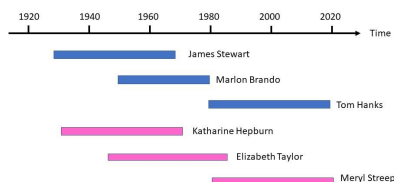
Career Span of top actors and actress (activity/grossing), sorted by genre or date of rise to fame.

Needed lectures:

- Lectures on Interactions (both to handle users' input and for the transitions)
  - Linked views
  - Crossfilter could be used to link together different visualizations, taking users' actions on one to also update all the others
- Lectures on Perception colors & Mark, channels: understand human perception to better guide the user (for instance, categorical data for movies genres or ordered data for number of films produced in the various countries)
- Lectures on map for the Production countries of movies visualization (choropleth maps in particular)
- Lectures on graphs for the corresponding visualizations (Who has Worked with Who, Who has Worked in Which Genre), Sankey diagram and hierarchical edge bundling

Js Libraries needed :

- https://observablehq.com/@d3/hierarchical-edge-bundling
- https://observablehq.com/@tezzutezzu/world-history-timeline
- https://observablehq.com/@d3/sankey-diagram
- https://observablehq.com/@d3/stacked-area-chart
- https://observablehq.com/@mbostock/revenue-by-music-format-1973-2018
- https://observablehq.com/@d3/world-choropleth
- https://observablehq.com/@mbostock/the-wealth-health-of-nations
- https://observablehq.com/@d3/bar-chart-race
- Leaflet.js
- Sigmajs or Cytoscape.js
- Chroma.js