

Milestone 2

Project goal:

The goals we have for this project are:

- *Determine patterns of what makes a great movie*: As we know that this is a complex question, we are not trying to give explicit and straightforward answer. We do not intend to build mathematical models or use machine learning to give predictions. Instead, we want to enable the users to make their own conclusions and discover patterns among movies. By visualizing the data we have for each movie, we give the user the opportunity to interactively explore and make connections, using their own logic and creativity inspired by our representation of the data.
- *Visualize connections that exist among the movies*: The key factor for success of the movies are the actors playing in them. We would like to visualise how the actors are connected and which group of actors tend to work together more often.
- *Create an entertaining experience on the website*: Make the whole experience of reading and consuming our data story engaging, interactive and visually appealing.

Visualizations:

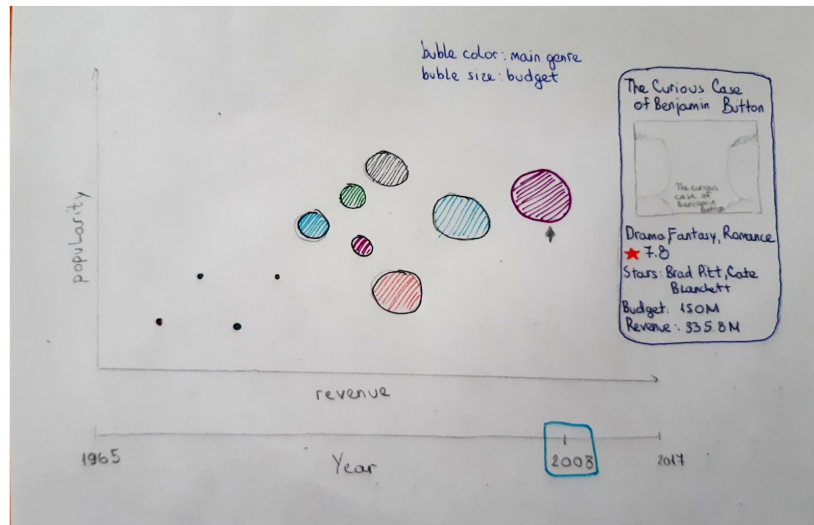
Apart from having a website, in order to fulfill the goals we have set, we have to make 3 visualizations:

- **Bubble chart** which shows how the movie industry evolved during the previous half of the century. We want to enable the user to see which movies were most popular for each year, which movies earned the most and does high budget imply high revenue, which genres were most popular and which production houses make the most successful movies.

Main functionalities of the plot:

- Visualising all the movies (from the dataset) in the past 50 years with their metadata
- Implement year timeline and several selection criteria (eg. genre)

Technologies used: D3.js, Bootstrap, jQuery

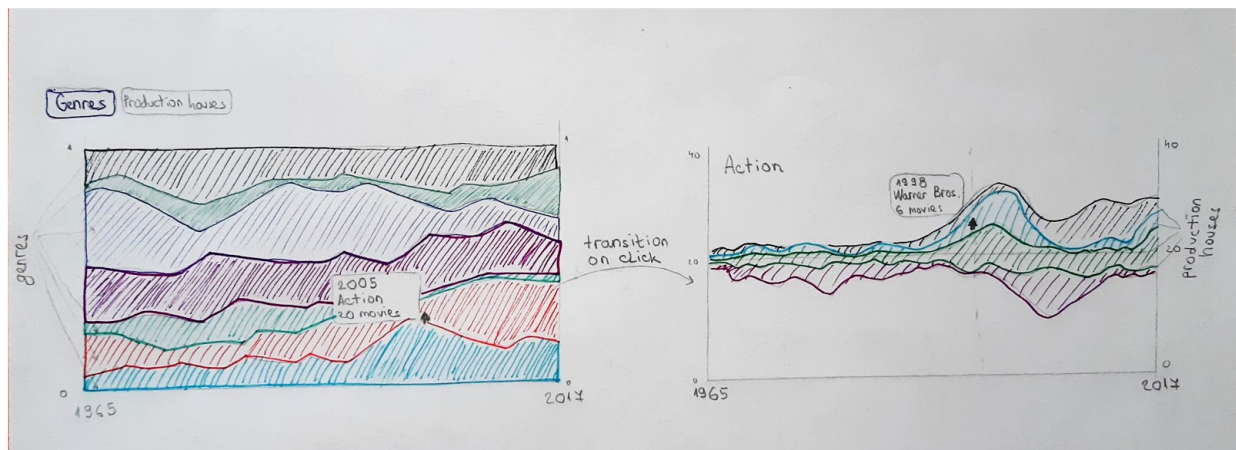


- **Movie timeline:** We want to explore deeper how the popularity of different genres changed over years and which productions houses focus on each genre.

Main functionalities of the plot:

- Visualising the number of movies for each genre and each production house in the previous 50 years
- Two selection options: genre and production house. First level selection on one criteria, with transitions in detailed view on the second criteria

Technologies used: D3.js, Bootstrap, jQuery



- **Network of actors** which shows common cast choices for popular movies. We decided to use 3D undirected weighted graph to show interconnections between actors. Each actor is represented by a node, while movies in which the two actors played together are contained in the edges, which weight depends on the number of common movies.

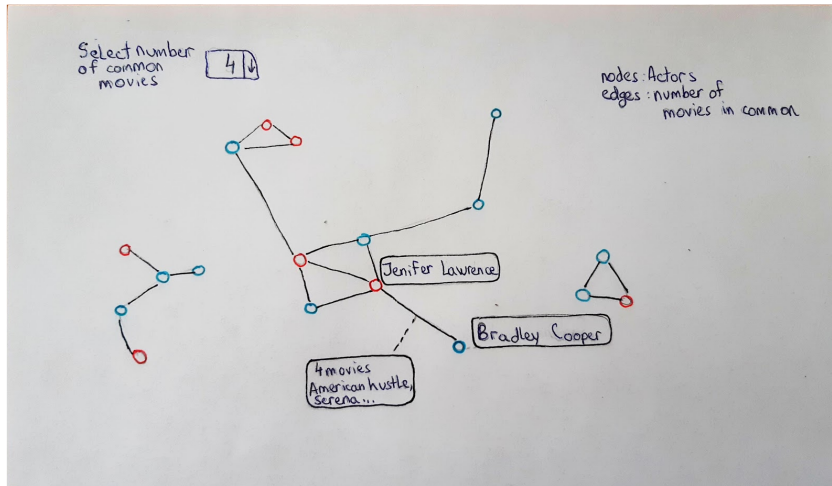
Main functionalities of the plot:

- For each edge, display the movies that two actors share in common
- For each actor user can see additional information about the actor itself

- Option to choose the level of similarity between actors in terms of selecting how many common appearances does it take to create a connection between actors

Technologies used: D3.js, canvas (svg is too slow for big networks)

Lecture references: *Graphs, More Interactive d3.js*



The minimal viable product that we want to deliver consists in the website with three above mentioned visualizations with all of the listed main functionalities. We want to focus on making these three visualisations as interactive and informative as possible. The extra challenge we set to ourselves is trying to do one more chart to implement one of the many more ideas we have (eg dependency between genres). However, coherent website and three key visualizations are our priority.