

Milestone 2

1. Project Goals

1.1 Determine patterns of what kind of movie is more profitable

Instead of visualization focused on the connections that exist between the votes and the movies, our primary concern is whether or not the movie will make money. We are attempting to create a website where our users, most of whom are investors, are able to select actors, directors, and so on for their own movies, according to the profitability of movies over the past two decades.

1.2 Provide an interesting experience to our users

The users may consider our website as online shopping for a movie. The users can choose their movie's Genre, Actor, Country, Keywords in the description, Director, and Published season, as if they are putting items into their shopping carts.

Extra ideas: If time permits, after the users choose all they want, we want to give an estimated profit for the new movie they have decided on our website.

2. Visualizations

2.0 Home page & Entrance page

The home page (Figure 2.0.1) is shown as a direct road to Hollywood. The user is sitting in the car, heading towards Hollywood. There are six signs along the road, equivalent to six aspects of a movie. With each option completed, investors are one step closer to Hollywood and their own profitable film.

When the users click on each sign on the road, they can see the entrance page (Figure 2.0.2) of each choice on the windshield. Here is the Actor page as an example. The users can view more detailed information by clicking the "info" button.

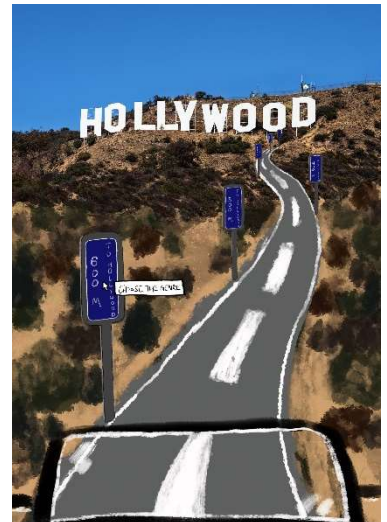


Figure 2.0.1 Home page

2.1 Genre & Money

Figure 2.1 depicts the relationship between the movie genre and the budget, American income, and international income. This plot enables the user to see which genre is the most profitable and choose the genre for their own movies.

Tools: Parallel coordinates

Lecture: 11_1_Tabular_data

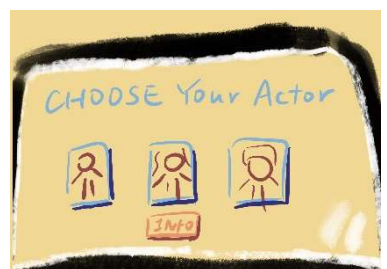


Figure 2.0.2 Entrance page
(actor as an example)

2.2 Actor & Money

We sort the actors by their average profit from largest to smallest. In Figure 2.2, each bar represents an actor, and the actor's photo is placed at the top. The whole chart looks like a podium for the actors. Higher

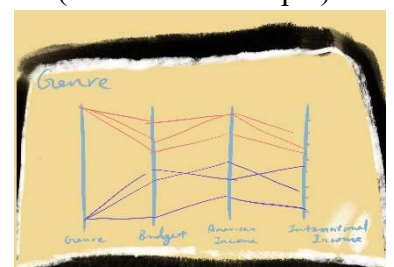


Figure 2.1 Genre info page

profits they made, higher positions they are. There will also be a hover effect when the user puts the mouse on one bar: a tiny stickman will hold the photo of the actor above his head to highlight it.

Extra idea: We want to use 3D-stacked bar chart to shows the profits difference between different years of each actor.

Tools: stacked bar chart

Lecture: 5_interactive, 11_1_Tabular_data

2.3 Country & Money

In this visualization, the map with different colors for each Country represents the average of all movie profits in the Country. The user could have detailed numbers by putting the mouse over a country on the map.

Extra idea: There will be a timeline with a slider for the users to select a year.

Tools: Maps

Lecture: 8_Maps

2.4 Keywords in description & money

Using the keywords extracted from the description, we want to build a word cloud to identify the most common ones in the most profitable movies. The more money the movie with the keywords makes, the bigger the keywords shown in the word cloud.

Extra idea: The user can interact with the word cloud for detailed information by clicking on some words to see all the movies related to the selected keyword.

Tools: Word cloud

Lecture: 9_Text

2.5 Director & Published date & money

We will create a scatter points plot where the user will be able to find the director they are interested in, as well as his works from various periods. The x-axis is the time axis, while the y-axis represents the movie's income. The user would be able to interact with the plot by putting the mouse over some points to see more information. The selected director and his films will be highlighted.

Tools: Scatter points

Lecture: 5_interactive, 11_1_Tabular_data

2.6 Published quarter & money

We divide the published time of the movie into four parts according to the season and calculate the average profit of each quarter each year separately. The x-axis represents the average profits, while the y-axis is the time axis. The users could see not only the difference between quarters of the same year but also the difference between years.

Tools: Stacked bar chart

Lecture: 11_1_Tabular_data

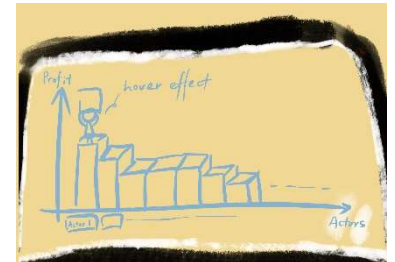


Figure 2.2 Actor info page

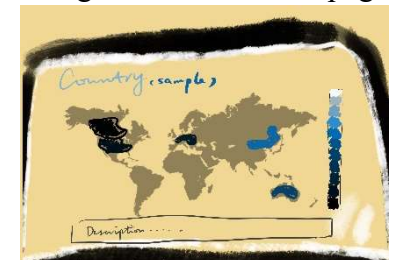


Figure 2.3 Country info page

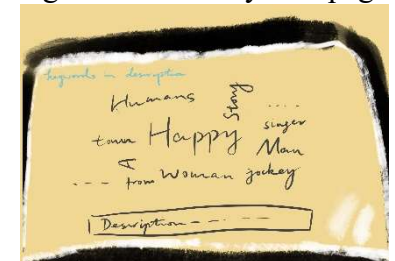


Figure 2.4 Keywords in description info page

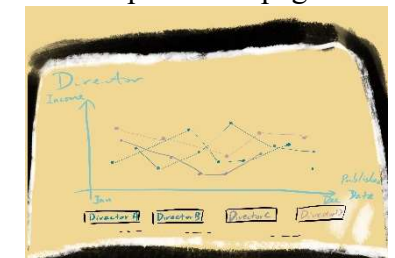


Figure 2.5 Director info page

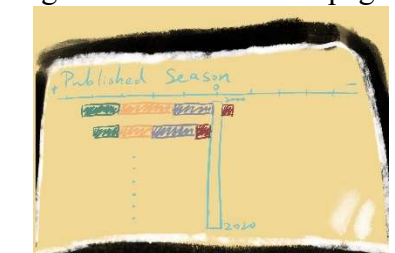


Figure 2.6 Published quarter info page