Narrative Visualization

CS 498 Project (Movie data)

Binghui Zhang

**Message:**

The genres of movies the mass prefer can be reflected by the revenue share of that genre. We observe a consistent trend of high grossing Action movies although other genres might product more movies in number. We also observe that Action, Adventure, Comedy, and Drama are consistently high grossing relatively over the years.

**Structure:**

I choose a martini glass structure for the presentation. The first two pages were limiting in what the audience can see and interact with. In those two pages we convey our observation of the distribution and overall revenue of Action movie in recent years while keeping the audience focused on Action movie and its revenue. We also keep the color coding consistent so that when the user transitions between pages they keep track with the information provided to them.

**Visual Structure:**

The most important aspect of Visual Structure on the first page is size. The user immediately sees how action and comedy movies take up most of the space. Once the user moves to year 2014 the Action portion is consistently large while Comedy shrank. Since what is most important is the relative revenue rather than absolute revenue (Since the data are 20 years apart, we expect inflation to affect the numbers, but the proportion is immune to inflation), I decided to not include detailed revenue number to keep the audience from distracted from the core message.

Another important aspect of visual structure is color choice. I made sure the colors for each genre were consistent through out the report hence the audience can keep track of the important information associated with the genre by cognitively connecting the colors from each page. This helps avoid confusion when transitioning between pages.

**Scenes:**

The Frist scene is an overview of revenue proportion for top five genres for the year 1994 and 2014.

The second scene is a bar chart comparing Action movies and Comedy movies in terms of revenue.

The third scene takes the user back to a pie graph and provide the freedom to explore through different years

The last scene is a bar chart that has the added freedom to substitute the genre compared with Action movies.

The ordering of scenes follows the martini glass structure of narrative visualization, which keeps the audience focused on important massages at first before letting the freedom to explore in detail the data.

The combination of pie graph and bar plot help the audience understand the effects of blockbuster movies and production frequency. The bar plot following each pie graph page helps to add information and help the user to understand the message conveyed in the previous page with more depth and confidence.

**Annotations:**

In the first scene, there are two forms of annotations.

The first is the year label on top of the graph to help the user keep track which year of data is displayed.

The second is the label on top of the pie pieces that indicate what genre does that piece of pie represent.

The annotation changes in that scene as the user select different year to see. The top label informs the user which year they chose, and the pie pieces react to that select and move the label on top of the pie to reflect that change of data.

The second page had less user interaction. The x-axis and y-axis are labeled and annotated to help the user understand the data they are seeing. The legend also helps the user to keep track and make sense of the bars they see. The color choice is intentional and consistent with the first page, which helps users to navigate the scenes.

The third and fourth page have similar annotation strategy as the first two. The only added feature is that the legend label and the selection button both reflect what the user chose.

**Parameters:**

On the first and third page there is a year selection tool. The year parameter affects the displayed data and graph, and there is a unique state for each year selected. Once a new parameter is selected the page updates the graph to reflect the user’s choice.

Similarly, on the last page, there is a dropdown tool to select a movie genre, which affects the state of the bar graph.

**Triggers:**

The first and third page both have a year selector, but in different forms. The first page’s selectors are two buttons that each represent a year of data. The labels on the buttons as wells as the title of the graph connect the user interaction with the button to the change in the data in the graph. Since there are two buttons, it is communicated to the users that they can choose between two sets of data for this page.

The third page’s selector is an input box that allows both input by typing and an up-down arrow selector. The selector also serves as the title of the graph reminiscent of the first page giving the audience a visual queue of its functionality and effects.

On the final page of the report, there is a dropdown list which allows the user to choose between different genres that refreshes in the bar plot. The names in the dropdown list is connected to the legend which connects user interaction to the displayed data.