Narrative Visualization Project: Netflix Originals

By: Hung Nguyen UIUC MCS Summer 2021

Introduction

My narrative visualization uses dataset [1] to visualize Netflix Originals as of June 1st, 2021. The dataset contains 584 films each containing the columns: Title, Genre, Premiere, Runtime, IMDB Score, and Language. The motivation for this project is to help the user narrow down the list of films based on their selection of language, genre, and IMDB Score. This will be visualized by a drill down story hosted at https://hungn2.github.io/NetflixOriginals/.

Messaging

The message that I am trying to communicate with the narrative structure is the breakdown of the number of Netflix Originals based on language, genre, and IMDB Score. Furthermore, at the very end the user will be presented with the list of films that match those filter selections that include all the original columns with hyperlinks to the IMDB's search page for the respective film.

Narrative Structure

The narrative structure is designed to follow to a drop-down/drill-down story by selecting language first, then genre, then IMDB score. The user is first presented with a bar chart containing all films categorized by languages. From there, the user can click on a bar to filter on that language and take them to the next scene. The next scene contains all films in that chosen language, categorized by genre. Again, the user can click on a bar to filter on that genre and take them to the next scene. The next scene will contain all films in the chosen language and genre, categorized by IMDB score. When the user clicks on an IMDB score bin, they will be presented with the last scene. The last scene presents the user with list of films that match those filter selections that include all the original columns with hyperlinks to the IMDB's search page for the respective film.

Visual Structure

The first three scenes that categorize the films by language, genre, and IMDB score are all bar charts. It shows the total count of films that match the filters so far, categorized by the current parameter. There is a footer that provides the user with an explanation on how to understand the data, navigate the scene, and transition to other scenes.

"These charts show a visualization of the number of Netflix Originals as of June 1st, 2021. Hover over a bar to see the exact number of films associated with that category. Click on a bar to filter on that category and drill down further."

The position/height of each bar relative to each other and the provided annotations will urge the viewer to focus on the important parts of the data in each scene (i.e. they'll be drawn to outliers). There is also a filter bar above the bar charts to show what filters/parameters have been applied so far which helps the user understand the current state and how the data connects to the data in other scenes. The title of the bar chart shows how the films are currently being categorized and how they will be filtered next. For example, the text "Filters: All > English > Documentary" shows that the films have already been filtered by English and documentary in the previous scenes. The title "Films Categorized by IMBD Score" show that the next scene will be filtered further by IMDB Score.

Scenes

The scenes of the narrative visualization are:

- 1) Bar chart of all films categorized by language.
- 2) Bar chart of films in the language selected in scene #1, categorized by genre.
- 3) Bar chart of films in the language selected in scene #1 and the genre selected in scene #2, categorized by IMDB score.
- 4) List of films in the language selected in scene #1, the genre selected in scene #2, and the IMDB score range selected in scene #3.

The scenes are ordered this way because a movie watcher would most likely choose their language preference first, then their genre preference, then their IMDB score preference. Each transition to a scene renders a new bar chart (or list) with a startup animation to make it clear to the user that the scene and data has changed.

Annotations

The template for the annotations is to have it appear when the bar chart is finished rendering, and be a block of text that points to the bar of interest. The annotations highlights the message: the breakdown of the number of Netflix Originals. For example, it highlights that films in English far exceeds any other language. Annotations do not change within a single scene because each scene is a static bar chart with data presented up front.

Parameters

The parameters of the narrative visualization are language, genre and IMDB score. The states of the visualization are evident in each scene:

- 1) Scene #1 is the original state with all films shown.
- 2) Scene #2 is a new state with the language parameter selected in scene #1.

- 3) Scene #3 is a new state with the language parameter selected in scene #1, and the genre parameter selected in scene #2
- 4) Scene #4 is a new state with language parameter selected in scene #1, the genre parameter selected in scene #2, and the IMDB score parameter selected in scene #3.

The filter bar above the bar charts (or list) show the parameters applied so far to make the user understand the current state and scene (e.g. "Filters: All > English > Documentary").

Triggers

To transition between state and scenes, the user can click on a bar from the chart to apply that filter/parameter. The footer communicates to the user the options available to them in the narrative visualization:

"These charts show a visualization of the number of Netflix Originals as of June 1st, 2021. Hover over a bar to see the exact number of films associated with that category. Click on a bar to filter on that category and drill down further."

Specifically, the last sentence communicates to the user that they can click on a bar to apply the filter/parameter based on that category to trigger the next scene/state.

References

[1] Netflix Originals Dataset.

https://www.kaggle.com/luiscorter/netflix-original-films-imdb-scores