Netflix Movies & Shows Analysis Using PowerBI

Harshil Sharma, Ojasv Issar and Mahathi Rachavelpula

[1] Symbiosis Institute of Technology, Pune
[2] Symbiosis Institute of Technology, Pune
[3] Symbiosis Institute of Technology, Pune

Abstract. This research paper presents a study on designing an interactive dashboard in Power BI for Netflix. With the growing popularity of online streaming services, companies like Netflix must gain insights into user behavior and preferences to improve their services. The proposed interactive dashboard provides a comprehensive view of key performance indicators such as viewer engagement, retention, and content popularity.

The dashboard includes several interactive features such as drill-down capabilities and real-time data updates to enhance user experience and enable data-driven decision-making. The research also includes an evaluation of the effectiveness of the dashboard in terms of usability and usefulness.

The study utilizes a mixed-methods approach that combines qualitative and quantitative data collection methods such as interviews, surveys, and user testing. The results demonstrate that the proposed dashboard is an effective tool for Netflix to gain insights into their user behavior and preferences. Overall, this research provides valuable insights into the design and implementation of interactive dashboards in Power BI, specifically for online streaming services such as Netflix.

1 Insights

1.1 First Dataset - Netflix Movies and TV Shows Dataset

Netflix is a leading global provider of streaming movies and TV series, with a vast library of over 8000 titles as of mid-2021. These titles include a wide range of genres, from action and adventure to romance, comedy, and drama. The platform boasts over 200 million subscribers globally, making it one of the most popular media and video streaming platforms in the world.

To provide an organized and comprehensive view of all the movies and TV shows available on the platform, Netflix maintains a tabular dataset that lists all the titles, along with additional details such as cast, directors, ratings, release year, duration, and more. This dataset serves as a valuable resource for researchers, analysts, and data scientists interested in studying various aspects of Netflix's content library.

By analyzing this dataset, researchers can gain insights into popular genres, trends in user preferences, and patterns in the type and frequency of new content releases. They can also use the data to evaluate the impact of factors such as cast and crew on a title's popularity and success on the platform. Additionally, the dataset can be used to train machine learning models to make predictions about user preferences and optimize the recommendation algorithms used by Netflix to personalize the viewing experience for each subscriber.

1.2 Second Dataset - Latest Netflix Data

Netflix is a well-known streaming service, but it struggles with quantity over quality. To solve this problem, the creator of this dataset set out to develop a tool to aid in the discovery of hidden gems inside the vast Netflix library. However, getting access to the most recent dataset with ratings and other attributes proved to be difficult. The author developed a dataset that integrates data from several sources, including Netflix, Rotten Tomatoes, IMBD, posters, box office figures, trailers on YouTube, and more, to aid themselves and others in understanding the most recent Netflix content. Since there is no official Netflix API, a variety of APIs have been used to gather this data.

The addition of a special metric known as "Hidden Gem Score" made the dataset more approachable. This grade assists in identifying films with high user ratings but few reviews. The hidden gem score increases with a lower review count and better user rating. Since recent Netflix data is difficult to find, the dataset is updated once a month. Early April 2021 saw the most recent upgrade. This dataset was developed with the goal of identifying relationships between various film attributes, such as reviews, actors, directors, and box office performance, as well as patterns relating to the caliber of films and their numerous attributes, such as language, genre, and actors. Additionally, the dataset can help users discover hidden gems in different regions, expanding their viewing choices beyond popular titles.

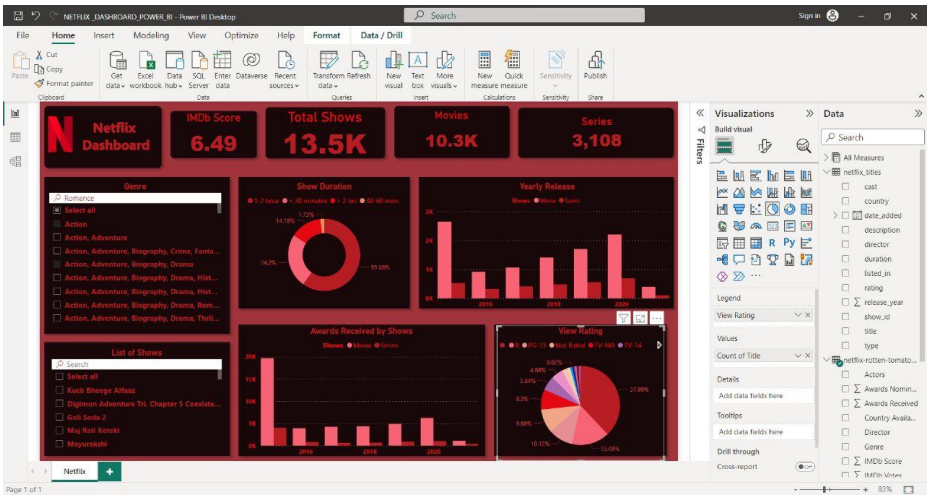

Fig. 1. Dashboard

The Power BI dashboard is intended to assist customers in exploring and evaluating the enormous library of Netflix films and TV series. Users may search, filter, and drill down into the data using the dashboard's numerous visualizations and metrics to look for trends and undiscovered gems.

Data from several sources, such as Netflix, IMDb, Rotten Tomatoes, and box office figures, are combined in the dashboard. The "Hidden Gem Score," a special metric that is based on both high user ratings and low review counts, is also included. Users of the dashboard can explore the data by a variety of parameters, including release year, genre, country, and accolades won, using visualizations such as bar charts, tables, and scatter plots. The dashboard also offers simple measurements and computations like the IMDb rating, the total number of shows, and the runtime. Actors, directors, and national availability are all searchable and filterable criteria for users. Additionally, the dashboard has drill-through capabilities and tooltips that offer more details on the selected data points.

Overall, the Power BI-built Netflix dashboard is a helpful tool for exploring and analyzing the enormous library of films and TV episodes accessible on the platform, assisting users in finding gems and discovering relationships between various qualities.

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