

Netflix Movies & TV Shows Exploratory Data Analysis

Netflix is one of the world's largest streaming platforms, offering thousands of Movies and TV Shows across many genres. Netflix is extremely popular due to the pandemic situation (COVID-19) where people tend to stay home, increasing the rate of streaming subscribers. To understand the patterns within its catalogue, the dataset *"netflix_titles.csv"* from Kaggle was analyzed. The data was processed using a Colab script that visual summaries.

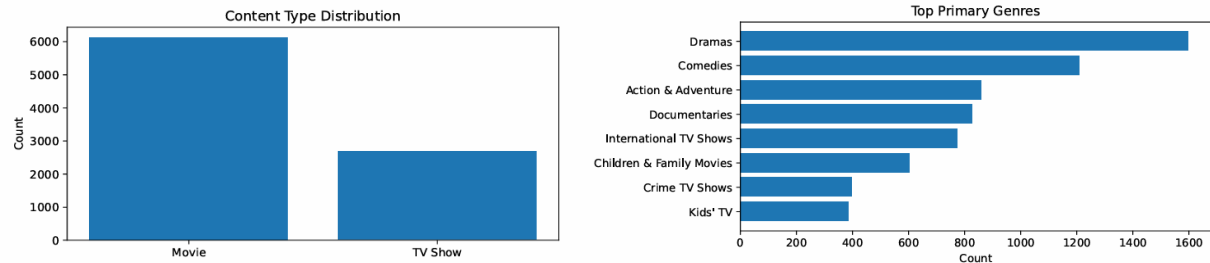


Figure 1: Content Type Distribution & Top Primary Genres

From Figure 1, the bar chart shows that both Movies and TV Shows make up large portions of the Netflix catalogue, with movies appearing twice more numerous. The horizontal bar chart of top genres shows that *Drama* and *Comedy* dominate, followed by *Action & Adventure*, *Documentaries*, and *International TV Shows*. These categories make up most of the titles, reflecting Netflix's focus on emotionally engaging and story-driven content that appeals to a wide audience. This genre concentration suggests that Netflix's global strategy centers around popular genres with broad international reach. However, the presence of niche categories such as *Children & Family* and *Crime TV Shows* indicates Netflix's effort to diversify its content offerings for different viewers.

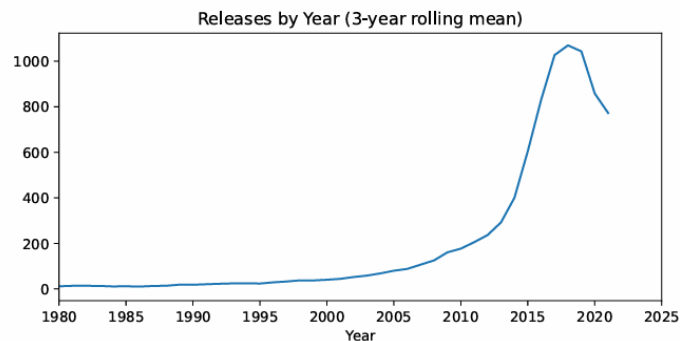


Figure 2: Releases by Year (3-year rolling mean)

From Figure 2, the line graph illustrates a clear rise in the number of releases starting around 2010 and continuing through the 2020s. The steady growth reflects Netflix's shift from licensing existing shows to producing original content worldwide. The 3-year rolling mean smooths short-term fluctuations, revealing a strong upward trend that aligns with Netflix's global expansion and increased investment in original productions. This pattern indicates that Netflix continues to grow its catalogue each year, especially through international collaborations and regional productions. The continuous rise highlights how Netflix has transformed from a streaming service into a major entertainment studio.

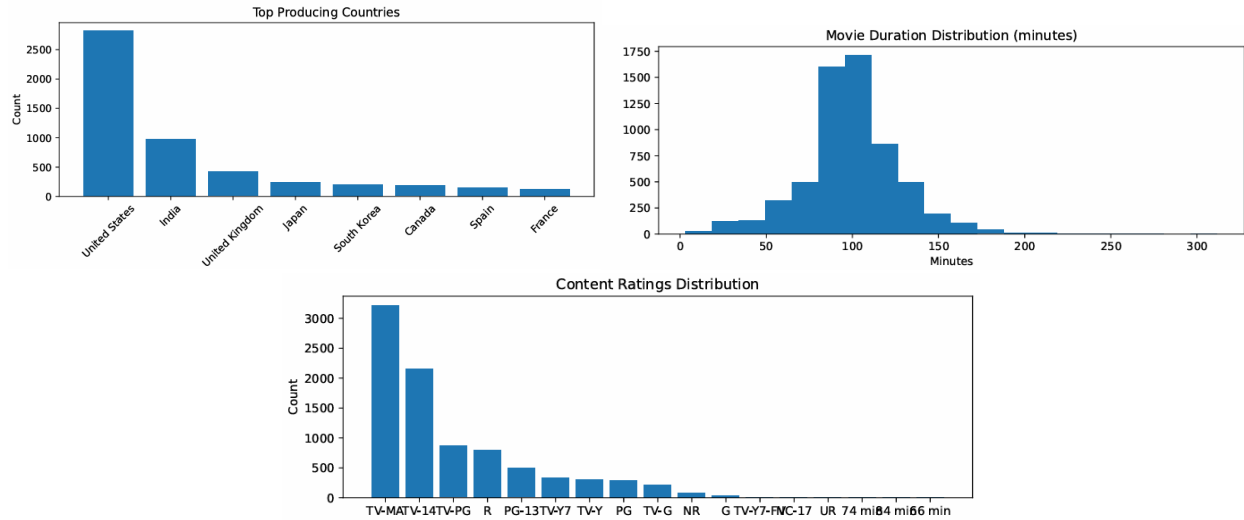


Figure 3: Countries, Duration & Ratings

From Figure 3, the bar chart of top producing countries shows that the United States and India are the leading content sources, followed by the United Kingdom, Japan, South Korea, Canada, Spain, and France. This demonstrates Netflix’s worldwide content acquisition strategy, balancing Western and Asian markets to attract a global audience.

The histogram of movie duration shows most movies range between 80–140 minutes, the standard length for feature films. Only a small portion of movies exceed this range, indicating that Netflix generally favors standard-length productions suited for streaming audiences.

In the content rating distribution, TV-MA and TV-14 are the most frequent categories, followed by PG-13 and PG. This variety of ratings shows Netflix’s effort to serve different audience groups—from adults to families and children. The large proportion of mature ratings suggests that adult viewers are a major audience segment, while family-friendly options ensure inclusivity.

In summary, the analysis shows that Netflix mainly features *Drama*, *Comedy*, and *Action & Adventure* genres, reflecting its focus on popular and engaging content. The number of releases has grown rapidly since 2010 especially from 2015 to 2019, showing Netflix’s shift from streaming licensed shows to producing global originals. The United States and India are the main content producers, followed by other countries such as the United Kingdom, Japan, and South Korea, which highlights Netflix’s global reach. Most movies last between 80–140 minutes, and the ratings range from TV-MA to TV-Y7, indicating that Netflix provides entertainment for both adults and families. Overall, Netflix has built a diverse and balanced catalogue that serves audiences around the world.

GitHub link: <https://github.com/emtanan/Netflix-Movies-TV-Shows>

References: Kaggle. (n.d.). *Netflix Movies and TV Shows*. In *Kaggle Datasets*. Retrieved from <https://www.kaggle.com/datasets/shivamb/netflix-shows>

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