Title: Understanding Content Trends Across Streaming Platforms

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Submitted by -

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Abstract

Streaming services have fundamentally redefined content consumption patterns, challenging the dominance of traditional theatrical releases and significantly reshaping audience preferences. This study delves into content trends across major streaming platforms—including Netflix, Amazon Prime, Disney+, HBO Max, and Apple TV+—by aggregating and analyzing publicly available datasets sourced from Kaggle. Through the use of Power BI for visualization, the research examines critical aspects such as genre distributions, variations in runtime, IMDb ratings, and overall content availability across different platforms. The findings offer valuable insights into platform dominance, content diversity, and the broader implications for the evolving landscape of streaming entertainment, shedding light on how these platforms compete through their content offerings.

1. Introduction

The digital entertainment industry has undergone a profound paradigm shift with the rapid rise of streaming platforms, fundamentally altering how audiences consume content. Services such as Netflix, Amazon Prime, and Disney+ have disrupted traditional television and cinema by providing on-demand content at an unprecedented scale. This transformation raises critical questions about content strategies, audience engagement, and the mechanisms of competitive differentiation among streaming platforms. The objective of this study is to systematically analyze content trends across

these major platforms, leveraging data-driven methods to extract meaningful insights that shed light on the evolving dynamics of the streaming industry.

2. Literature Review

Several studies have investigated the impact of streaming services on the entertainment industry:

- *Success at the Box Office in the Age of Streaming Services* (2020) explores how online platforms influence box office revenue [1].
- *Audience Habits and Preferences for Streaming and Theater-Going in the Age of COVID-19* (2022) examines shifts in viewing behavior due to the pandemic [2].
- *Current Trends in Multimedia Content Consumption via Streaming Platforms* (2019) provides a user-centric survey on streaming preferences [3].
- *PwC's Global Entertainment & Media Outlook* (2024–2028) discusses business model reinventions in digital entertainment [4].

These studies highlight how digital content consumption is evolving, especially with the growing influence of streaming platforms. However, they often lack a detailed comparison of content across multiple services, making it difficult to see how different platforms compete and differentiate themselves. This study fills that gap by using real-world streaming data to analyze content trends, providing insights into how platforms select, organize, and present their content to attract and engage audiences.

3. Methodology

3.1 Data Sources

This study utilizes publicly available datasets from Kaggle, aggregating information on movie and TV show metadata:

- Amazon Prime TV Shows and Movies Dataset [5]
- Apple TV+ Movies and TV Shows Dataset [6]
- Disney+ TV Shows and Movies Dataset [7]
- HBO Max TV Shows and Movies Dataset [8]
- Netflix TV Shows and Movies Dataset [9]
- IMDB Movie Reviews Dataset [10]
- The Movies Dataset [11]

3.2 Data Cleaning & Pre-processing

The raw datasets were cleaned using Jupyter Notebook (Python). Key steps included:

- Handling missing values (e.g., filling ‘age certification’ gaps with ‘Not Rated’)
- Removing duplicate entries
- Standardizing genre classifications
- Aggregating datasets into a unified CSV file for Power BI analysis

3.3 Data Visualization with Power BI

Power BI was used to create interactive visualizations, including:

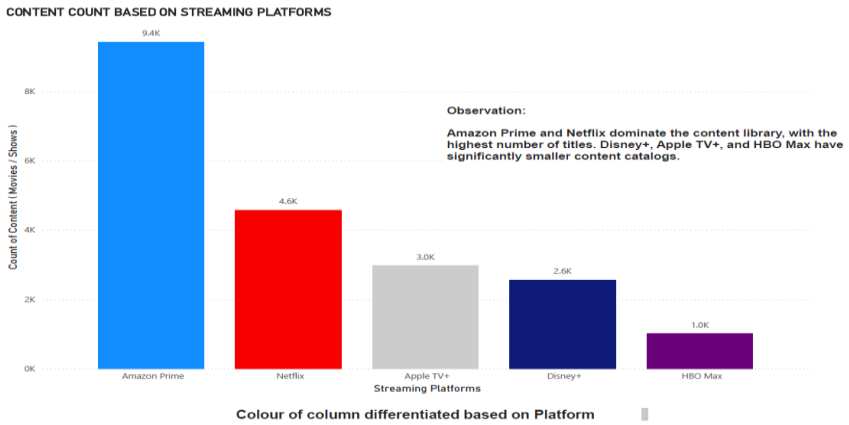
- **Content count per platform**
- **IMDb rating distribution per platform**
- **Average content runtime by platform**
- **Year-wise content release trends**

Footnote: Filters were applied in Power BI to refine data and address outliers in IMDb scores and runtime values.

4. Findings & Analysis

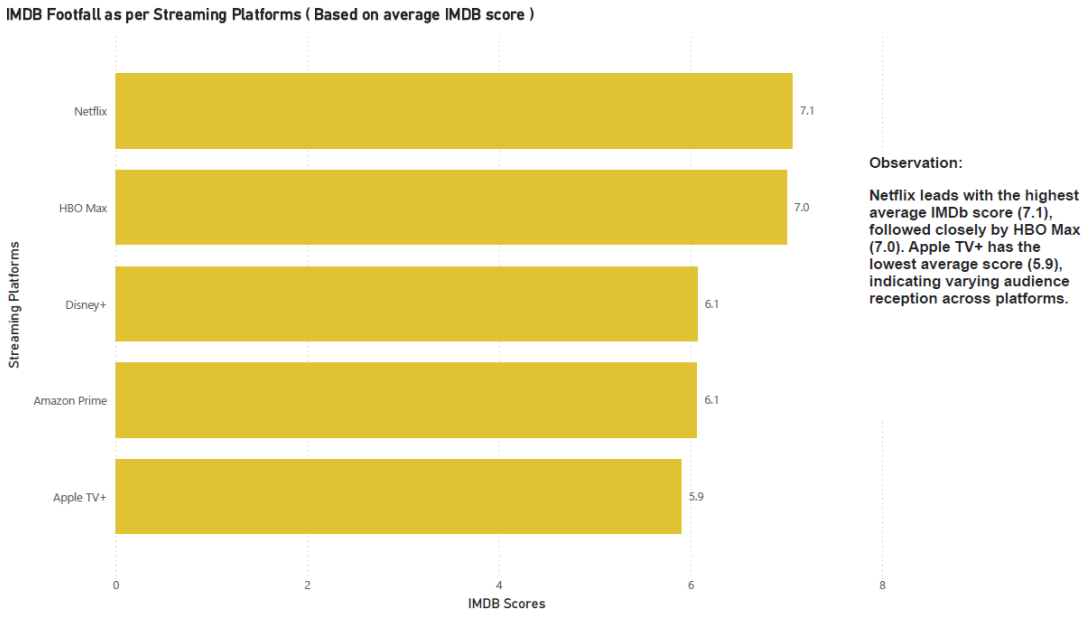
4.1 Platform Content Distribution

Amazon Prime leads in content volume, followed by Netflix. Apple TV+, Disney+ and HBO Max have comparatively smaller catalogs but feature curated content.



4.2 IMDb Ratings & Content Quality

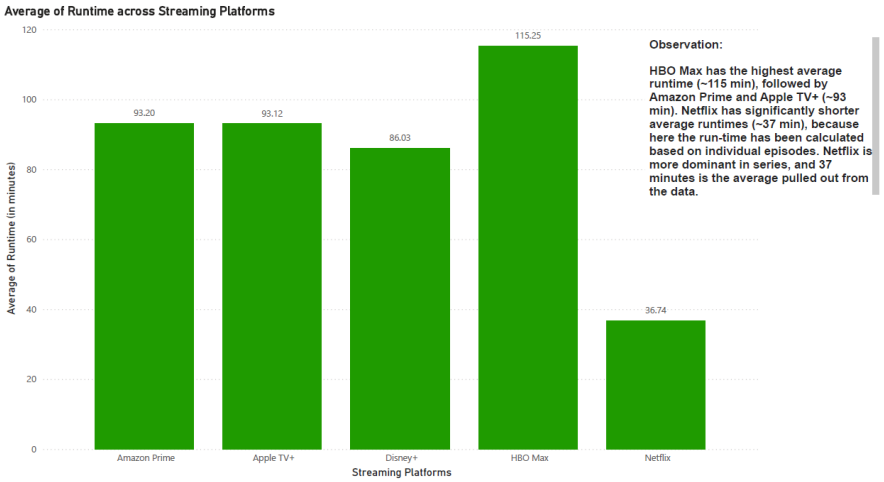
HBO Max and Netflix house content with relatively higher average IMDb scores compared to Amazon Prime's broader library.



4.3 Runtime Trends

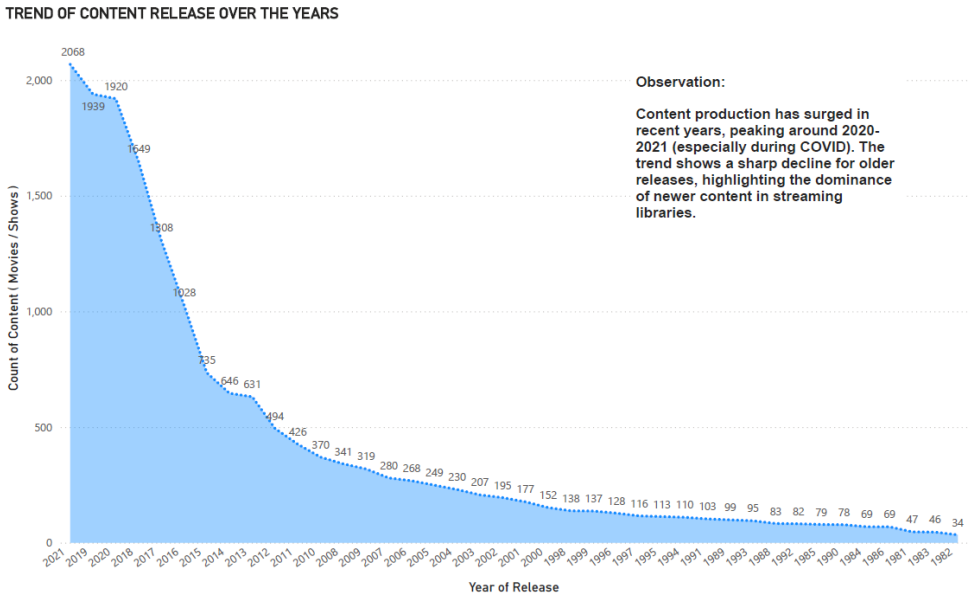
Streaming platforms generally favor feature-length content ranging from 90 to 120 minutes, with fewer long-duration films available. However, calculating the average run-time requires a separate approach, as episodes of a series are counted individually

rather than as a single entity, which can impact overall duration analysis.



4.4 Content Release Trends

Content production surged, peaking in 2020-2021 (especially during COVID), followed by a sharp decline in older releases, emphasizing newer content's dominance in streaming libraries.



5. Discussion

Our findings align with existing research, reaffirming that Amazon Prime holds the largest content library in terms of overall volume, while higher-rated content tends to be more concentrated on platforms such as HBO Max and Netflix. This distinction suggests that while some platforms prioritize sheer quantity to appeal to a broad audience, others focus on curating critically acclaimed or high-quality content to enhance their brand reputation.

Additionally, the increasing dominance of streaming exclusives has led to major strategic shifts in content curation. Platforms are no longer just competing based on the size of their libraries but are increasingly differentiating themselves through carefully curated selections of niche genres and original programming. By investing in exclusive content, streaming services aim to create distinctive identities that cater to specific audience segments, fostering brand loyalty and long-term subscriber retention.

As competition within the streaming industry continues to intensify, these content strategies are becoming crucial in defining a platform’s market position. The ability to balance volume with quality, while also leveraging exclusivity and niche appeal, plays a significant role in shaping audience engagement and influencing subscriber preferences in an ever-evolving digital entertainment landscape.

6. Conclusion & Future Scope

This study offers valuable insights into the content strategies employed by various streaming platforms, shedding light on how they curate and differentiate their content libraries. However, there remain several areas for further exploration that could deepen our understanding of the streaming landscape. Future research could examine:

Viewer engagement metrics across genres: Analyzing how different genres perform in terms of watch time, completion rates, and audience retention could provide insights into content preferences and platform-specific trends.

Impact of exclusive releases on subscriber retention: Investigating how platform-exclusive content influences subscription trends and churn rates could help understand the effectiveness of exclusivity as a competitive strategy.

Integration of sentiment analysis to assess audience preferences: Applying natural language processing to reviews, comments, and social media discussions could reveal audience sentiment toward specific content types, genres, and platform offerings.

By addressing these areas, future studies can provide a more comprehensive picture of how streaming platforms engage audiences and adapt their content strategies in an evolving digital entertainment landscape.

7. References

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Acknowledgement

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