**Module 5: Critical Thinking Assignment**

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MIS581 - Capstone - Business Intelligence and Data Analytics

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July 13, 2025

**Introduction**

In the highly competitive world of digital streaming services, companies constantly seek strategies to increase viewership and profitability while retaining subscribers. The massive growth in streaming consumption over the past decade has intensified the need for platforms to understand what drives audience engagement and revenue. This Capstone Project uses quantitative research to investigate key aspects like the impact of content type, release schedule strategies, and the influence of viewer ratings and online popularity on engagement and profit. Using predictive analytics, this project will help provide data driven recommendations for decision makers within the streaming industry.

The results of this Capstone Project aim to provide actionable insights for streaming platforms that face increasing competition and evolving audience expectations. Understanding which types of content, release patterns, and viewer feedback mechanisms drive profitability and sustained engagement will help platforms optimize their content strategies and improve their competitive positioning in the market. The platforms need a boost, as Alex Weprin, a journalist with the Hollywood Reporter, noted in his 2023 article:

“Netflix now finds itself atop the subscription streaming heap, ending 2022 with 231 million paid subscribers and $5.6 billion in profits. […] The rest of the industry, meanwhile, is looking at 2024. That’s when Disney, NBCU, Paramount and WBD all say they expect — or at least hope — to swing to a profit in their streaming businesses.” (Weprin, 2023).

While Netflix is very profitable, almost all other streaming platforms have not even gotten out of the red. For them to continue to produce and hopefully one day see success, it is important to determine the factors that have helped profitable companies like Netflix get there.

I will gather references and conduct analysis to determine which hypotheses to support/reject and answers to my research questions. I have found multiple sources that will help me find the answers I am looking for. I have gathered articles that report streaming platform profits, statistics that detail viewer and critic ratings, and more to help with this process.

**Objectives and Organizational Benefits**

The following are my objectives for the Capstone Project that I would like to achieve by completing this analysis:

1. Analyze data that includes observations from at least three major streaming platforms to identify the top five content traits linked to higher user engagement and profits.
2. Compare at least three different approaches to content release schedules to determine the most cost effective and high profit strategies.
3. Create a predictive model that helps businesses forecast viewer engagement growth based on content types, release schedules, and genres.
4. Analyze the relationship between viewer ratings and platform profitability using data from at least three major streaming services, if that relationship exists.

The following are potential organizational benefits from the completion of my analysis and this project:

1. Improved content investment decisions: By analyzing what traits are linked to higher or lower profitability and viewership, the business can decide to devote more or less funds to certain projects or licensing fees.
2. Optimize content releases: The business can decide to align with patterns that prove to contribute to a higher rate of engagement or subscriber retention, and ultimately higher profits.
3. Enhance the user experience: By analyzing and better understanding the influence that user ratings/popularity metrics have on audiences, the business can make themselves more competitive and retain subscribers.
4. Predictive modeling: The business can utilize predictive models built based on my analysis that will forecast things like viewer behavior or content success. These forecasts can give the company a competitive advantage and increased profits.
5. Potential cost saving: By analyzing the popularity and engagement of media in different genres, on different release schedules, etc. the company can potentially cut funding to less successful projects and save money.
6. Competitive advantage: The market is flooded with choices for streaming platform subscriptions. The entertainment industry has moved farther away from cable television and the focus has been placed on on-demand, at your fingertips media. With so many choices for consumers, it is important that platforms strive for an advantage over their counterparts. Multiple parts of my analysis aim to provide that advantage whether through better content curation based on engagement rates, more effective release schedules based on profits from past ones, or whatever else.

**Overview of Study**

My study seeks to understand the key drivers behind profitability and sustained engagement across digital streaming platforms. As competition increases and traditional broadcasting fades, platforms must identify what content strategies lead to subscriber retention, increased engagement, and ultimately higher profit margins. This research focuses on three core areas: the type of content offered (original vs. licensed), the effectiveness of various release strategies (binge vs. episodic), and the impact of user feedback and critical ratings on platform success.

Through quantitative analysis of multiple datasets, including content libraries, viewer ratings, subscription statistics, and financial performance across at least three major platforms, this study aims to develop a predictive model for what makes a streaming strategy successful. The study also leverages real world trends and examples. These include Netflix's market dominance and the surprising success of platforms like Pluto TV. This will help me to reject or accept hypotheses and contextualize my results.

Ultimately, this study will offer strategic recommendations for decision makers in the industry who are seeking evidence based practices to optimize their content portfolios, attract and retain subscribers, and increase overall profitability.

**Research Questions and Hypotheses**

To guide this investigation, I developed the following research questions:

1. What types of content are associated with higher profitability and increased viewership on streaming platforms?
2. Are there identifiable patterns in release schedules that correlate with sustained platform success?
3. Do viewer ratings or online popularity metrics significantly influence user engagement and profits on streaming platforms?

These questions aim to address both the operational and strategic challenges faced by streaming services that are investing heavily in content production and licensing. Understanding these factors can help platforms refine their content acquisition strategies, scheduling decisions, and interface design to better meet viewer expectations.

Based on the research questions, I have formulated the following hypotheses:

1. Hypothesis 1
   1. H₀ (Null Hypothesis): There is no significant difference in average viewership and profit margins between streaming platforms that invest more in licensed content versus those that focus heavily on original programming.
   2. Hₐ (Alternative Hypothesis): There is a significant difference in average viewership and profit margins between streaming platforms that invest more in licensed content versus those that focus heavily on original programming.
   3. Answering this question will provide the business’ decision makers with strategies that would increase profits moving forward. For example, based on an article from World Screen, a publication that covers the international entertainment industry: “January [2024] garnered nine of the ten highest daily streaming levels ever, with Saturday, January 13 marking the most-streamed day in history, totaling 40.8 billion minutes streamed–driven by Peacock’s coverage of the first exclusively streamed NFL playoff game.” (Brzoznowski, 2024). This suggests that licensing valuable live or in demand content may provide a competitive edge, but further analysis is required to generalize this effect across the industry.
2. Hypothesis 2
   1. H₀: There is no significant relationship between a consistent release schedule (such as weekly episode releases) and sustained subscriber retention.
   2. Hₐ: There is a significant relationship between a consistent release schedule (such as weekly episode releases) and sustained subscriber retention.
   3. There are differing opinions across the entertainment industry on what strategy is best as Marah Eakin suggested in a Wired article:

“While some industry insiders argue that bingeing is actually better for bringing customers to a streamer’s app—you’ll return multiple times in one week, subliminally absorbing what else is on the service rather than just clicking over once a week for the single program you want—the general public consensus is that “findability,” the act of discovering content on a platform, is almost impossible.” (Eakin, 2024)

This ongoing debate within the industry highlights the importance of understanding release strategies. By examining historical data from multiple platforms, this hypothesis will test whether consistency in scheduling actually translates to better business outcomes.

1. Hypothesis 3
   1. H₀: Viewer and critic ratings (such as Rotten Tomato scores or Letterboxd reviews) are not significantly correlated with high viewership or high profits.
   2. Hₐ: Viewer and critic ratings (such as Rotten Tomato scores or Letterboxd reviews) are significantly correlated with high viewership or high profits.
   3. Viewer ratings and critical acclaim are often leveraged by platforms as promotional tools. Business Insider, the wide known publication, publishes lists of the most popular weekly streaming television shows in the United States. In one of these posts from April of 2021, they analyzed the demand for the TV show and compared it to the Rotten Tomatoes critic rating. It was very interesting to see that one of the most in demand shows, The Handmaid’s Tale on Hulu, at 26.1 times more in demand than the average show, only had a 56% score on Rotten Tomatoes (The Business Insider, 2021). This would lead me to believe that ratings have less bearing on popularity than we would think. This project will assess whether these popularity indicators significantly drive actual engagement and revenue, or if they merely serve as superficial marketing tools/numbers.

**Literature Review**

My process for writing the literature review has focused on gathering a wide range of credible sources to support my topic and problem statements. I have primarily been using the CSU Global Library to search for scholarly articles and industry reports. I use keywords to search like “Streaming Services,” “Customer Churn,” “Streaming Profits,” or “Streaming Services Original Content.” One strategy that has been especially helpful is looking through the bibliographies of the articles/journals that I find. This often leads me to additional relevant sources I might not have come across through keyword searches alone, and it helps me understand how researchers have built on each other’s work overtime.

One challenge I’ve faced is that some articles focus heavily on streaming platforms that are not used in the United States or rely on outdated data, which does not always directly address the factors leading to higher profits today. Because of this, I have had to piece together information from different perspectives and sources to build a clear connection to my topic and make sure my literature review stays relevant. To narrow my focus, I also sometimes include specific streaming platforms in my searches, like Netflix, Hulu, or Disney+, to find articles that discuss their profit trends, original content strategies, and subscriber behaviors in more detail.

Overall, staying organized, taking careful notes, and using the reference lists of strong sources have really helped strengthen my literature review and ensure that I’m covering my topic from multiple angles.

**Research Design - Methodology**

The nine datasets I selected provide a comprehensive foundation for analyzing the key factors that influence streaming service viewership, customer churn, content performance, and overall profitability.

The first dataset, focused on User Churn, allows me to examine the demographics, behaviors, and contract details that contribute to customers leaving. This is critical information for developing retention strategies.

Datasets like Rotten Tomato Scores and the Amazon Prime Video TV Shows with Ratings are most helpful when trying to discern if original content is as popular as licensed content. By looking at the average scores across different platforms, we can see who is implementing the most profitable strategies.

The content lists from different platforms like Disney+ and Hulu give insight to just how much of the library certain companies are devoting to original content, licensed content, or different genres. If a certain streaming service is more successful and has only 20% comedic TV shows and a heavier focus in dramatic movies, then we can try to analyze the correlation between their success and content choices. This gives insight into how reception to content impacts subscriber satisfaction and platform loyalty.

Additionally, the Streaming Services dataset offers an overview of competing platforms’ reach and subscriber counts, which is essential for benchmarking market position and identifying competitive advantages. This also applies to the Netflix Stock Prices dataset, which introduces a financial perspective, enabling us to explore correlations between content strategies, audience reception, and a company’s market performance.

By combining customer data, content ratings, platform comparisons, and financial metrics, I can generate a multidimensional analysis that highlights the drivers behind viewership trends and profitability. Together, these datasets support my goal of developing actionable recommendations that streaming platforms can use to retain customers, produce desirable content, and strengthen their market presence.

**Research Design – Method**

To test these hypotheses, a quantitative research approach using predictive analytics will be employed. The methodology will include descriptive statistics, correlation analyses, regression models, and hypothesis testing through t-tests or ANOVA where applicable.

The research will utilize secondary data gathered from sources like Kaggle such as viewership trends, publicly traded company earnings statements, content library lists, and ratings from established platforms like Rotten Tomatoes and Letterboxd. I will also utilize simulated data that observes a fictitious telecom company’s contracts and user pool.

I will use the following tools and models:

* SAS Studio: SAS Studio will serve as the primary tool for data cleaning, transformation, and conducting advanced statistical tests, such as multiple linear regression and hypothesis testing.
* Microsoft Excel: Excel will be used for preliminary data organization, summary statistics, and simple visualizations that assist in the initial exploration of trends and anomalies.
* Tableau: Tableau will help create interactive dashboards and visualizations to effectively communicate findings to stakeholders, allowing for clear presentation of trends, correlations, and model outputs.

For example, the use of a tool like correlation coefficients will determine the strength and direction of relationships between viewer ratings and actual viewership figures, while using regression models will help test whether variations in profit margins can be explained by content type or release strategy.

**Research Design – Limitations**

While this research aims to offer comprehensive insights, several limitations should be acknowledged:

1. Data Availability and Scope: Much of the analysis relies on secondary datasets. These may not reflect the most recent platform strategies or include proprietary data only available internally to streaming companies.
2. Sampling Bias: Some datasets may overrepresent U.S. based platforms or demographics, limiting the applicability of findings to international markets.
3. Correlation vs. Causation: While the research uses statistical tools like regression to infer relationships, the results may show correlation rather than causation. Viewer engagement may be influenced by factors not captured in the available data.
4. Platform Variability: Each streaming service operates under different business models (some with ads, some subscriber only, etc.), which could affect profitability in ways that are difficult to normalize across datasets.
5. Timeframe Gaps: Some datasets reflect a particular time window (like COVID-19 lockdown periods for example) and may skew behavioral trends not representative of normal user behavior.

These limitations will be carefully considered during the analysis, and findings will be interpreted with caution and clearly contextualized.

**Research Design – Ethical Considerations**

Given the sensitive nature of data in the entertainment industry, strict ethical standards will be followed throughout this project. These include:

* Privacy Protection: This project will not involve the collection or use of any personal or confidential user data. All data will be aggregated from publicly available sources.
* Data Source Credibility: Only reputable and verifiable sources will be used to ensure the integrity and accuracy of the analysis.
* Transparency: Research methods, statistical models, and data sources will be fully documented and disclosed to allow for reproducibility and verification.
* Bias Mitigation: Special attention will be given to identify and address any potential biases in the data. For instance, data that overrepresents specific regions or demographics could skew findings. This will be controlled for during analysis when possible.

By adhering to these ethical considerations, the research will maintain high standards of integrity and respect for privacy, aligning with the broader ethical principles that guide data driven decision making.

**Conclusion**

In an increasingly crowded streaming market, understanding the intersection of content strategy, release schedules, and user perception is essential for platform success. This capstone project provides a structured, data driven approach to identifying which strategies contribute most significantly to profitability and viewer retention.

By exploring the balance between original and licensed content, evaluating how release schedules influence sustained engagement, and measuring the real-world impact of user and critic ratings, this project aims to inform strategic decision making within the digital media space. The use of predictive modeling further enables stakeholders to forecast viewer behaviors and financial outcomes with greater accuracy.

While limitations such as dataset variability and external market influences exist, the study’s findings will offer valuable insights into actionable best practices. These results can support more informed investments in content, refine platform design, and ultimately lead to a stronger competitive position in the fast-moving world of digital entertainment.

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