Northeastern University

College of Professional Studies

ALY 6060 Decision Support & Business Intelligence

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Team 4

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Introduction

Netflix, a trailblazer in the Over-The-Top (OTT) media services, has fundamentally changed how audiences consume content around the world. By offering media content directly via the internet, Netflix bypasses traditional cable and satellite providers, providing a more personalized and convenient viewing experience. Over the years, Netflix has transformed from a DVD rental service into a leading content creator and streaming giant, amassing a substantial global subscriber base.

This report also dives into Netflix's journey, focusing on how data analytics and artificial intelligence (AI) have driven its business decisions and enhanced its product offerings. It also looks at what Netflix needs to do to stay ahead as the Industrial Revolution 4.0 progresses and evaluates its potential to continue meeting global entertainment demands.
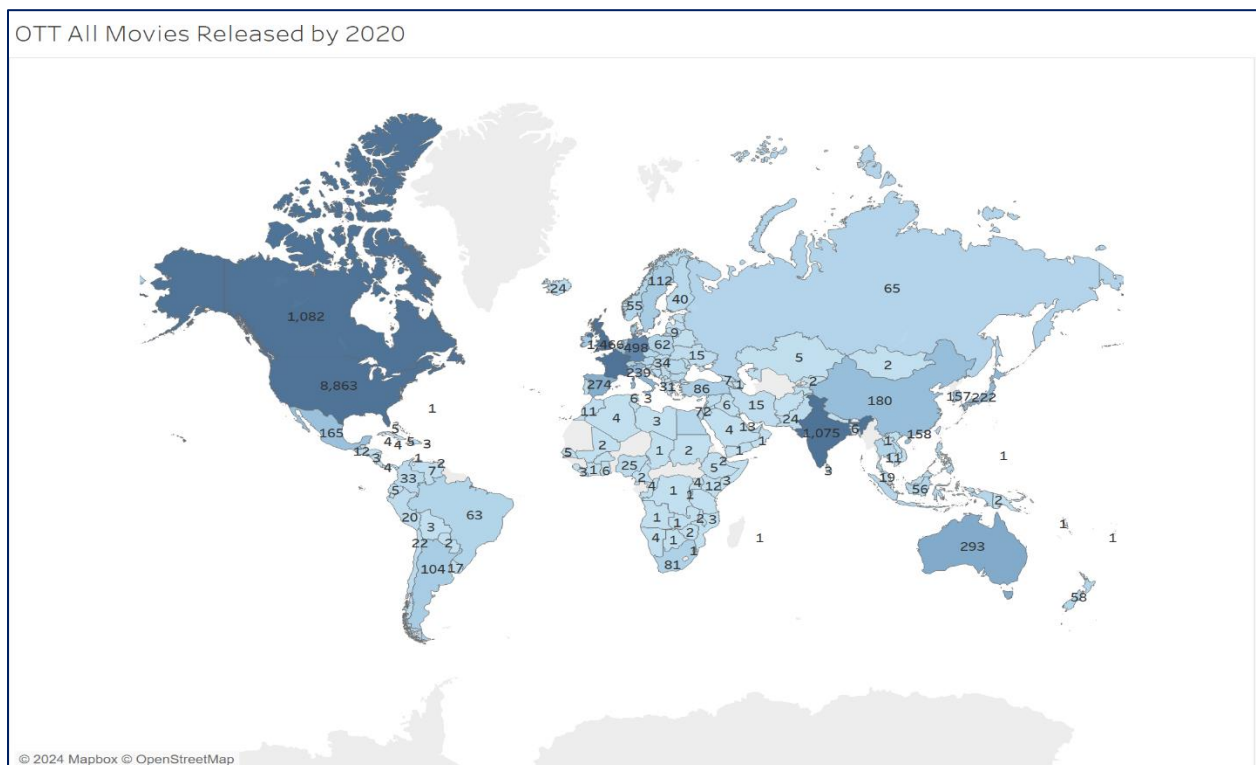
Summary

By harnessing the power of data, Netflix has been able to understand audience preferences, create highly engaging original content, and maintain a strong market presence. The impressive growth in subscribers and market penetration underscores the effectiveness of Netflix's data-driven approach. However, the company faces challenges such as increased competition and regional market issues. To stay ahead, Netflix must continue to innovate and adapt, leveraging new technologies and strategies to meet the changing needs of its global audience. Through continuous improvement and strategic foresight, Netflix is well-positioned to remain a leader in the OTT industry.
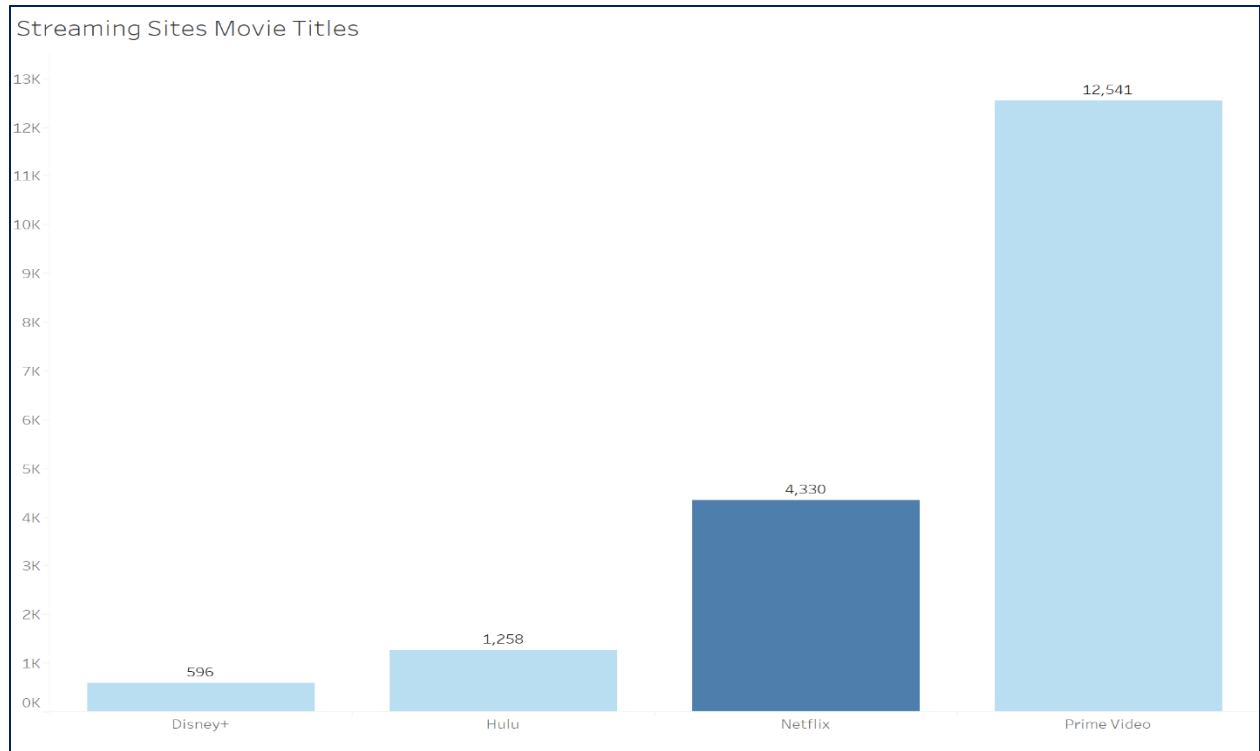
Data Collection and Cleaning

To get a clear picture of Netflix's story, data was collected from various reputable sources like Kaggle, Statista, and Macrotrends. The collection process involved web scraping, API calls, and manual data exports. The data cleaning process included applying filters to remove null data, performing pivot operations, calculating new fields, and creating joins to ensure the dataset was accurate and ready for analysis.

OTT Industry Analysis

The OTT industry has exploded with growth, with major players like Netflix, Amazon Prime Video, Hulu, Disney+, and Apple TV leading the charge. These platforms offer tiered content, providing enhanced services and exclusive content to subscribers. The United States, Canada, the United Kingdom, and India are major markets for OTT services. Among these, Prime Video leads in the number of movies offered, closely followed by Netflix.

OTT All Movies Released by 2020

Streaming Sites Movie Titles

| Platform	Movie Titles
Disney+	596
Hulu	1,258
Netflix	4,330
Prime Video	12,541

Netflix Originals: A Data-Driven Approach

Netflix Originals, which started with "House of Cards" in 2011, have become a cornerstone of Netflix's strategy. By leveraging viewer data, Netflix tailors its content to match audience preferences, resulting in highly successful series and movies. This data-driven approach has not only enhanced viewer engagement but also solidified Netflix's position as a leading content creator. The success of Netflix Originals, such as "Money Heist" and "Sacred Games," underscores the effectiveness of this strategy.

Growth of Netflix

Netflix experienced moderate growth in its subscriber base before 2011, with a 53.6% increase in 2010 and a 33.1% increase in 2011. The launch of Netflix Originals in 2011 marked a turning point, leading to a staggering 445.8% surge in subscribers in 2012. Since then, Netflix has maintained steady annual growth in subscribers, revenue, and profit, typically around 25%-35%. This trend underscores the significant impact of original content on Netflix's growth trajectory.
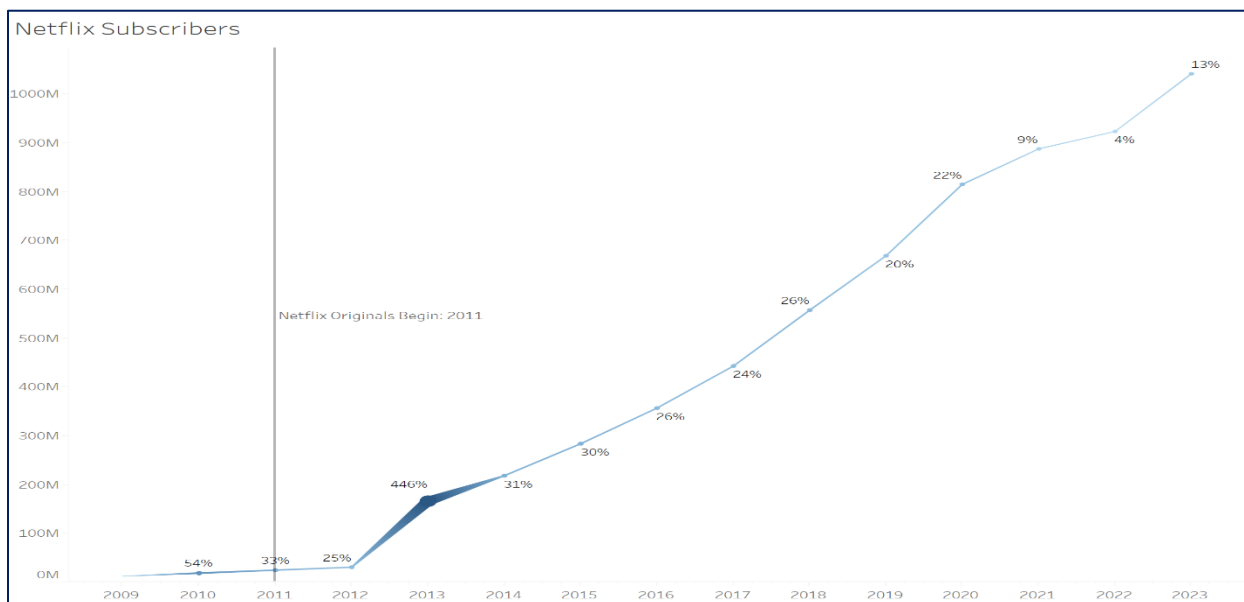
Content Ratings

Netflix Originals stand out with higher average ratings compared to other platforms. The median rating score for Netflix Originals is 6.63, indicating a consistently high level of content quality. This is further emphasized by the presence of top-rated movies with ratings of 10. The comparison reveals that while other platforms have similar content ratings, Netflix's focus on original content has resulted in a superior viewer experience.

Content Ratings Across Platforms
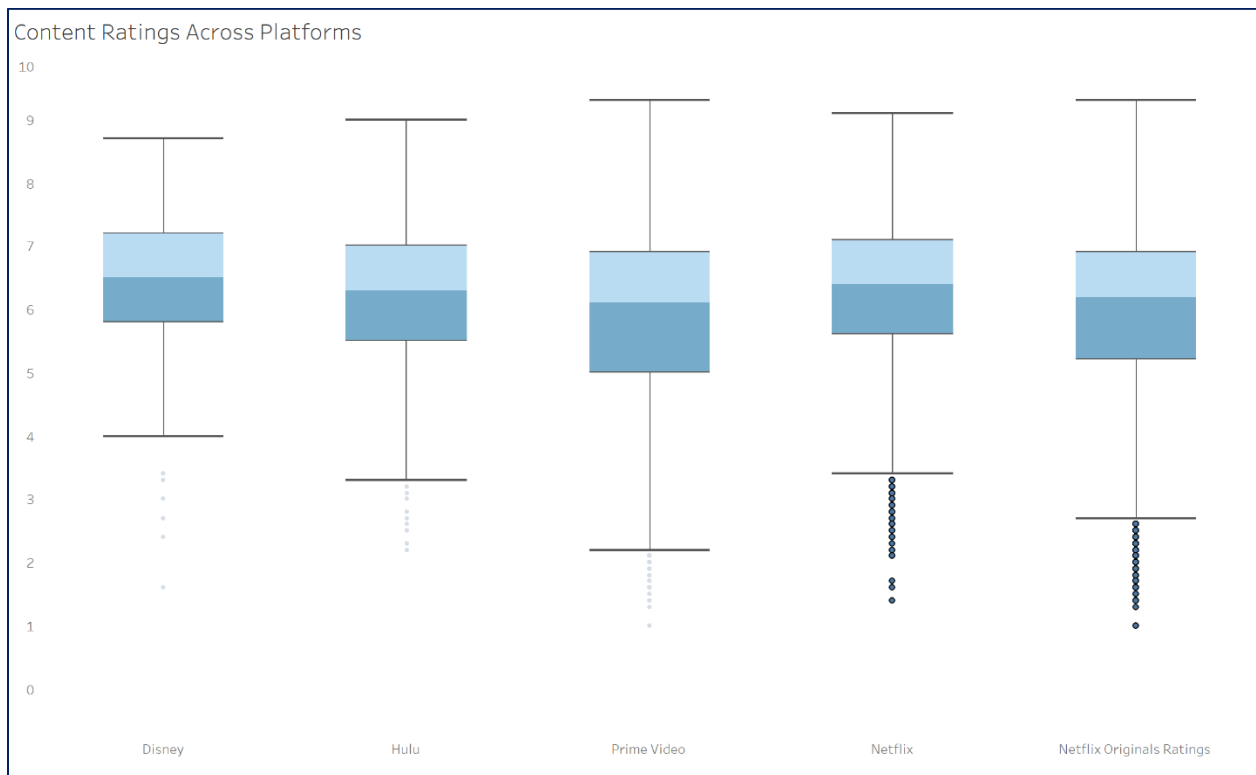
OTT Platforms Pricing

In terms of pricing, Netflix offers competitive plans that cater to a broad audience. The ad-free plan at $15 is cheaper than Hulu's $18 and Max's $16, making it an attractive option for users seeking uninterrupted viewing. Additionally, Netflix's basic plan at $7 is lower than most other leading OTT platforms, enhancing its appeal to budget-conscious consumers. This pricing strategy has contributed to Netflix's strong market position.

OTT Platform Monthly Cost Comparison (in $)
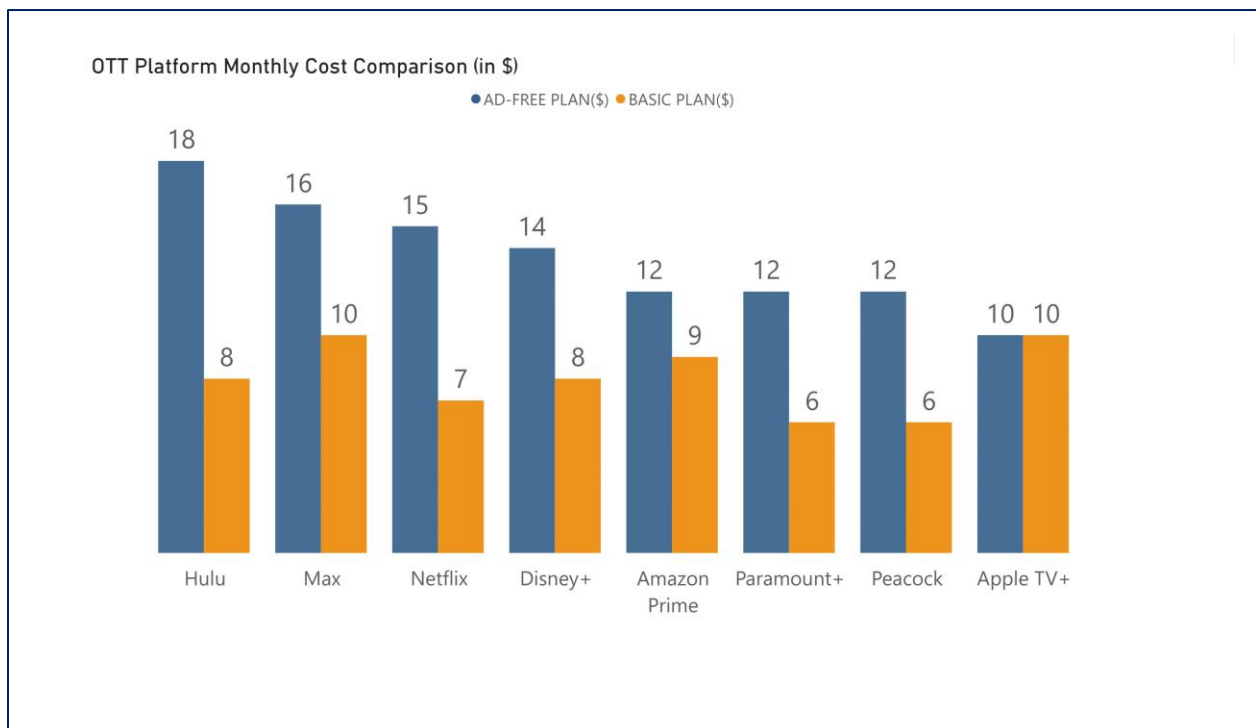
Market Penetration

Netflix leads the OTT market with an impressive 78% penetration, demonstrating its dominance and widespread adoption. Amazon Prime Video follows closely with a 72% penetration, reflecting its substantial user base and competitive offerings. Hulu holds a significant 50% market penetration, showcasing its strong position within the industry. These figures highlight Netflix's lead and the competitive landscape of the OTT market.

OTT Market Penetration rates(%)

Service	Penetration
Netflix	78%
Amazon Prime	72%
Hulu	50%
Disney+	47%
Peacock	27%
Paramount+	25%
Apple TV+	19%
Max	2%
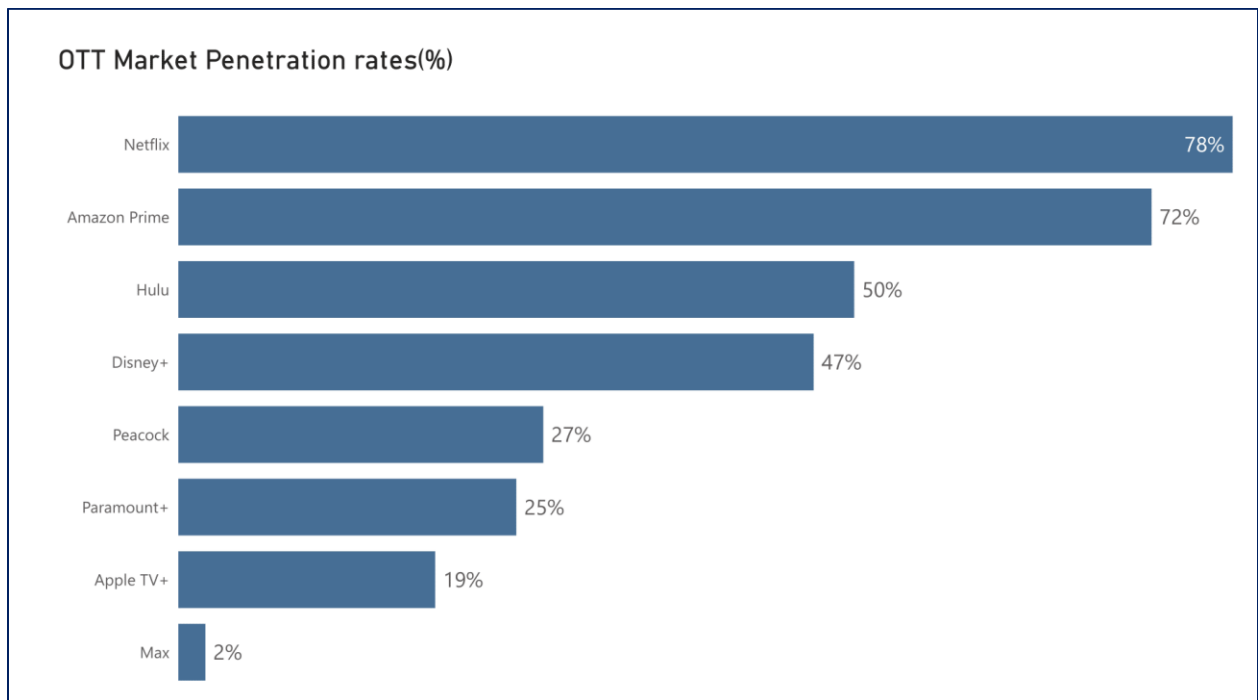
Netflix Originals and Data-Driven Content Creation

The graph comparing Netflix Originals to the broader movie industry highlights how Netflix uses viewer data to tailor its content. This data-driven approach has resulted in highly successful and engaging series and movies, with the United States having the highest number of Netflix Originals. This targeted content creation strategy has significantly contributed to Netflix's growth and subscriber satisfaction.

Netflix Original Films: Top 10 Countries
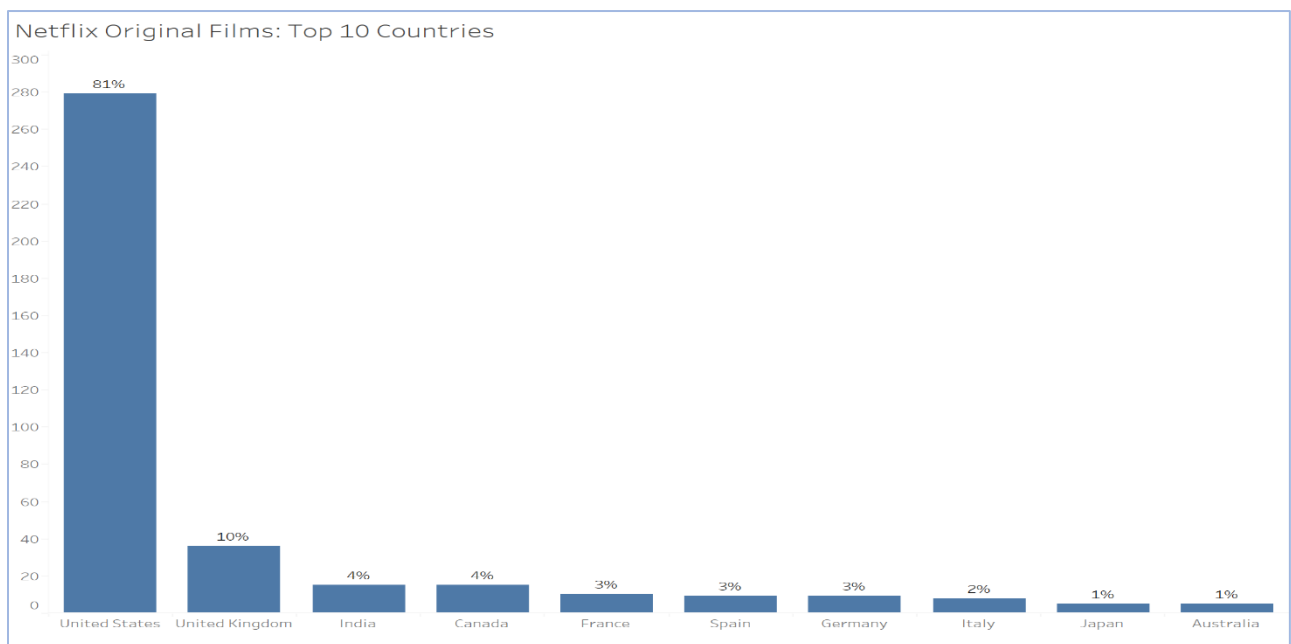
Duration Analysis

The duration analysis graph provides insights into the length of Netflix Originals compared to the broader movie industry. A significant portion of Netflix Originals falls within the 90-120 minute range, which is popular among viewers for offering a balance between depth and engagement. This trend indicates that Netflix is adept at tailoring content lengths to meet viewer preferences, enhancing the overall viewing experience and keeping subscribers engaged.

Duration Analysis for Netflix Originals
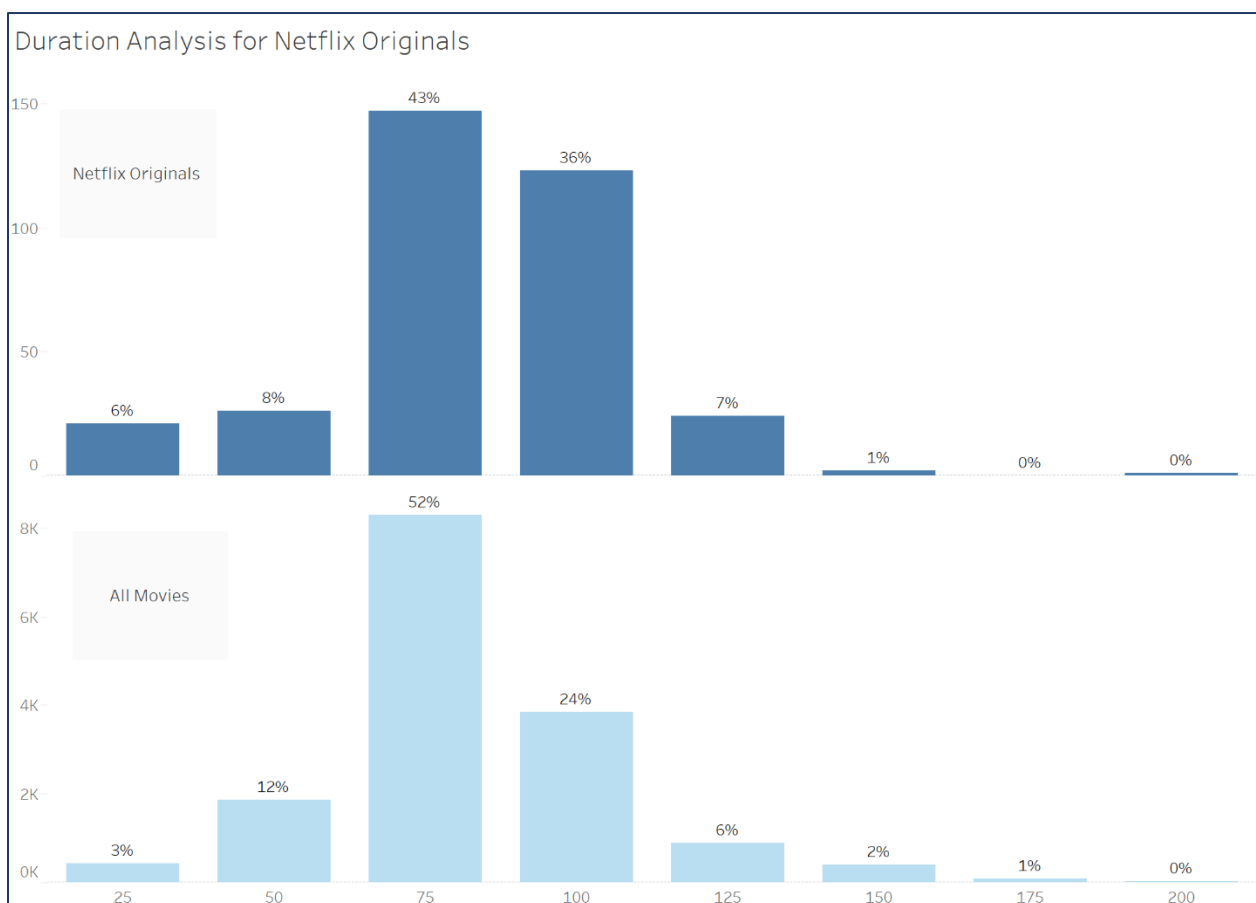
Contribution of Netflix Originals to Genres

The genre contribution graph reveals that Netflix Originals span a wide array of genres, with drama, comedy, and documentaries leading the pack. This diversification allows Netflix to cater to a broad audience with varied tastes and preferences. By investing significantly in original content across different genres, Netflix distinguishes itself from competitors and maintains high levels of viewer engagement through unique and varied offerings.

Contribution of Netflix Originals to Genres

**Genre Grouped**

Genre	Contribution Type	Value
Classics	Netflix Originals Contribution	55%
	All Movies Contribution	58%
Documentary-Like	Netflix Originals Contribution	37%
	All Movies Contribution	24%
Suspense and Horror	Netflix Originals Contribution	7%
	All Movies Contribution	13%
Animation	Netflix Originals Contribution	1%
	All Movies Contribution	0%
Crime	Netflix Originals Contribution	0%
	All Movies Contribution	0%
Reality TV & Talk Shows	Netflix Originals Contribution	0%
	All Movies Contribution	0%
Action and Adventure	Netflix Originals Contribution	0%
	All Movies Contribution	2%
Short	Netflix Originals Contribution	0%
	All Movies Contribution	0%
Speculative Fiction	Netflix Originals Contribution	0%
	All Movies Contribution	2%
Sport	Netflix Originals Contribution	0%
	All Movies Contribution	0%
War	Netflix Originals Contribution	0%
	All Movies Contribution	0%

0.00% 10.00% 20.00% 30.00% 40.00% 50.00% 60.00% 70.00% 80.00% 90.00% 100.00%

Netflix Revenue and Profit

The graph showcasing Netflix's revenue and profit over the years tells a compelling story of growth and success. From 2010 to 2020, Netflix's revenue skyrocketed from about $2.16 billion to an impressive $24.99 billion. This substantial increase reflects the success of its subscription model and aggressive global expansion. Profit margins have also seen a significant rise, demonstrating Netflix's ability to efficiently convert revenue into profit. This steady financial growth underscores Netflix's strong market presence and effective monetization strategies.
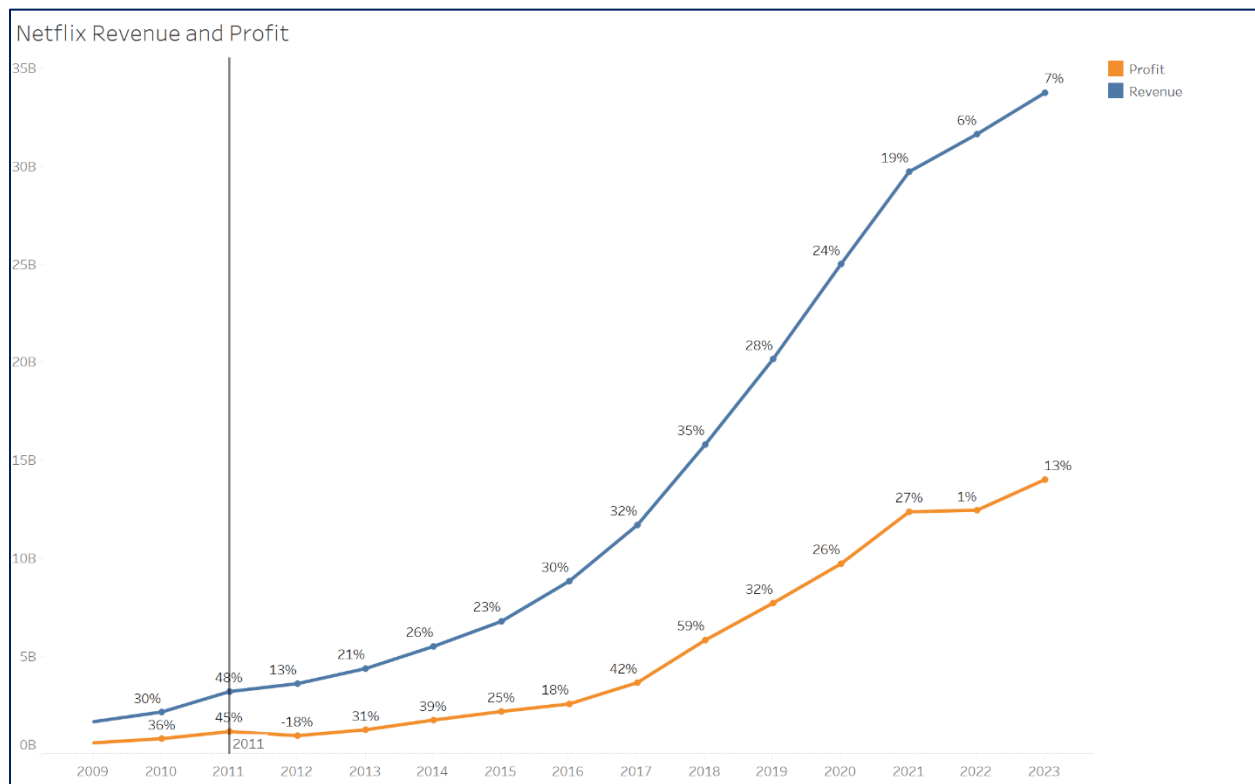
These graphical analyses illustrate Netflix's market dominance, subscriber growth, high-quality content, and competitive pricing. These elements collectively underpin its data-driven success and future potential.

Analysis of the Current Situation and Future Prospects

While Netflix has enjoyed significant success, recent trends indicate a slowdown in growth. Factors contributing to this include increased competition and regional challenges, particularly in markets like India, where compliance issues and cheaper local content have posed hurdles. To sustain its leadership, Netflix must continue to innovate and adapt to the evolving landscape of the Industrial Revolution 4.0.

Industrial Revolution 4.0: Requirements for Netflix

As the Industrial Revolution 4.0 progresses, Netflix will need to focus on several key areas to maintain its leadership:

Advanced AI and Machine Learning: Enhancing its recommendation algorithms and content creation processes through more sophisticated AI and machine learning techniques.

Data Privacy and Security: Ensuring robust data privacy and security measures to protect user information and comply with global regulations.

Global Expansion and Localization: Expanding its content library to include more regional content and languages to cater to diverse global audiences.

Technological Innovations: Investing in new technologies such as virtual reality (VR) and augmented reality (AR) to create immersive viewing experiences.

Sustainability Initiatives: Implementing sustainable practices in content production and streaming infrastructure to align with global environmental goals.

Supporting a Global Need and Future Success

Netflix's role in the global entertainment industry is significant. By providing a vast array of content that caters to various tastes and preferences, Netflix supports the global need for accessible and diverse entertainment. The platform's success hinges on its ability to adapt to changing market dynamics, innovate continuously, and address regional challenges effectively.

Conclusion

Netflix's journey from a DVD rental service to a global streaming giant is a testament to its strategic use of data analytics and AI. By leveraging these technologies, Netflix has made informed business decisions, created compelling content, and maintained a competitive edge. As the Industrial Revolution 4.0 progresses, Netflix must continue to innovate and adapt to sustain its leadership. Despite recent challenges, Netflix's commitment to data-driven decision-making and global content offerings positions it well for future success.

By continually adapting and innovating, Netflix is well-positioned to meet the demands of the Industrial Revolution 4.0 and continue supporting the global need for diverse and accessible entertainment.

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