

**MGT 219 GROUP PROJECT**

# OPTIMIZING NETFLIX'S GENRE INVESTMENT STRATEGY

Using Spreadsheet Modeling  
and Decision Analysis

**LET'S START!**

# WHO ARE THE MEMBERS?

GROUP 2



Kanishka  
Virmani



Neel  
Thakkar



Siddharth  
Patil



Svara  
Narain



Tanya  
Suneja

MANAGE PROFILES



## 🔍 WHAT THIS PROJECT IS ABOUT?

This project explores Netflix's global content library through a data-driven approach, analyzing 8,807 titles across genres, countries, release years, and content types. Using descriptive analytics, correlation and regression modelling, and Solver-based optimization, our study uncovers patterns in Netflix's production focus, genre distribution, and content growth over time. By combining spreadsheet modeling techniques with real-world business questions, the project aims to generate strategic insights that can support Netflix in improving its content investment decisions and aligning its catalog with evolving audience preferences.

## INTRODUCTION

# WHY THIS PROBLEM?

Netflix operates in one of the most competitive and rapidly changing entertainment markets, where content strategy plays a critical role in attracting and retaining subscribers. With a global audience and diverse viewer preferences, Netflix must constantly evaluate what types of content to produce, which regions to focus on, and how to balance genres in its catalog. This project addresses these challenges by using data analytics and modeling tools to understand trends and uncover insights that can guide smarter content investment decisions.

# WHAT DATA WE USED

Our analysis is based on the Netflix Titles dataset containing 8,807 movies and TV shows with information on genre, country, release year, rating, and content type.

## DATA BREAKDOWN

1

What information does the dataset include?

- Title, type, genre, country
- Release year, rating, description

2

How did we prepare the dataset?

- Cleaned missing values
- Standardized formats
- Split multi-genre fields

3

Why is this dataset suitable for our analysis?

- Global coverage (190+ countries)
- Wide timespan (1920–2021)
- Supports descriptive, regression, and optimization models

# METHODOLOGY USED

# 3

## CORRELATION & REGRESSION

- IDENTIFIED RELATIONSHIPS BETWEEN KEY VARIABLES
- ASSESSED CONTENT AND REGIONAL CLUSTERING

# 4

## SOLVER OPTIMIZATION

- CREATED OBJECTIVE FUNCTION TO MAXIMIZE CONTENT VALUE
- APPLIED CONSTRAINTS BASED ON COUNTRY-LEVEL CONTENT PRODUCTION

# 5

## INTERPRETATIONS

- CONNECTED ANALYTICAL RESULTS TO STRATEGIC DECISION-MAKING

## DATA CLEANING AND PREP

- REMOVED DUPLICATES AND MISSING VALUES
- STANDARDIZED FORMAT AND SPLIT MULTI-GENRE FIELDS

## DESCRIPTIVE ANALYTICS

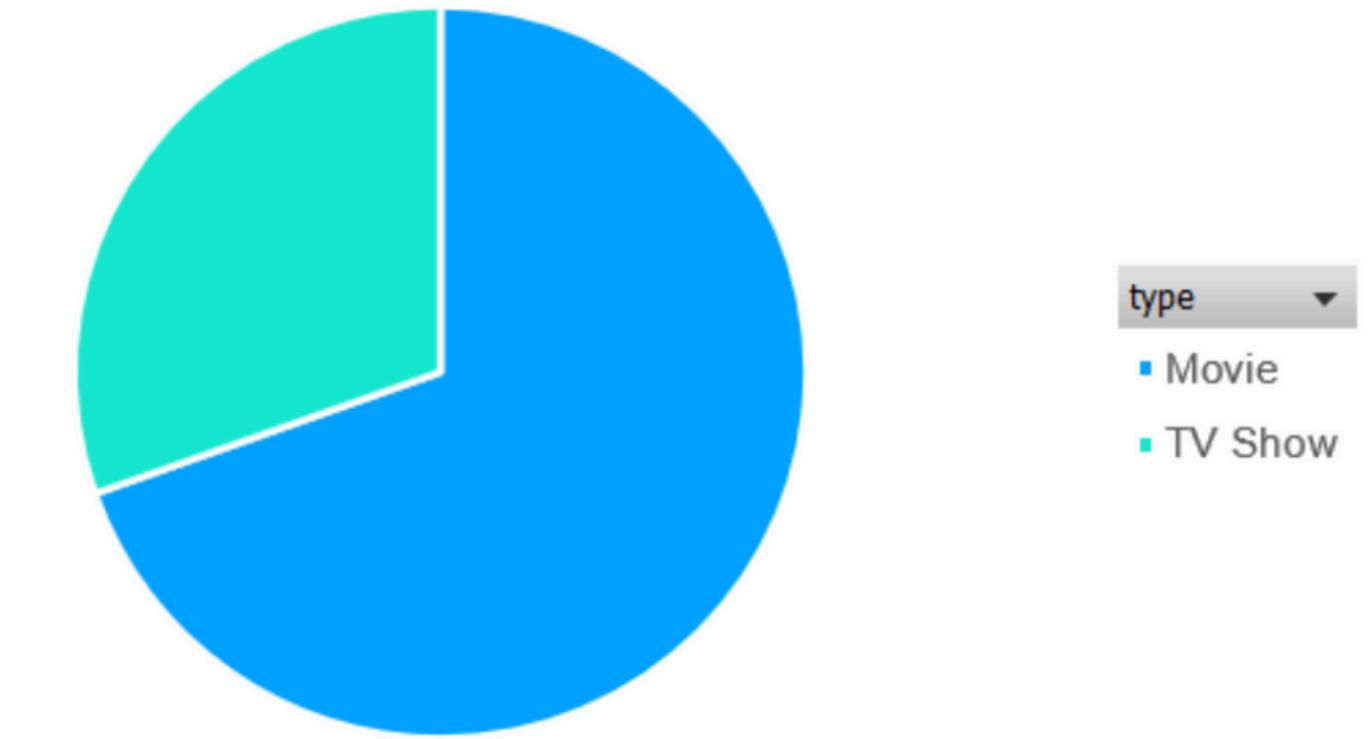
- VISUAL TRENDS BY GENRE, TYPE, COUNTRY, AND RELEASE YEAR
- SUMMARY STATISTICS AND DISTRIBUTION PATTERNS

# 🔍 FINDINGS: MOVIES VS. TV SHOWS

## Overall Content Distribution

- Movies: 69% of total titles
- TV Shows: 31% of total titles
- Movies dominate Netflix's global content library
- Reflects Netflix's early reliance on licensed films
- TV show production increases significantly post-2018

Netflix Content Split: Movies vs TV Shows





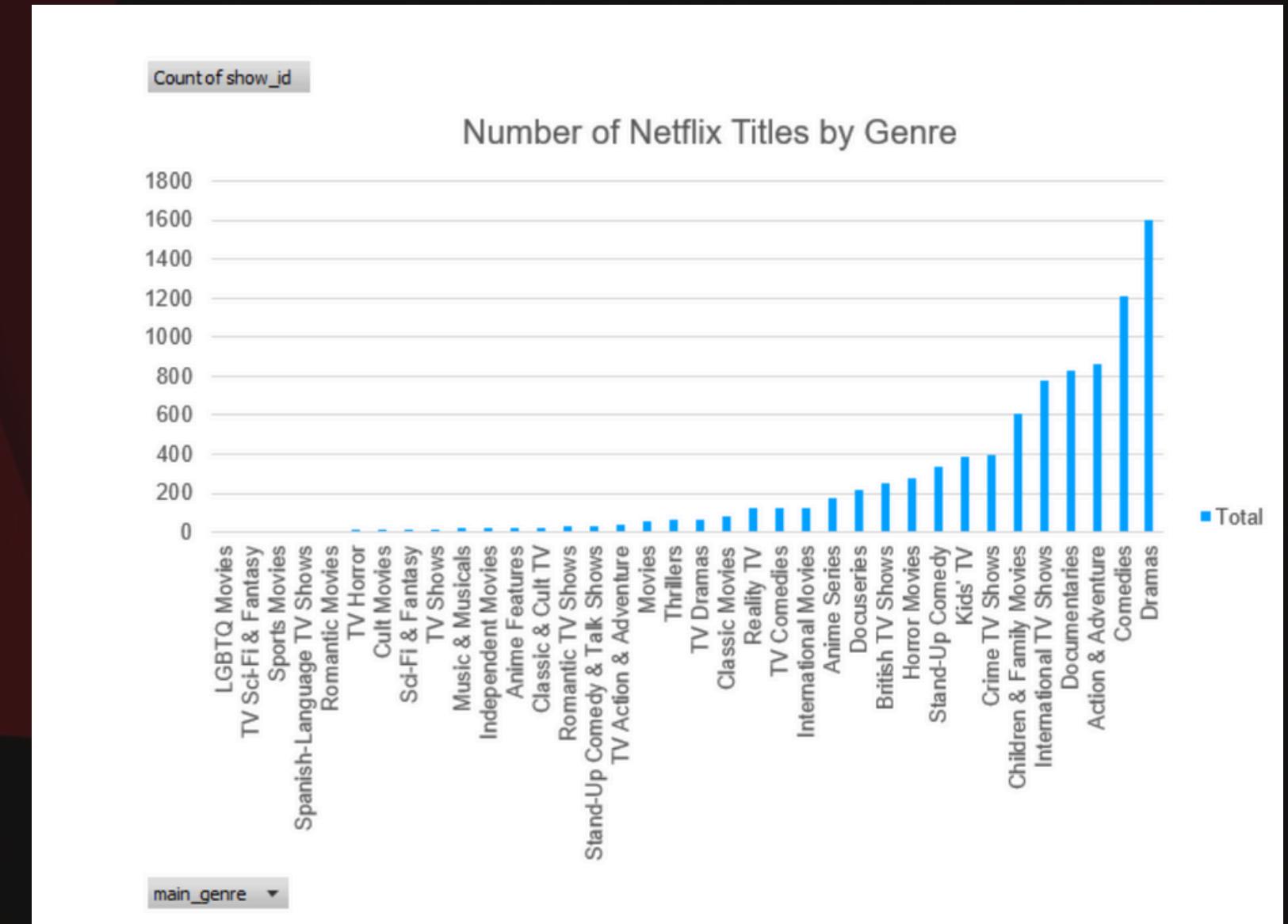
# 🔍 FINDINGS: WHICH GENRES DOMINATE NETFLIX?

## Top Genres on Netflix

- Drama is the most dominant genre
- Followed by Comedy and Documentary
- Genres like Music, Classics, and Sci-Fi are underrepresented

## Key Observations

- Strong concentration in story-driven genres (Drama/Comedy)
- Limited variety in niche or specialized genres
- Opportunity for Netflix to diversify into underserved categories



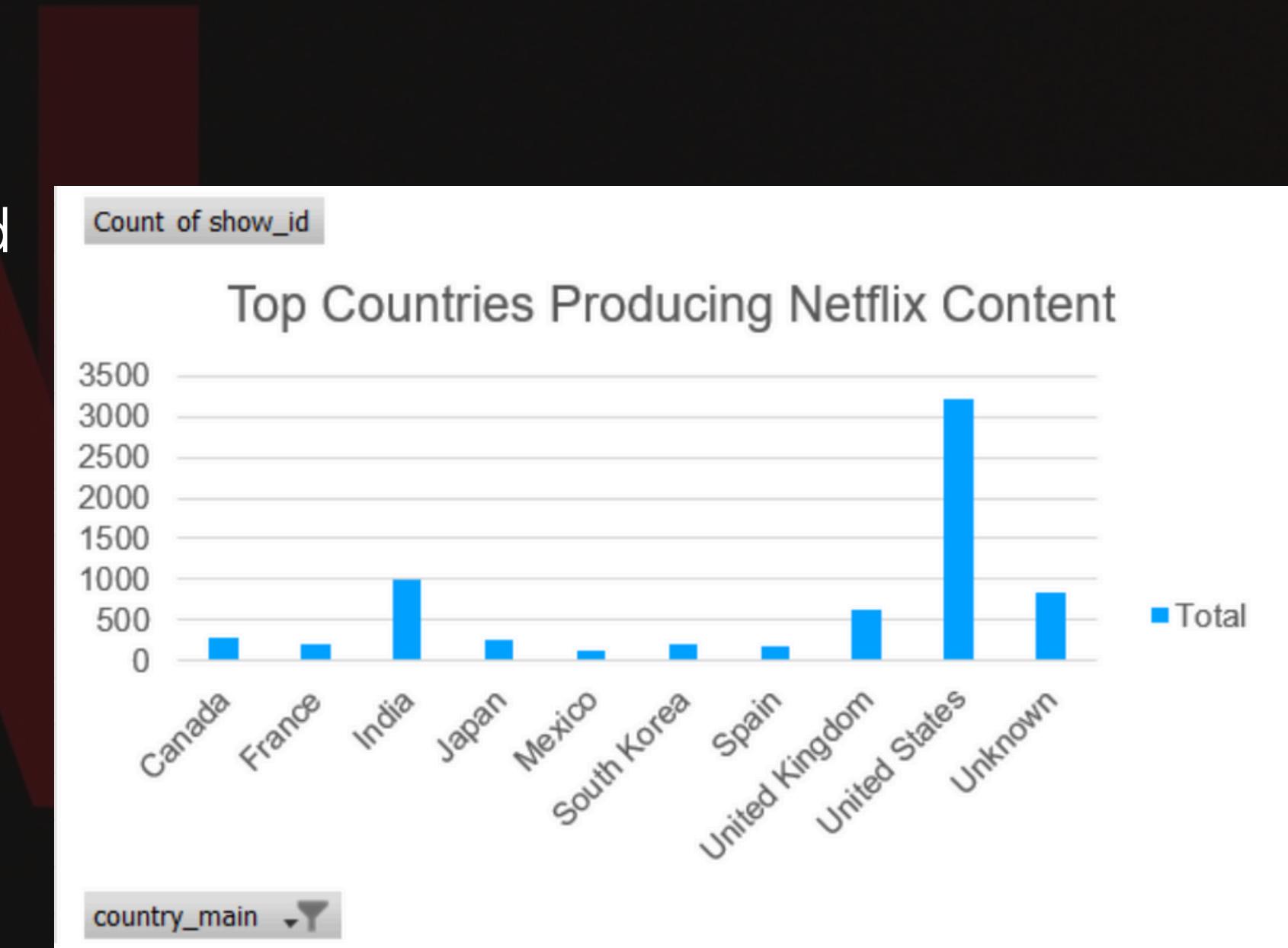
# 🔍 FINDINGS: COUNTRY & REGIONAL TRENDS

## Top Content-Producing Countries

- United States has the largest share of Netflix titles
- Followed by India, United Kingdom, and Canada
- Strong emerging contributions from Japan, South Korea, and European countries

## Key Observations

- Heavy concentration of content from Western countries
- Sharp growth in Asian content due to rising demand
- Regional diversity is increasing but still uneven



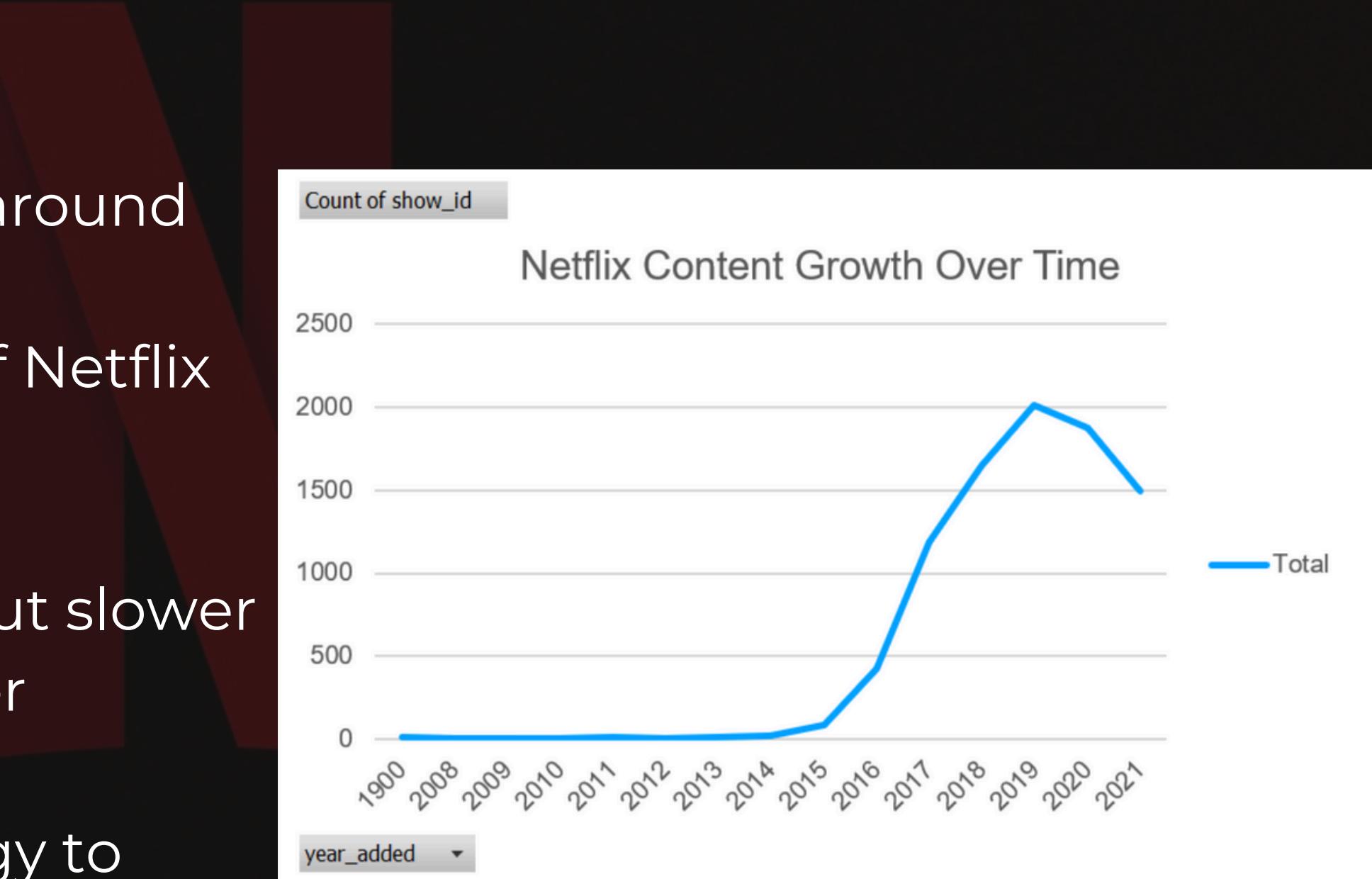
# 🔍 FINDINGS: CONTENT GROWTH TRENDS

## Overall Growth Trend

- Significant increase in content production after 2015
- Sharp rise in TV shows starting around 2018
- Growth aligns with expansion of Netflix Originals globally

## Key Observations

- Movie growth remains steady but slower
- TV shows drive recent subscriber engagement
- The shift reflects Netflix's strategy to create franchise-style, long-term viewer retention content



# 🔍 FINDINGS: CORRELATION & REGRESSION INSIGHTS

## Correlation Highlights

- Movies show wider regional distribution than TV shows
- TV shows tend to cluster in fewer countries (primarily U.S., U.K., India)
- Age ratings show mild association with content type
- Weak correlation between release year and genre diversity

## Regression Insights

- Country count moderately predicts content type (movies vs. TV shows)
- Limited predictive power due to categorical variables
- Suggests that external market factors, not dataset attributes alone, drive content type decisions

# 🔍 FINDINGS: SOLVER OPTIMIZATION MODEL

## Objective

- Maximize total content production value across countries

## Constraints

- Minimum and maximum content production limits
- Country-based capacity constraints
- Non-negativity constraints (no negative content allocations)

## Solver Output

- Optimal production allocation favors:
  - United States
  - India
  - United Kingdom
- These regions offer the highest contribution to maximizing total value

Genre	Count of Titles	Budget Share	Weighted Titles
Dramas	1600	0.30	480.00
Comedies	1210	0.30	363.00
Action & Adventure	859	0.05	42.95
Documentaries	829	0.05	41.45
International TV Shows	774	0.05	38.70
Children & Family Movies	605	0.05	30.25
Crime TV Shows	399	0.05	19.95
Kids' TV	388	0.05	19.40
Stand-Up Comedy	334	0.05	16.70
Horror Movies	275	0.05	13.75

**Solver Budget Allocation Table**

## Strategic Insights Based on Findings

- **Diversify Genre Portfolio**

- Diversify Genre Portfolio
  - Expand underrepresented genres (Sci-Fi, Classics, Music)
  - Reduce over-reliance on Drama and Comedy

- **Strengthen Regional Content Strategy**

- Strengthen Regional Content Strategy
  - Prioritize U.S., India, and U.K. (highest production value)
  - Expand investment in emerging markets (Japan, South Korea, Europe)

- **Balance Movies and TV Shows**

- Balance Movies and TV Shows
  - Rising demand for TV series supports subscriber retention
  - Continue steady—but selective—growth in movie production

- **Use Analytics for Decision-Making**

- Use Analytics for Decision-Making
  - Integrate regression and optimization models for planning
  - Data-driven allocation improves portfolio efficiency



# LIMITATIONS: WHAT WE COULDN'T COVER

## DATASET CONSTRAINTS

- No data on viewership, watch-time, or engagement
- Limited information on production budgets or costs
- Dataset ends in 2021, missing recent Netflix releases

## ANALYTICAL CONSTRAINTS

- Categorical variables limit regression power
- Lack of financial metrics restricts ROI-based modeling
- Optimization model simplified due to missing cost and capacity data

## INTERPRETATION BOUNDARIES

- Findings reflect available data, not full market conditions
- Cannot measure content profitability or competitive impact

# CONCLUSION

## Key Takeaways

- Netflix's catalog is dominated by movies, but TV shows are driving recent growth
- Content production is heavily concentrated in the U.S., India, and U.K.
- Genre distribution is imbalanced, with strong emphasis on Drama and Comedy
- Statistical analysis suggests regional and strategic factors play a larger role than dataset variables alone
- Solver optimization identifies high-value regions for strategic content investment
- Data-driven modeling can enhance Netflix's planning and long-term strategy

# THANK YOU!

## ANY QUESTIONS?

► End