# Netflix Case Study

Prepared by: Martin Guevara
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# The Scenario

- Netflix is a subscription-based streaming service that allows its members to watch TV shows and movies on an internet-connected device.

- As of 2024, the streaming industry is [valued at $544 billion.](#) Netflix currently leads the market with over 247 million users, but is facing growing competition from services like Prime Video, Disney+, Max, AppleTV, and more.

# The Problem

## How do we differentiate our content from other streaming services?

# The Agenda

Questions

Dataset of Choice

Analysis

Observations

Recommendations

Conclusion

# Questions

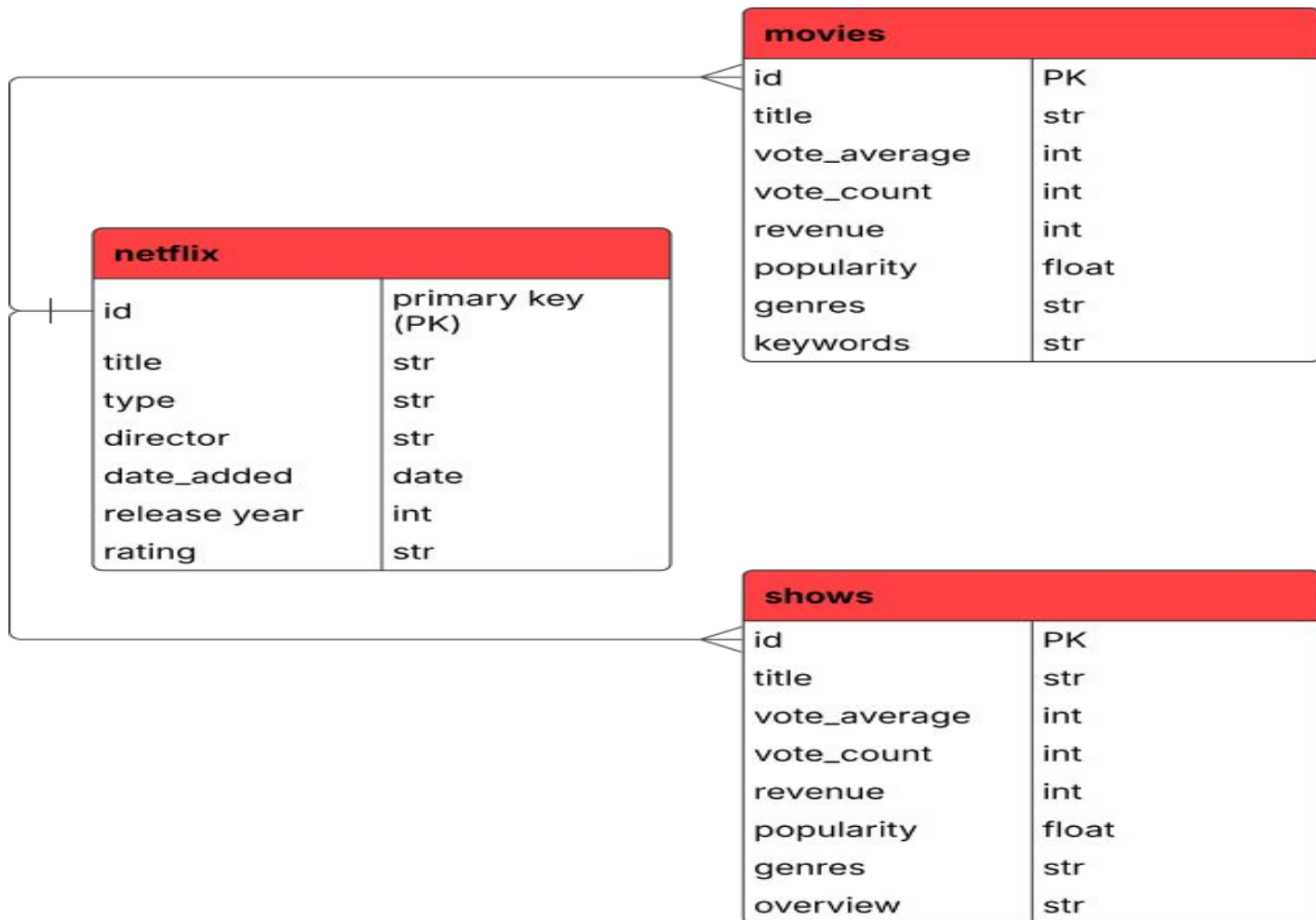**What are the genres Netflix is most associated with?**

**Who is Netflix's ideal viewer?**

**What are the most common words across Netflix's content?**

# Dataset of Choice

- I will be using three datasets: **Netflix Movies & TV Shows, Full TMDB Movie Database,** & **Full TMDB TV Shows Database**

- The **Netflix** table contains data about content (movies & TV shows) released on the platform from 2016-2021

- The **TMDB databases** contains over 1.2 million observations about movies and TV shows which includes additional details (such as genre, keywords, and popularity)

- **Tools used**: RStudio, Tableau, Google Sheets

## movies

| id | PK |
|---|---|
| title | str |
| vote_average | int |
| vote_count | int |
| revenue | int |
| popularity | float |
| genres | str |
| keywords | str |

## netflix

| id | primary key (PK) |
|---|---|
| title | str |
| type | str |
| director | str |
| date_added | date |
| release year | int |
| rating | str |

## shows

| id | PK |
|---|---|
| title | str |
| vote_average | int |
| vote_count | int |
| revenue | int |
| popularity | float |
| genres | str |
| overview | str |

# Analysis

## Genres

- The **type of story** users watch

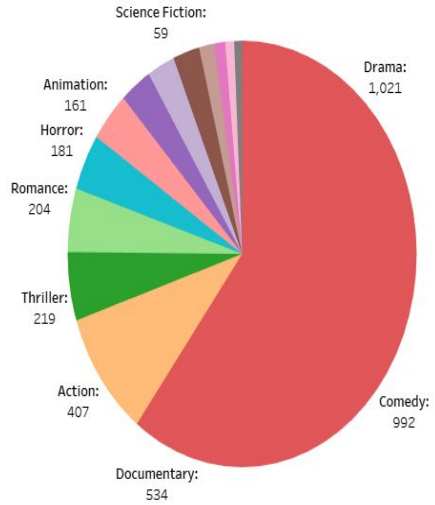- **Variables used:** *genre, date_added, count of movies/shows*

## Ratings

- A measure of **age demographics**

- **Variables used:** *ratings, date_added, genre, keywords, count of movies/shows*
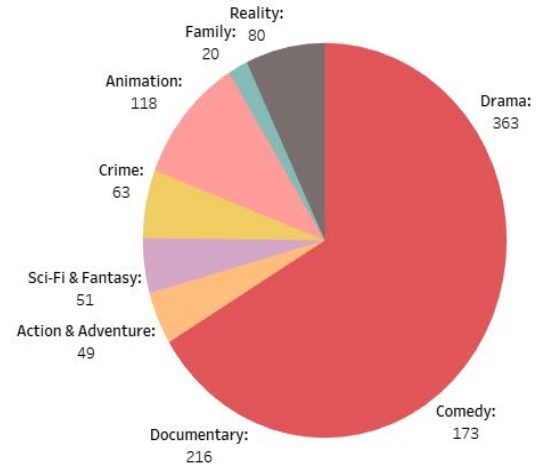
## Keywords

- **commonly used words** associated with content

- **Variables used:** *keywords, description, count of movies/shows*

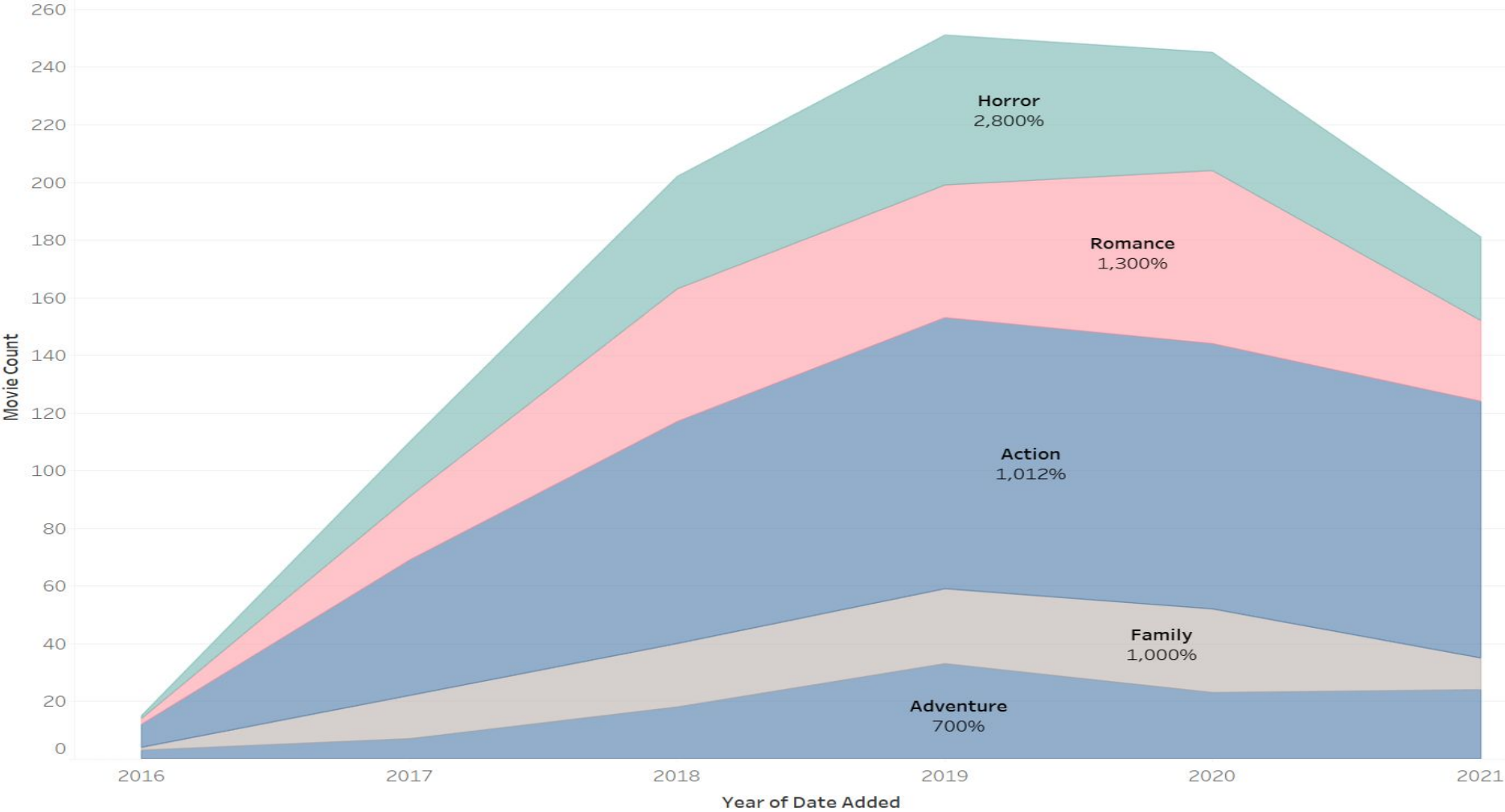# Genres

## Netflix Movie Genre Distribution



- Science Fiction: 59
- Animation: 161
- Horror: 181
- Romance: 204
- Thriller: 219
- Action: 407
- Documentary: 534
- Comedy: 992
- Drama: 1,021

## Netflix TV Show Genre Distribution



- Reality: 80
- Family: 20
- Animation: 118
- Crime: 63
- Sci-Fi & Fantasy: 51
- Action & Adventure: 49
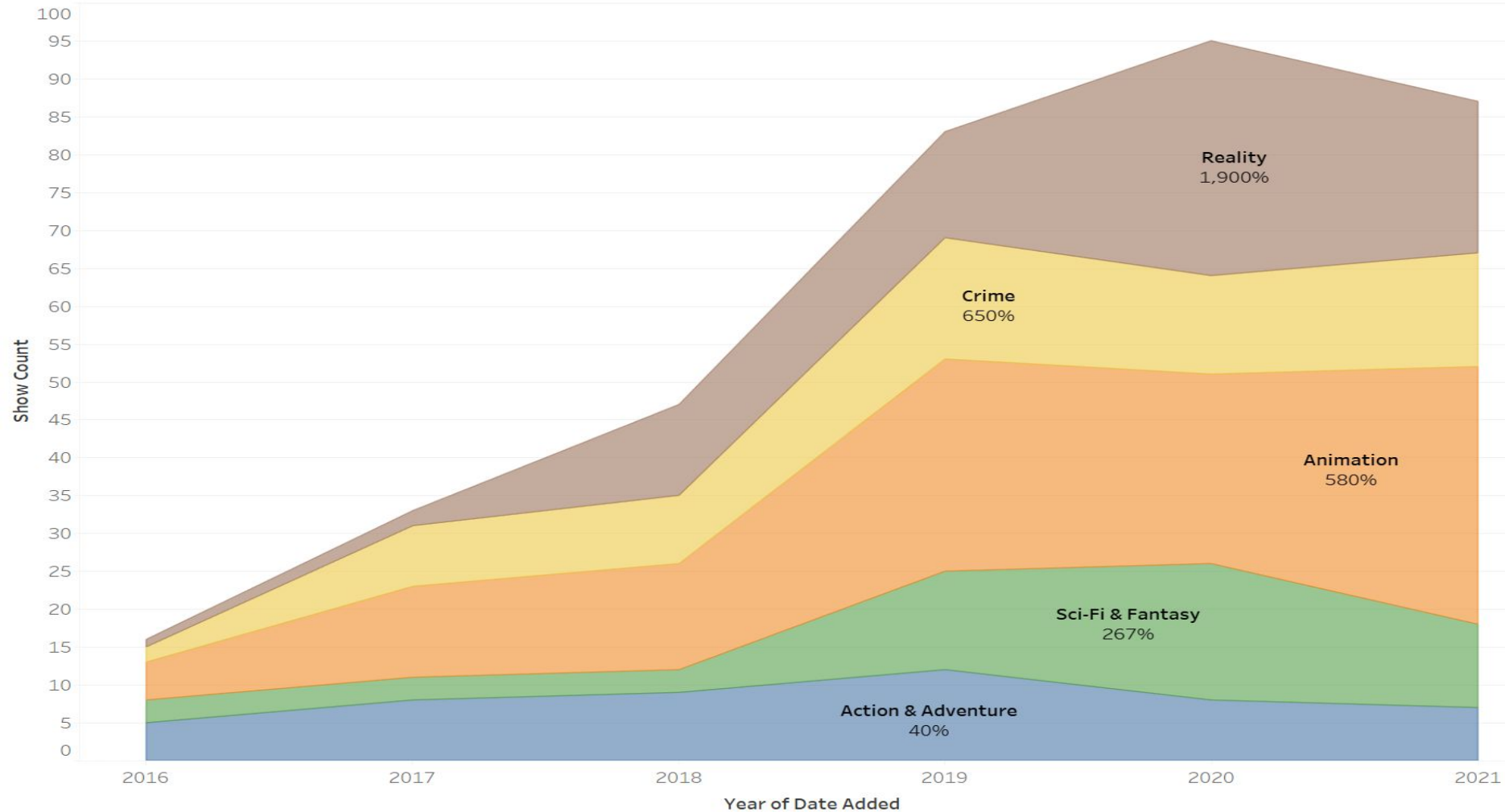- Documentary: 216
- Comedy: 173
- Drama: 363

# Genres

- **Drama, Comedy, & Documentary** dominated Netflix's catalogue for *both* movies and television

- However, between 2016-2021, these genres saw the most growth outside of the three above:
  - **Movies: *Horror*** (2800% cumulative growth), ***Romance*** (1300%), ***Action*** (1012%)
  - **Shows: *Reality*** (1900%), ***Crime*** (650%), ***Animation*** (580%)

- Netflix **expanded on niche genres differently across each content form.** They expanded to release more ***provocative*** movies, and ***an equal mix of real-life and imaginative*** shows on television

# Netflix Highest Growing Movie Genres from 2016-2021

**Horror**
2,800%

**Romance**
1,300%

**Action**
1,012%

**Family**
1,000%

**Adventure**
700%

Movie Count

Year of Date Added

# Netflix Highest Growing TV Genres from 2016-2021



Reality
1,900%

Crime
650%

Animation
580%

Sci-Fi & Fantasy
267%

Action & Adventure
40%

Show Count

Year of Date Added

# Ratings

Netflix Movie Ratings

- TV-Y7-FV: 4
- R: 790
- TV-PG: 529
- NR: 66
- TV-G: 122
- PG: 279
- PG-13: 487
- TV-MA: 2,013
- TV-14: 1,410
- NC-17: 3

Netflix TV Show Ratings

- TV-Y7: 191
- TV-Y: 171
- TV-G: 91
- TV-MA: 1,130
- TV-PG: 314
- TV-14: 722
- NR: 3
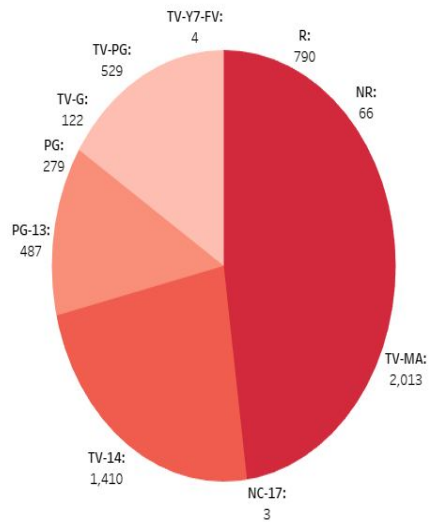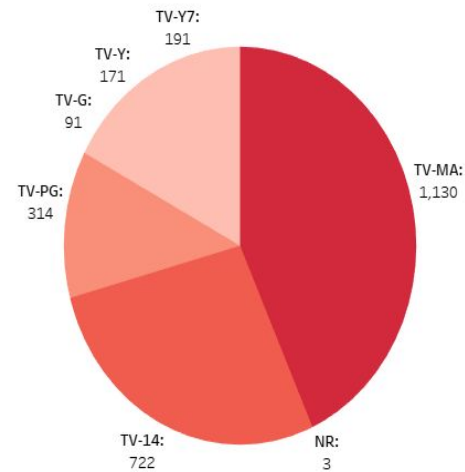
# Ratings

- According to Netflix's maturity rating guidelines, **roughly 45%** of their content is **recommended for adults** (rated R or TV-MA)

- What are the criteria that make up an "adult" movie?
  - **Keywords**: understand some of the most common words associated with adult content
  - **Genre**: understand the type of story that adult content is built on
  - **Descriptions:** understand common plot points that make up adult content

# Ratings: Movies

- For movies, these keywords suggest that ***extremity*** is a core theme that spans across multiple genres (e.g. suicide, robbery, infidelity, murder, etc.)

- The genres with the most adult content are ***Crime, Horror,*** & ***Thriller*** (at least 60% of these categories are rated R/TV-MA)



Netflix Most Common Adult Movie Keywords
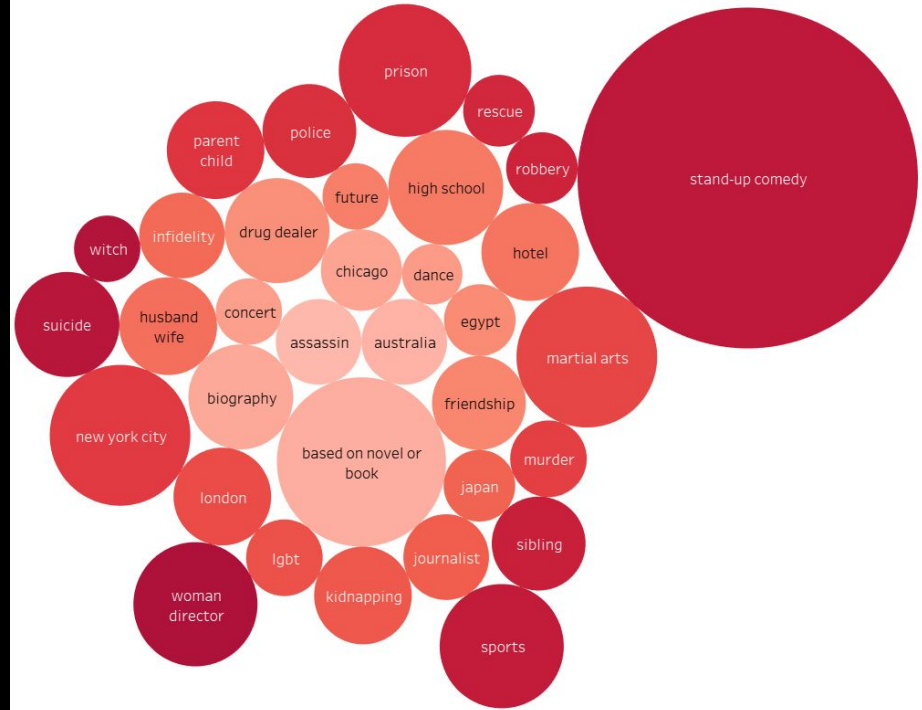
# Netflix % of Adult Rated Movies per Genre
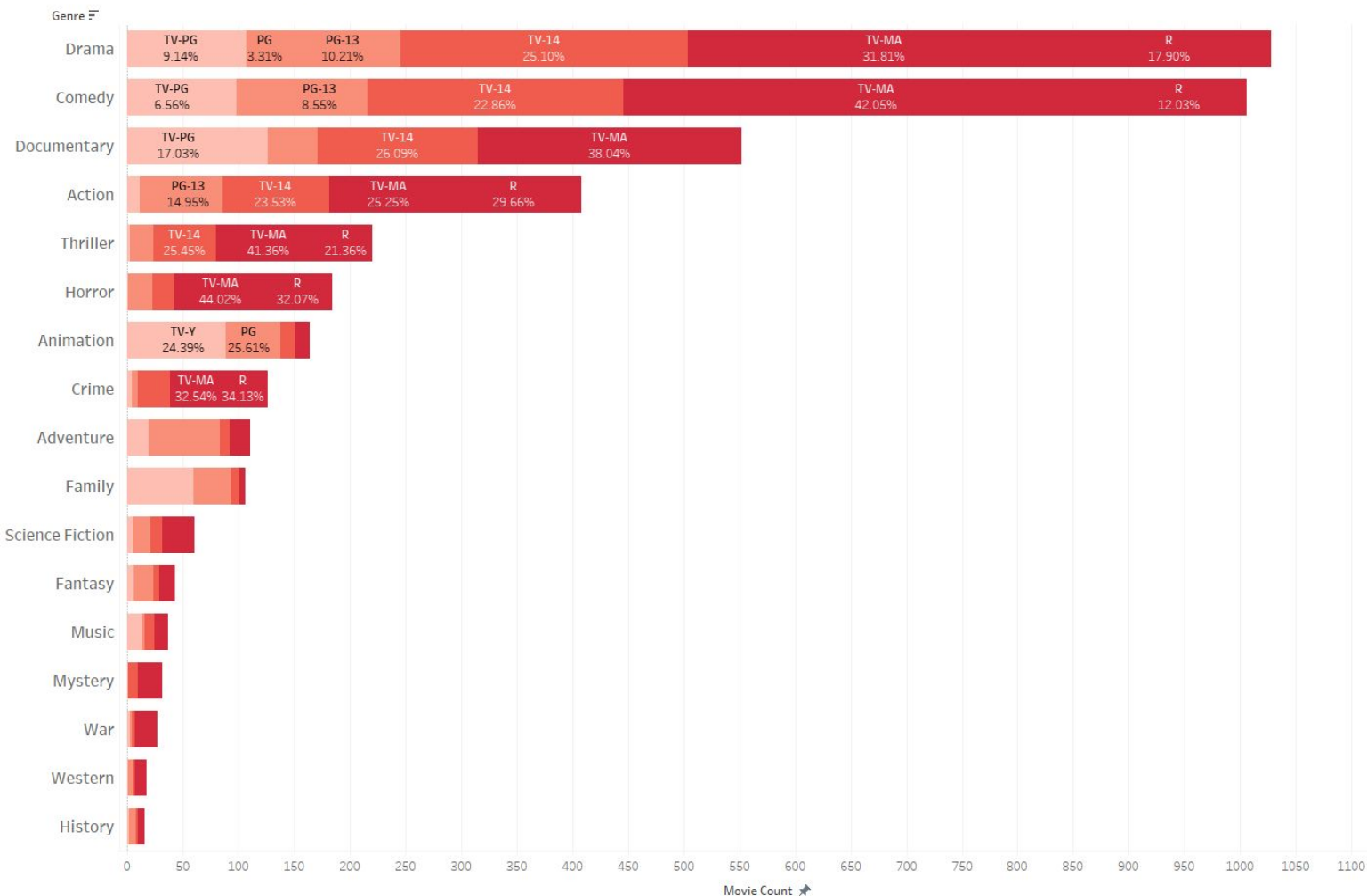
Genre

| Rating | |
|---|---|
| ■ | R |
| ■ | TV-MA |
| ■ | UR |
| ■ | NC-17 |
| ■ | NR |
| ■ | TV-14 |
| ■ | PG-13 |
| ■ | PG |
| ■ | G |
| ■ | TV-G |
| ■ | TV-PG |
| ■ | TV-Y |
| ■ | TV-Y7 |
| ■ | TV-Y7-FV |

**Drama**
- TV-PG 9.14%
- PG 3.31%
- PG-13 10.21%
- TV-14 25.10%
- TV-MA 31.81%
- R 17.90%

**Comedy**
- TV-PG 6.56%
- PG-13 8.55%
- TV-14 22.86%
- TV-MA 42.05%
- R 12.03%

**Documentary**
- TV-PG 17.03%
- TV-14 26.09%
- TV-MA 38.04%

**Action**
- PG-13 14.95%
- TV-14 23.53%
- TV-MA 25.25%
- R 29.66%

**Thriller**
- TV-14 25.45%
- TV-MA 41.36%
- R 21.36%

**Horror**
- TV-MA 44.02%
- R 32.07%

**Animation**
- TV-Y 24.39%
- PG 25.61%

**Crime**
- TV-MA 32.54%
- R 34.13%

**Adventure**

**Family**

**Science Fiction**

**Fantasy**

**Music**

**Mystery**

**War**

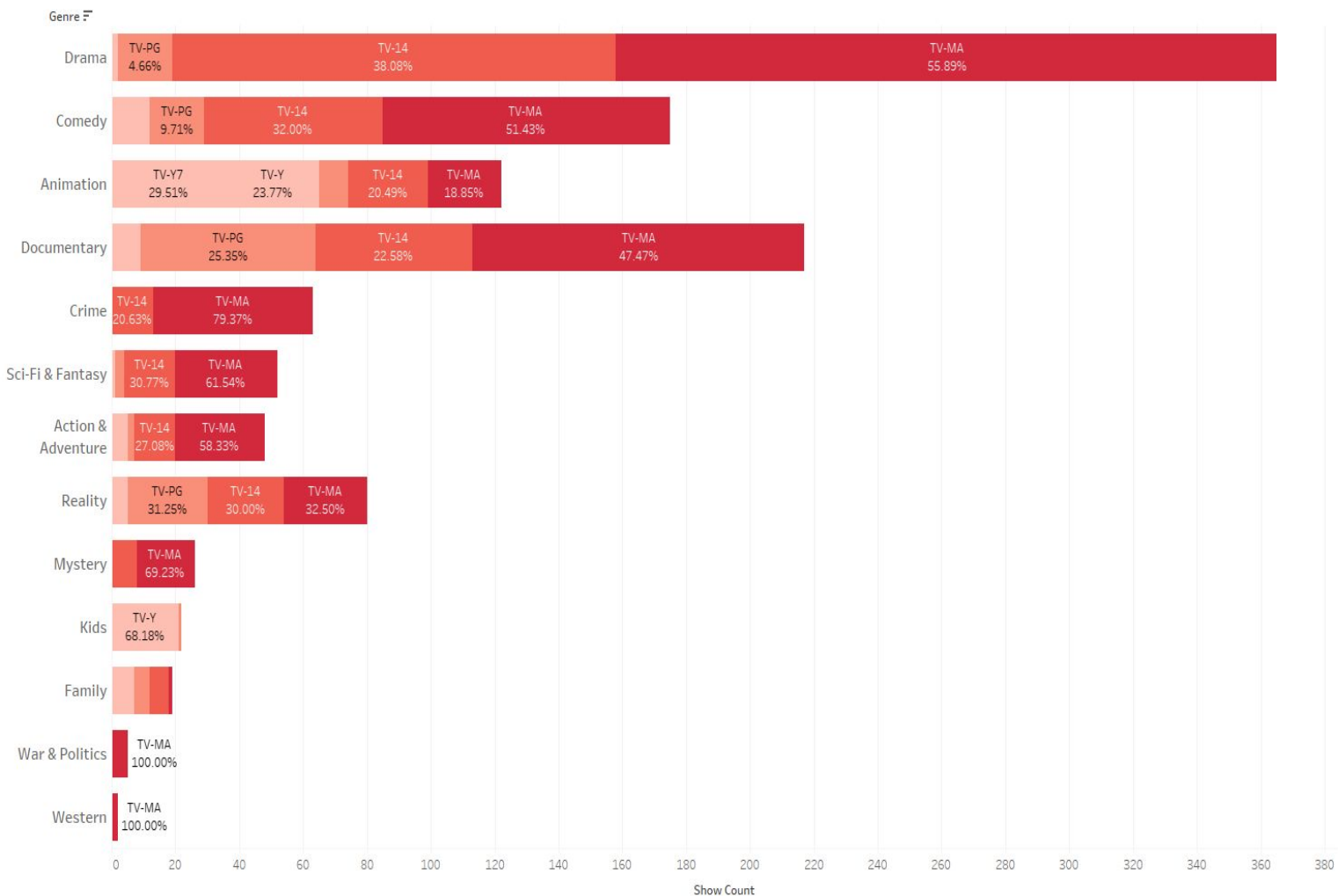**Western**

**History**

Movie Count

# Ratings: Shows

- With TV, ***character-oriented descriptions*** are more common (e.g. family, group, etc.), but language is still centered around ***suspense***

- The genres with the most adult shows are ***Crime, Sci-Fi,*** and ***Mystery*** (at least 60% of these categories are rated R/TV-MA)
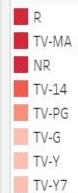


Netflix Adult TV Descriptions

# Netflix % of Adult Rated TV per Genre

Genre

**Rating**
- R
- TV-MA
- NR
- TV-14
- TV-PG
- TV-G
- TV-Y
- TV-Y7

| Genre | Segments |
|-------|----------|
| Drama | TV-PG 4.66% / TV-14 38.08% / TV-MA 55.89% |
| Comedy | TV-PG 9.71% / TV-14 32.00% / TV-MA 51.43% |
| Animation | TV-Y7 29.51% / TV-Y 23.77% / TV-14 20.49% / TV-MA 18.85% |
| Documentary | TV-PG 25.35% / TV-14 22.58% / TV-MA 47.47% |
| Crime | TV-14 20.63% / TV-MA 79.37% |
| Sci-Fi & Fantasy | TV-14 30.77% / TV-MA 61.54% |
| Action & Adventure | TV-14 27.08% / TV-MA 58.33% |
| Reality | TV-PG 31.25% / TV-14 30.00% / TV-MA 32.50% |
| Mystery | TV-MA 69.23% |
| Kids | TV-Y 68.18% |
| Family | |
| War & Politics | TV-MA 100.00% |
| Western | TV-MA 100.00% |

Show Count

# Keywords

# Keywords

- The most common keywords in Netflix's content include: *stand-up comedy, woman director, based on novel or book, murder,* or *based on a true story*

- Based on the plot, these words are strongly ***associated with popular movies***



Popularity of Netflix Keywords in Movies
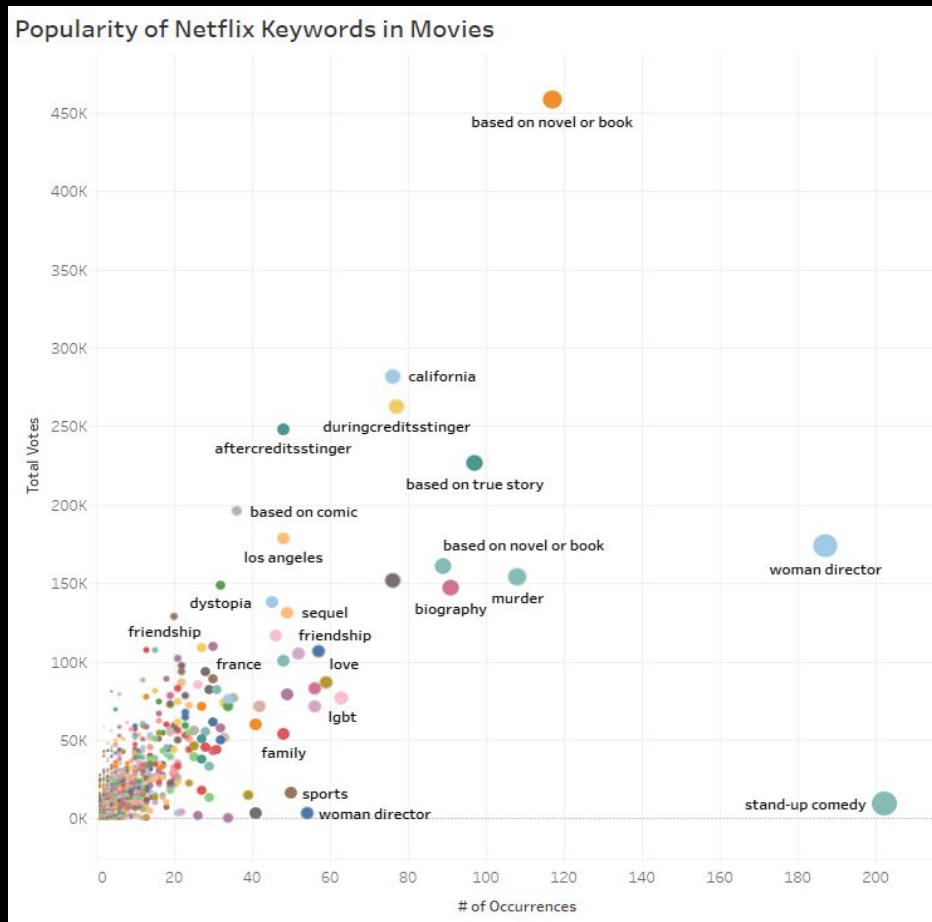
# Observations

- **Provoke, Provoke, Provoke:** content that incites strong emotions across multiple genres (typically through Drama, Comedy, or Horror)

- **Mass Appeal:** audience is paramount; tell stories that anyone in the world can understand--from competition, love, or food

- **Build Movie & TV Niches Separately:** each content form is built on a specific set of genres (that is unique to Netflix)--movies have a generally provocative theme, while television is a mix of reality shows and animation

# The Netflix Difference

**Provocative themes across all genres**

**Stories with a mass appeal**

**Strong expansions with original content in both movies & television**

# Appendix

- Data sources used:
  - **Netflix:** https://www.kaggle.com/datasets/shivamb/netflix-shows
  - **TMDB Movies:** https://www.kaggle.com/datasets/asaniczka/tmdb-movies-dataset-2023-930k-movies/data
  - **TMDB TV Shows:** https://www.kaggle.com/datasets/asaniczka/full-tmdb-tv-shows-dataset-2023-150k-shows
- **Icons**: https://thenounproject.com/