Microsoft Movie Studio Recommendations

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Outline

- Business Context
  - Financial Efficiency
  - Online Engagement

- Data and Methods
  - 3 Movie Data Sets

- Recommendations
  - Which genre?
  - When to release?
  - How long?

- Future Work

Main Takeaway

Making an **animated** film will typically give **50%** lift to your **ROI**.

Business Context

What types of films should the studio create?

Assumptions:

- Financial efficiency matters.

  ROI > Gross Earnings

$$ROI = \frac{\text{Gross Earnings - Production Budget}}{\text{Production Budget}}$$

- Community engagement matters.

  Having an opinion **> Content** of opinion
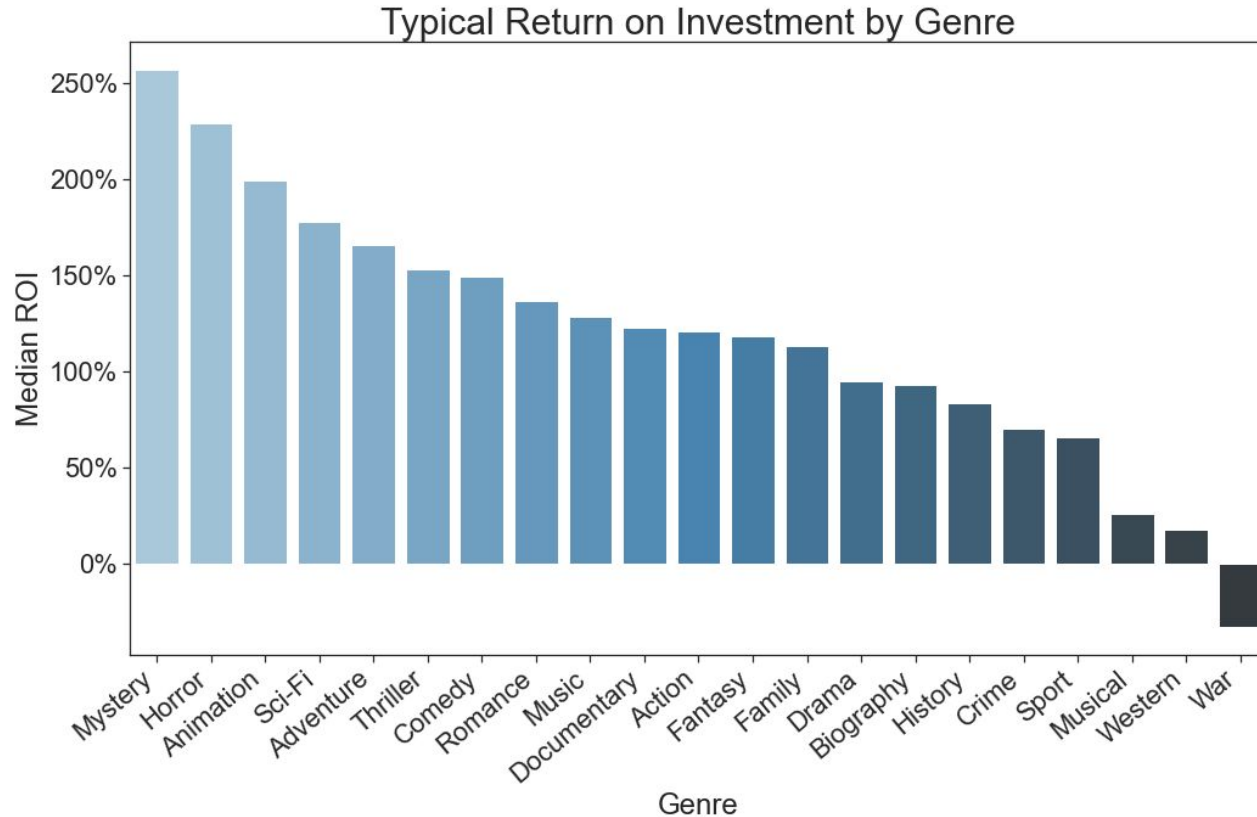
Data and Methods

Data and Methods

- IMDb -- 70,000+ films
  - Genre
  - Runtime
  - Online Votes

- The Numbers -- 5,500+ films
  - Release Date
  - Gross Earnings
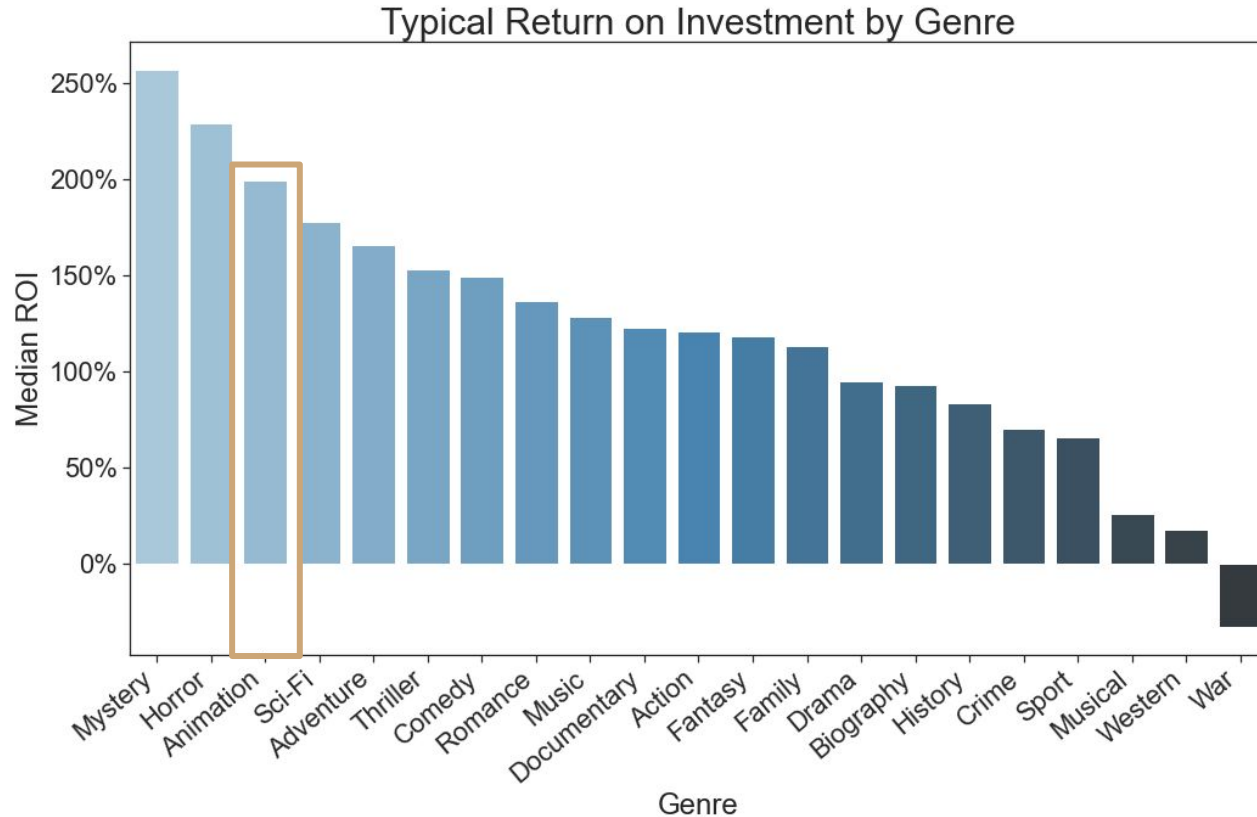 - Production Budget
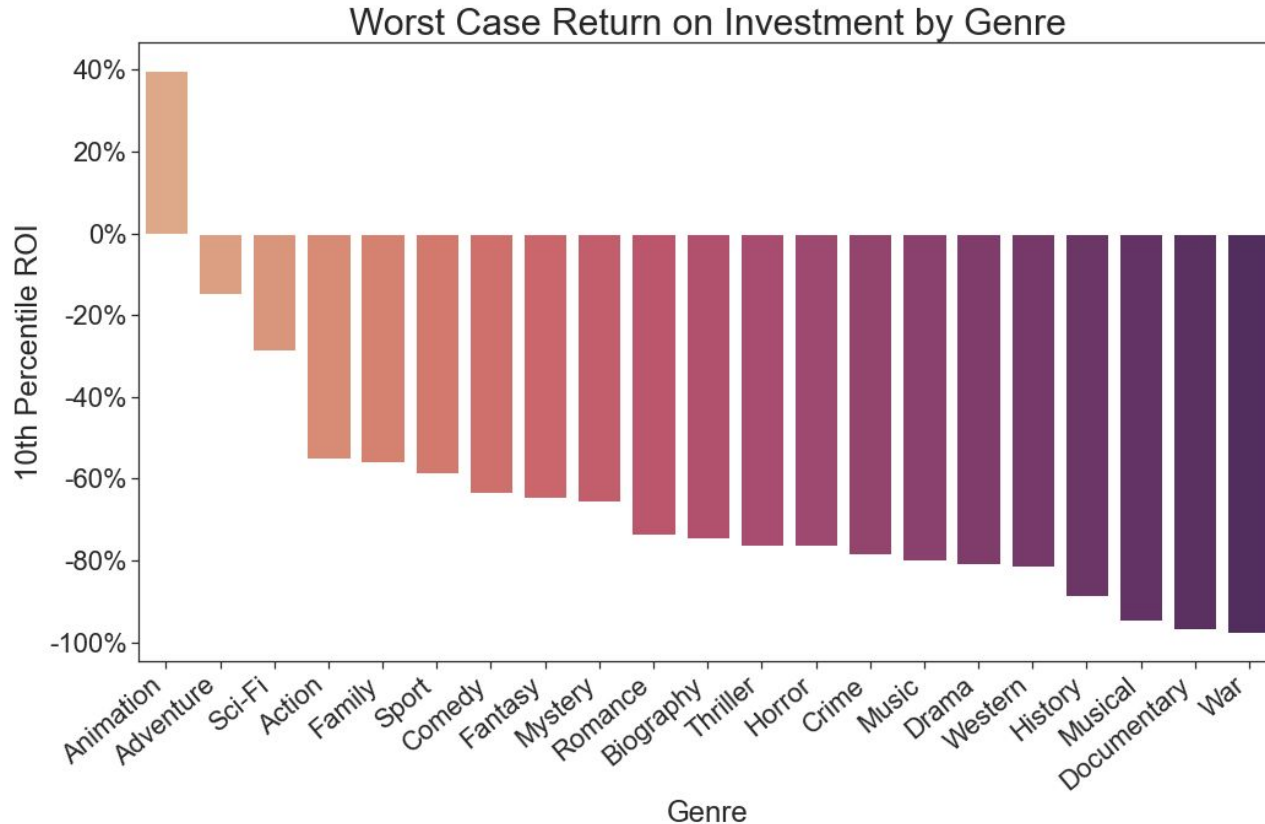
- Skewed data -- median > mean

Recommendations

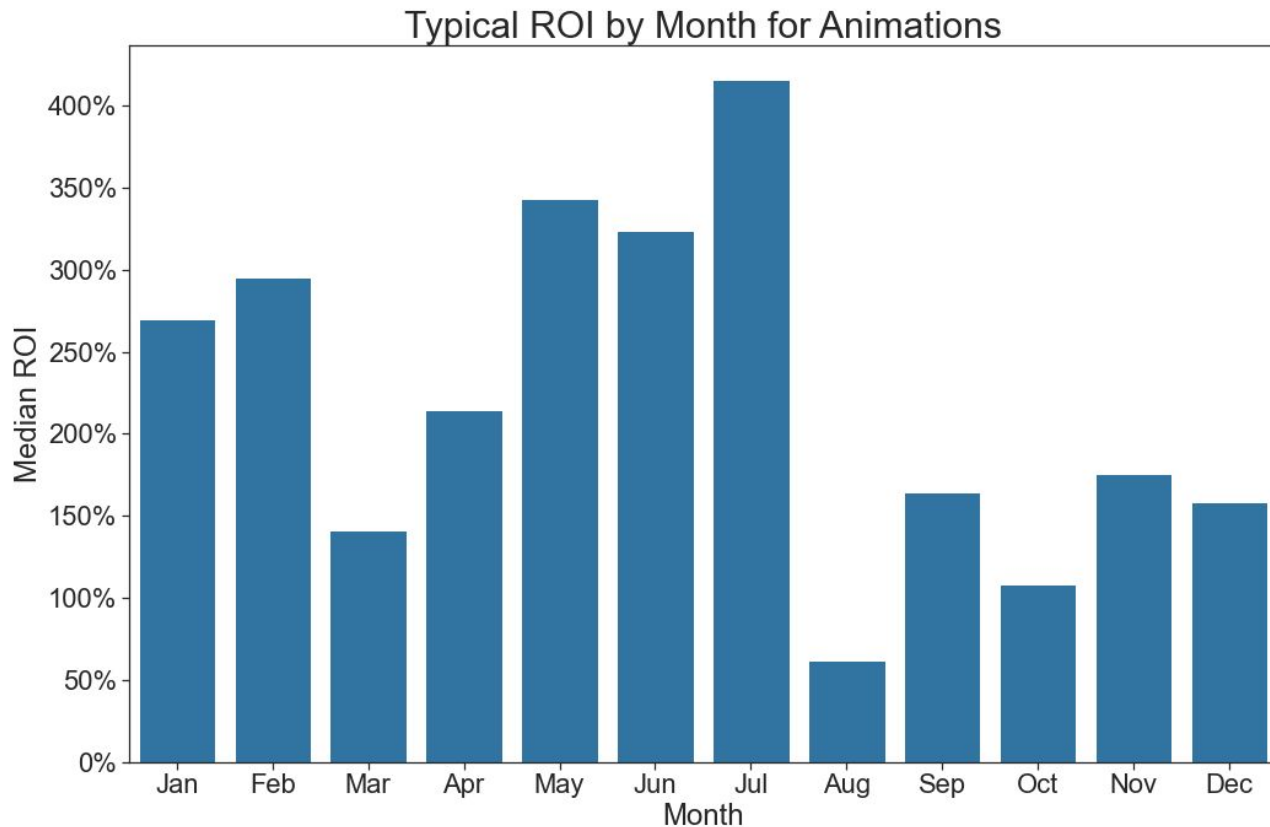# Make an animation to increase ROI by 50%

Typical Return on Investment by Genre

Make an animation to increase ROI by 50%

Typical Return on Investment by Genre

Animations – still profitable!

Worst Case Return on Investment by Genre

Summer month releases lift ROI by 80%

Typical ROI by Month for Animations

Summer month releases lift ROI by 80%

Typical ROI by Month for Animations
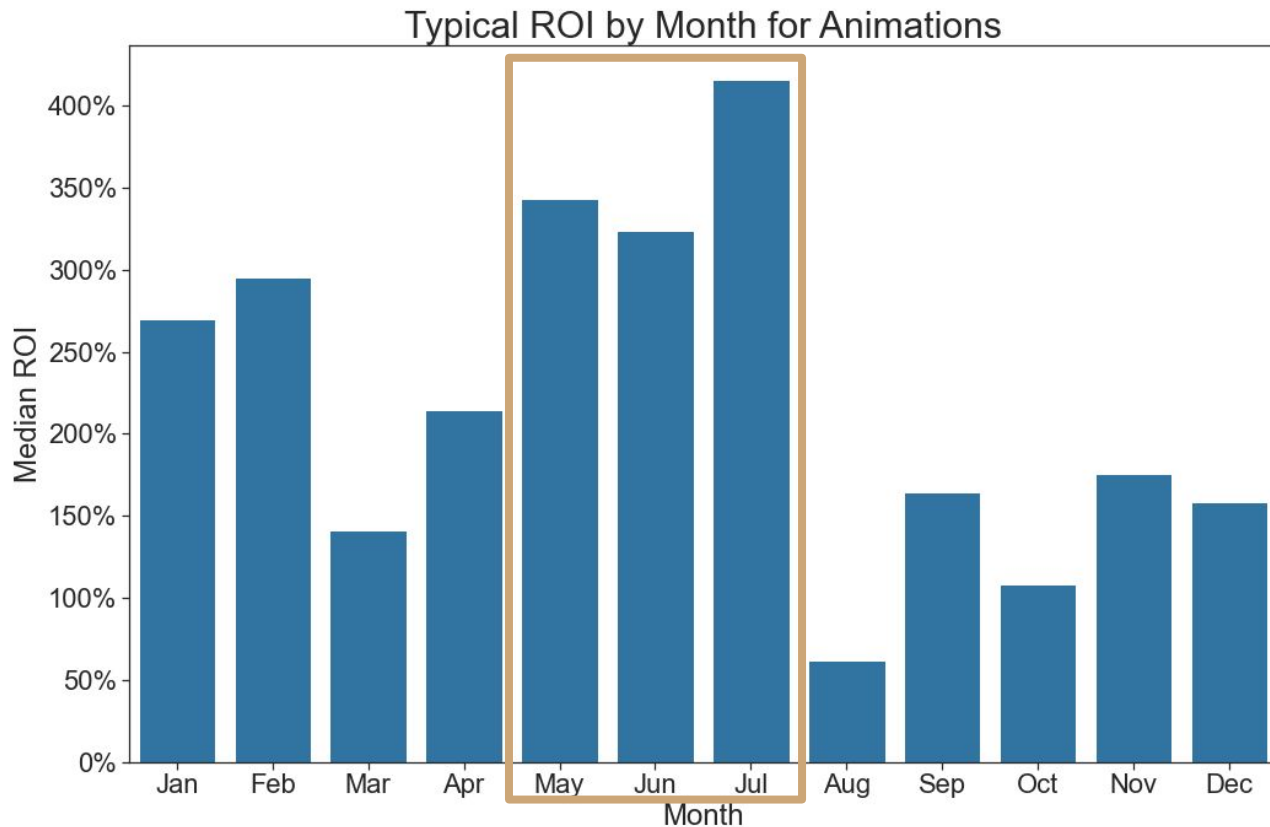
Make an animation 100 minutes long for 6.5x reach

Typical Number of Votes by Runtime for Animations
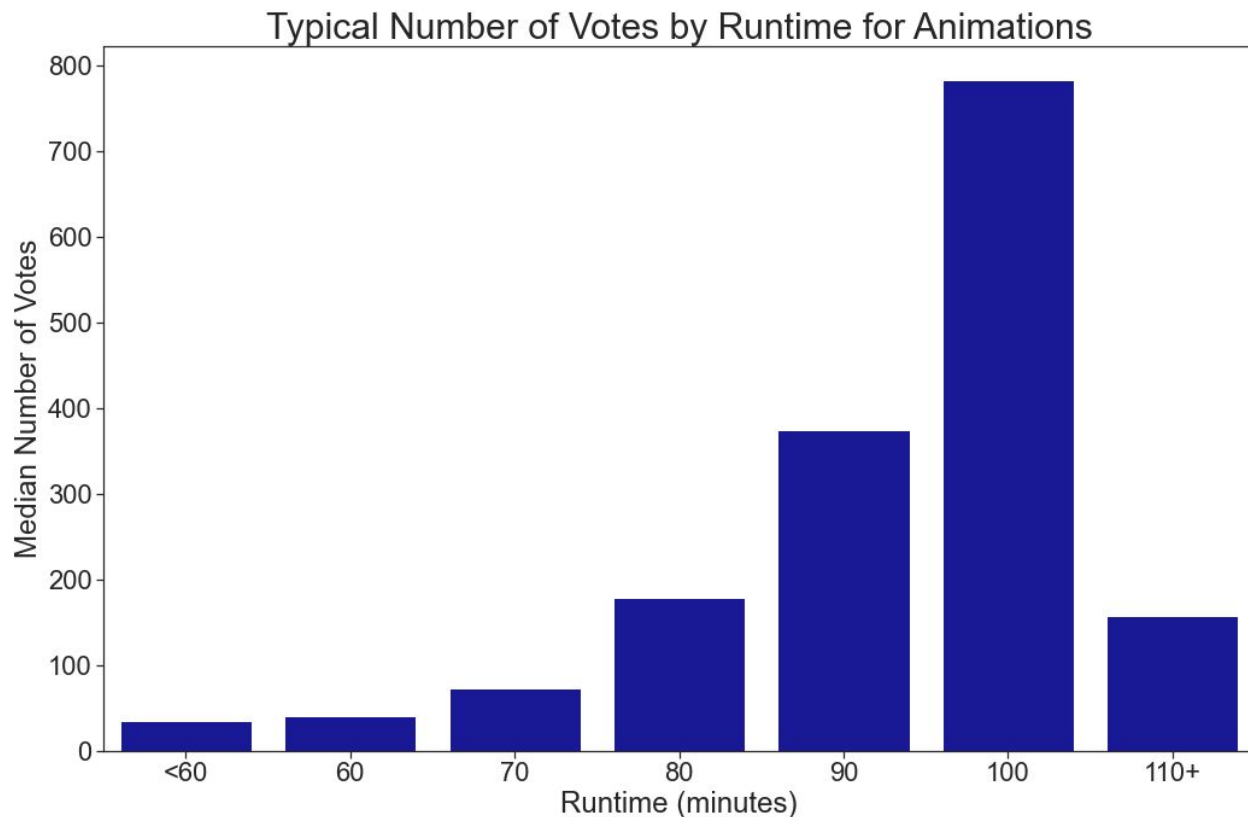
Recommendations

- Making an **animated** film will typically give a **50%** increase to your **ROI**.

- Releasing a film in the early **summer** lifts **ROI** by **80%.**

- Making an animated film ~**100 minute** long increases your engagement online by **6.5x**.
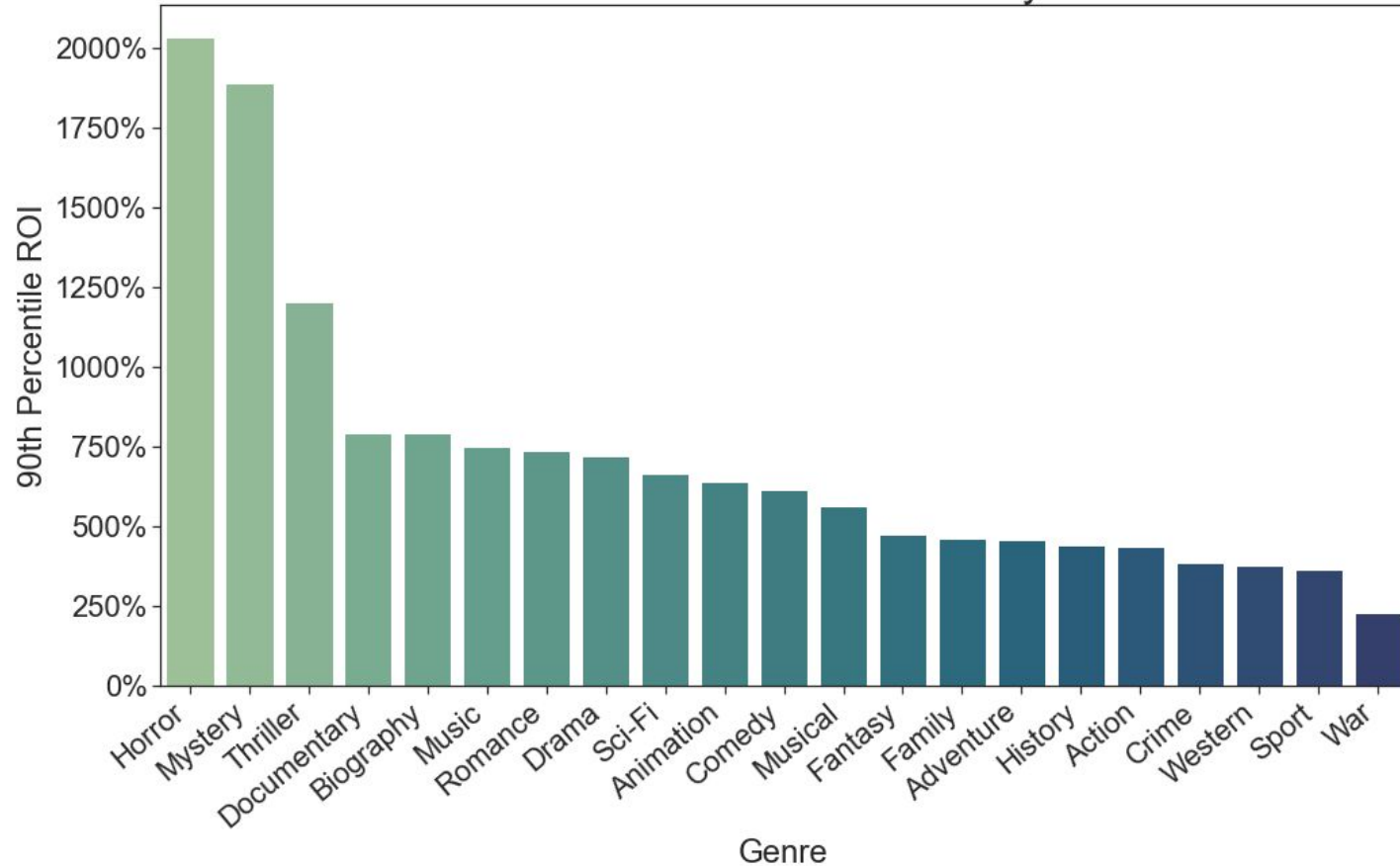
Future Work

Future Work

- What are the salient features and sub-genres of the best-performing animations?

- Who should you hire to work on an animation?

- Are there other data sources with worthwhile information to integrate with this analysis?

Questions?

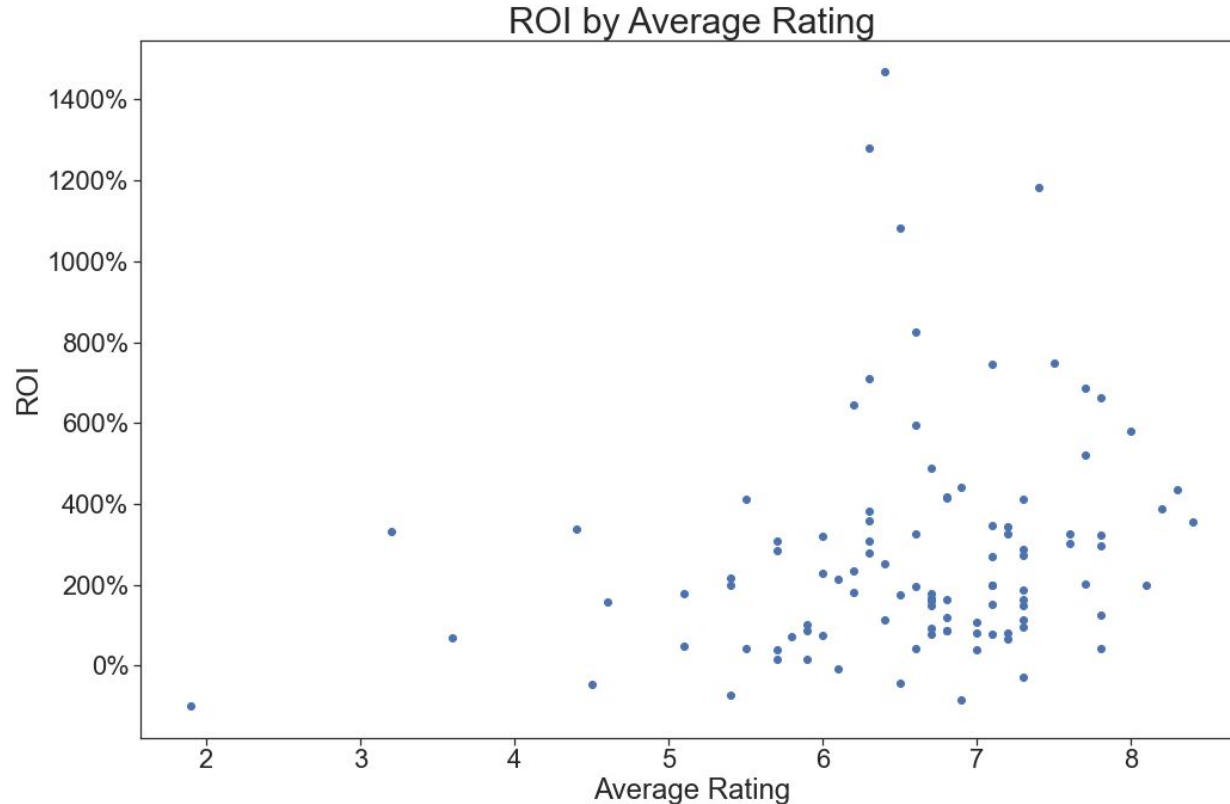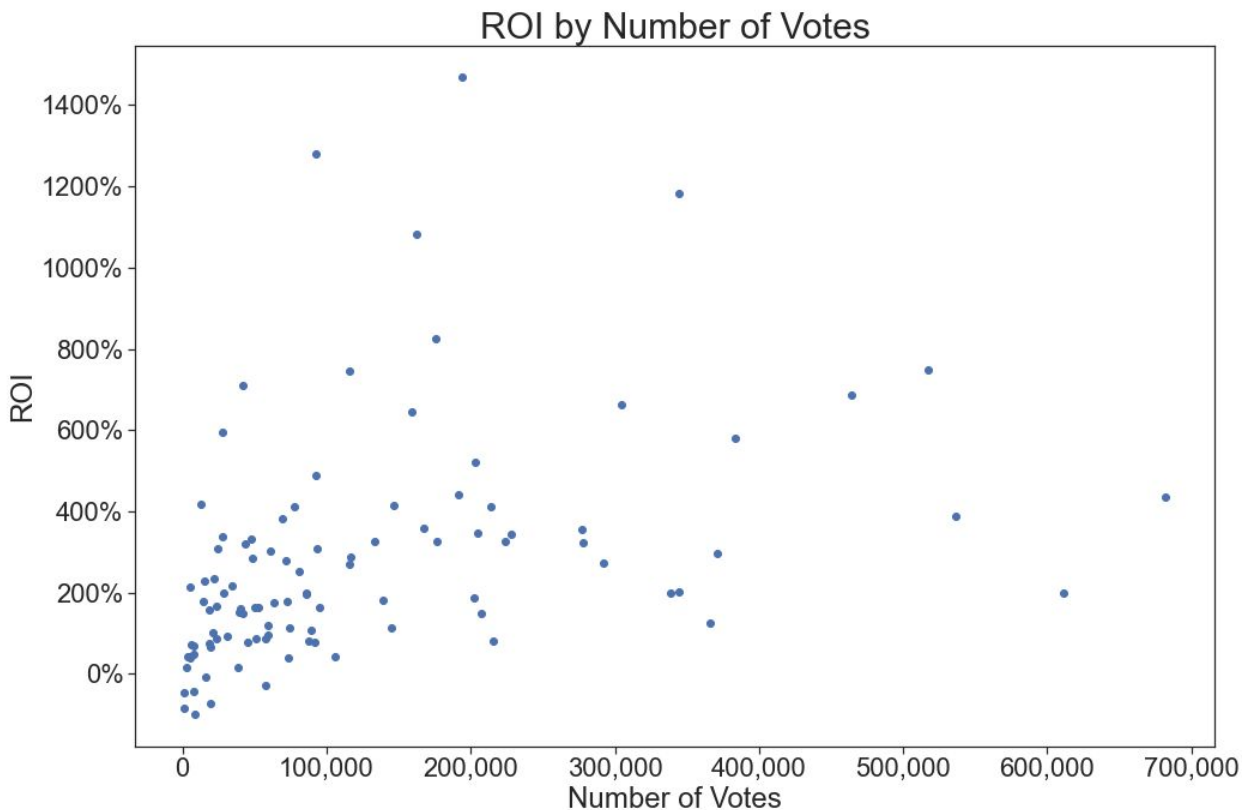https://github.com/austint1121/VenusMovieAnalysis

Appendix

Best Case Return on Investment by Genre

Animations: ROI - Average Rating Correlation = 0.21

ROI by Average Rating

Animations: ROI - Number of Votes Correlation = 0.39

ROI by Number of Votes

Animations: Number of Votes Histogram

Distribution of Number of Votes

Best Case Number of Votes by Runtime for Animations

Worst Case Number of Votes by Runtime for Animations