



INTRODUCTION

Does a director's gender influence a movie's success?

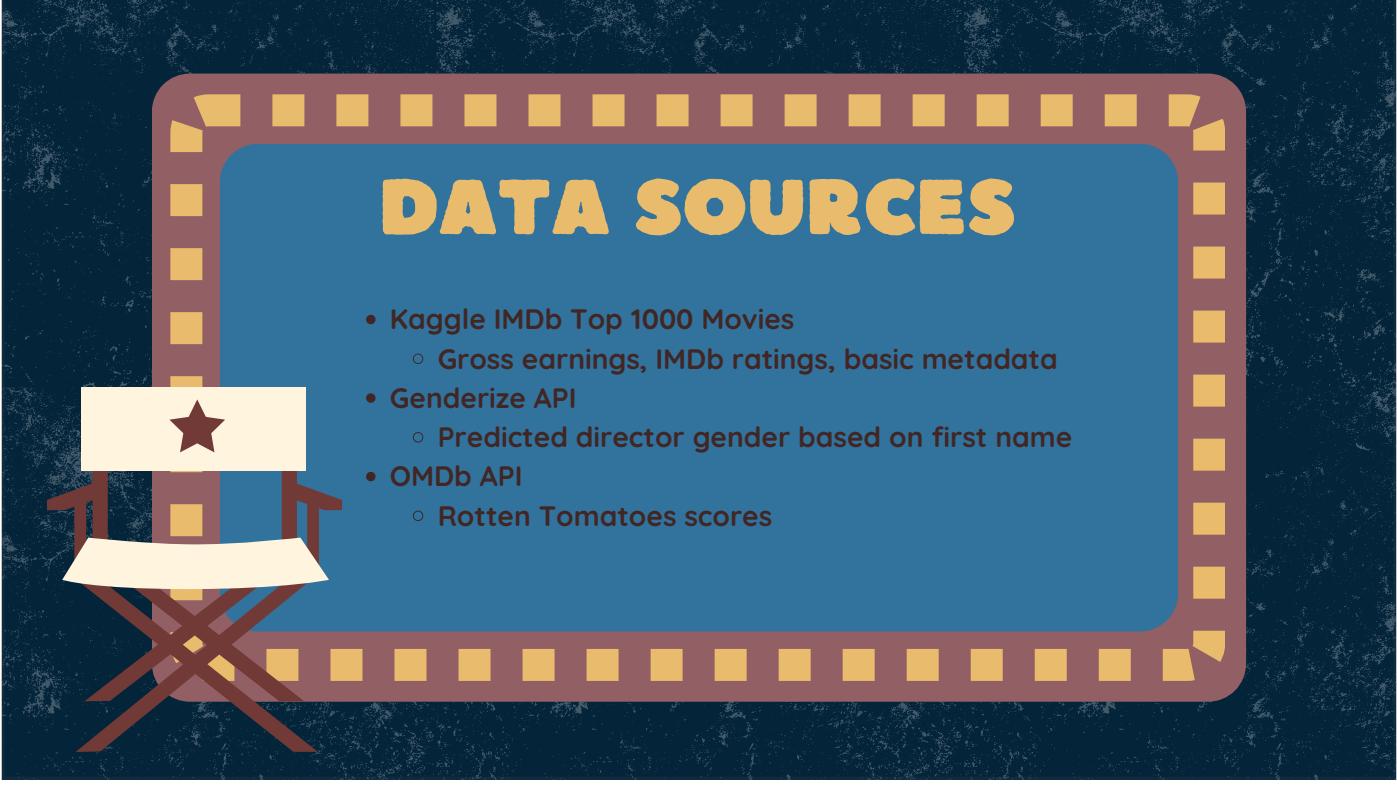
Three Factors:

- Box Office Gross
- IMDB Score
- Rotten Tomatoes Score

Hi, my name is Katelynn Youssefye and today I will be presenting my project, Gender in Film –but more specifically I will be taking a look at whether the gender of the director has any measurable impact on the movies success.

SLIDE 2 - Introduction

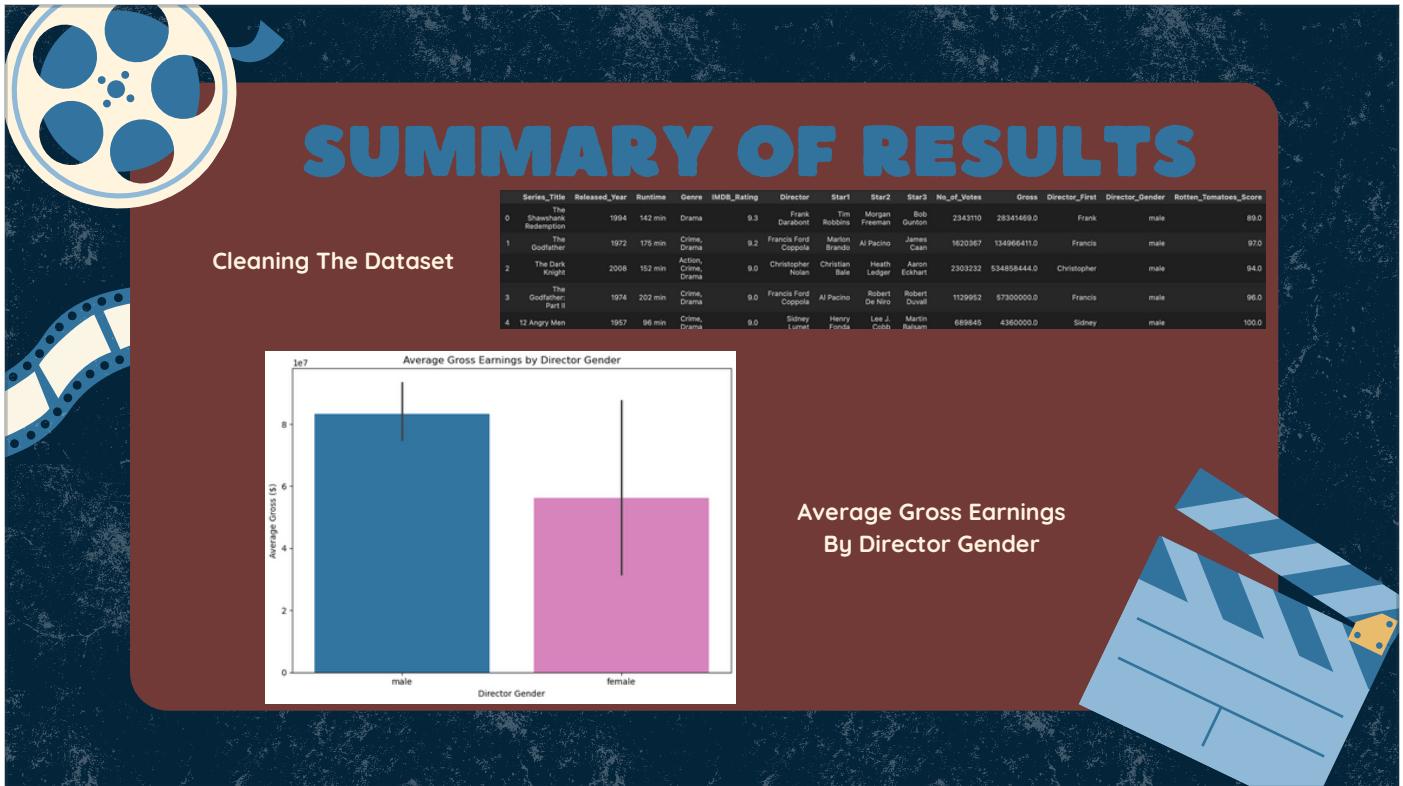
To answer this, I looked at three variables: the box office gross, the IMDB audience score, and the Rotten Tomatoes critic score. This gave me a mix of financial and qualitative feedback across both public and professional audiences.



DATA SOURCES

- Kaggle IMDb Top 1000 Movies
 - Gross earnings, IMDb ratings, basic metadata
- Genderize API
 - Predicted director gender based on first name
- OMDB API
 - Rotten Tomatoes scores

My project consisted of three data sources: first, a kaggle data set of the top 1000 movies on IMDB – which gave me basic metadata such as title, director name, gross amount, and IMDb score. Second, I used the genderize API to predict the gender of each director based on their first name. Lastly, I used the OMDB API to fetch rotten tomato scores for each movie.

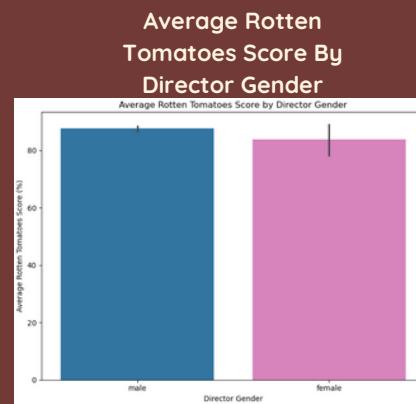
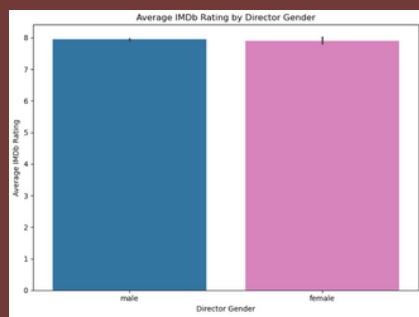


SLIDE 4 - (1) Cleaning & Avg Gross by Gender

Before conducting any analysis I first had to clean the kaggle dataset to remove any rows that were missing key values, especially for rotten tomato scores because not every movie had one available. I also removed unnecessary columns, extracted first names from the director data, and then made sure every movie had a clear director gender (male or female) so that I could compare the two groups consistently. Also, I realized that calling the APIS would hit the limit so I used pythons pickle module to save the results after the first successful call—that way I didn't have to call the API each time, it would just load the saved data.

We can see that on average, movies directed by men earned more at the box office than those directed by women. However – male directed movies outnumbered female directed ones – so this could also be due to the fact that higher budget projects typically go to male directors.

SUMMARY OF RESULTS

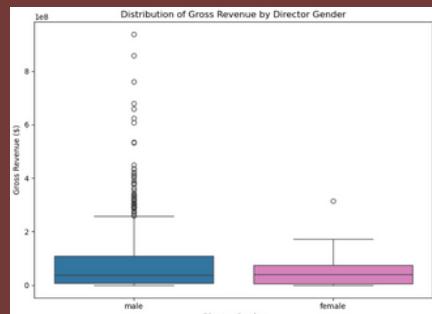


SLIDE 5 - (2) Avg IMDB & RT

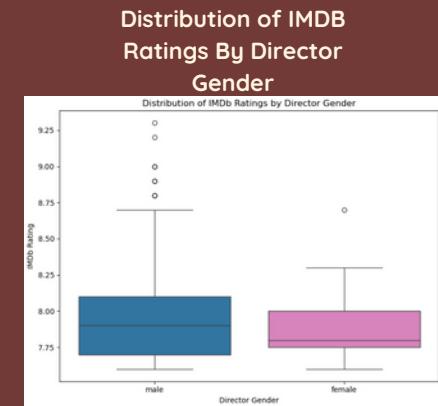
Interestingly, when it comes to IMDB ratings, female directed movies performed about the same as male directed ones, and sometimes slightly better. This shows that even with less representation, female directed films resonate with viewers

We can see that rotten tomatoes scores followed a similar pattern – that female directed films were rated just as highly than male directed films by critics. So when it comes to the quality of a film, there doesn't seem to be much of a difference

SUMMARY OF RESULTS



Distribution of Gross Earnings By Director Gender



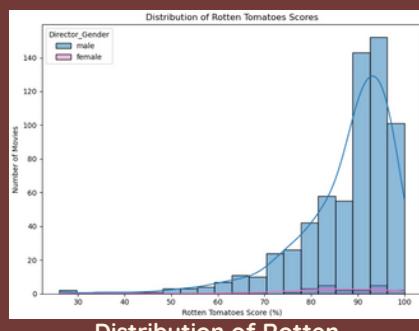
Distribution of IMDB Ratings By Director Gender

SLIDE 6 - Distributions

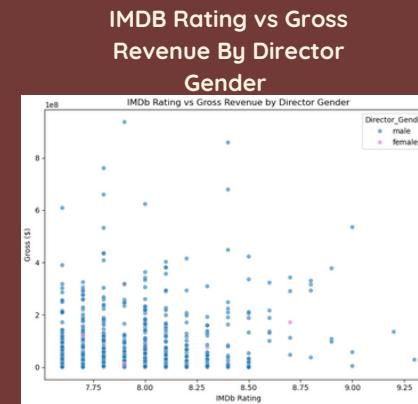
I also looked at the distribution of these scores to see the spread and outliers. You can see that male directed movies had more high grossing outliers—which makes sense given male directors having larger presence in films. But the rating distribution for both IMDB and rotten tomatoes were pretty evenly spread between genders, with no major difference in variability.

(Rotten Tomatoes distribution on next slide)

SUMMARY OF RESULTS



Distribution of Rotten
Tomatoes Score By
Director Gender



SLIDE 7 - Scatter

Lastly, I plotted the IMDB score against gross revenue by gender. It shows that while male-directed movies tend to cluster higher on the gross scale—there are strong female directed films that also did well. Overall this plot highlights both the performance similarities and opportunity gap.

In summary, female directed movies perform just as well as male directed ones—they just get fewer chances. The issue isn't quality, it's opportunity.



THANK YOU!