

# **MICROSOFT'S NEW MOVIE STUDIO**

Dorine Langat

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# Overview

- Microsoft has learnt that other big companies are creating video content and they want in on the fun.
- Exploring the performance of different types of films at box office to better understand which types of films are currently doing best.
- With the film data, we can get some insights about the film type that will help in decision making to make sure Microsoft ventures successfully into the film industry.

# Data Exploration

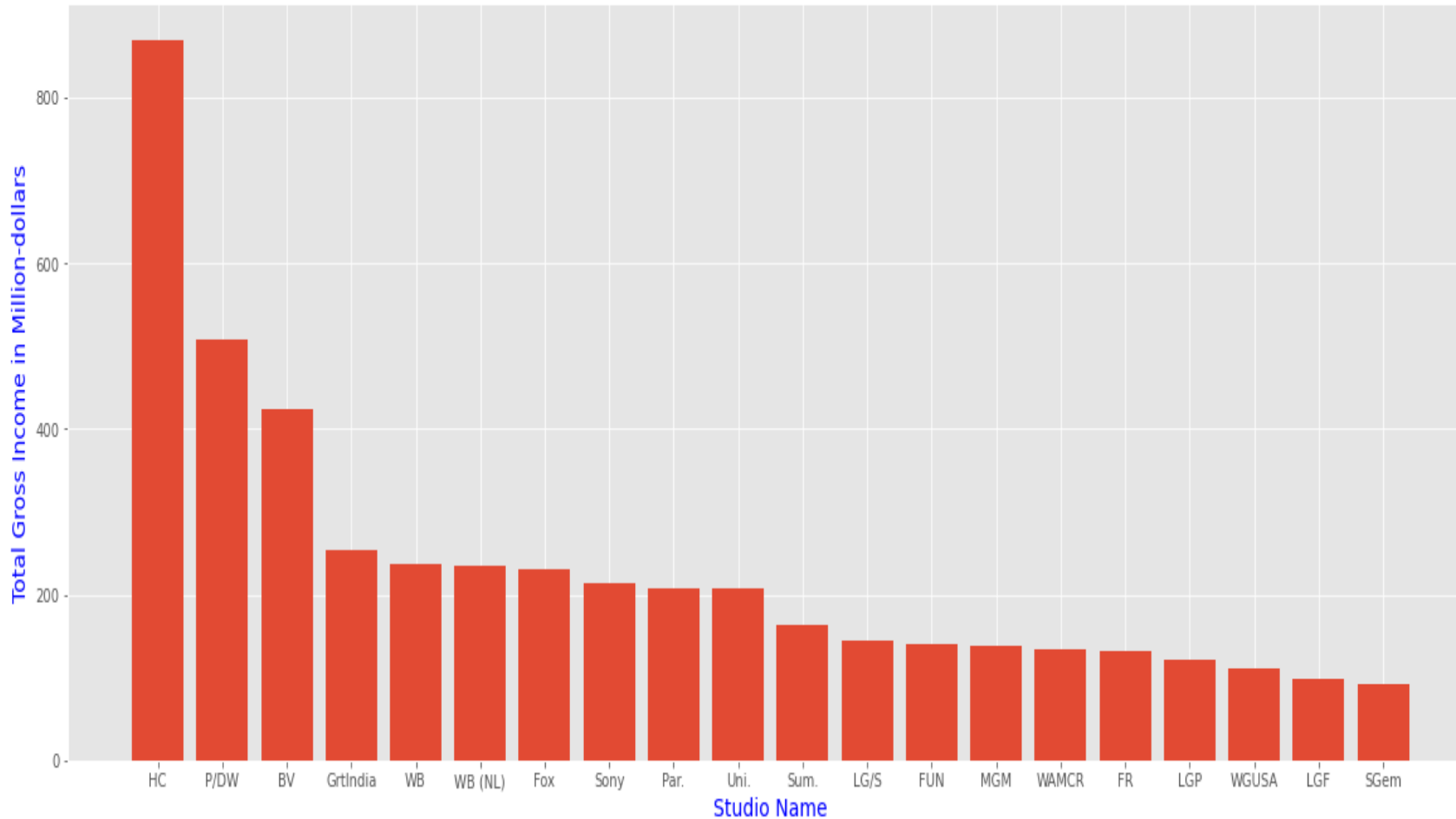
- Four different datasets were used to arrive at the conclusions of this exploratory data analysis.
  1. A box office dataset containing film titles, studio of production, and gross revenue.
  2. A dataset from The Movie Database containing films' original languages, and their popularity.
  3. A movie budgets dataset containing the production budgets and worldwide gross revenue.
  4. A dataset from rotten tomatoes top movies containing critic score, people score, box office gross, film genre, and runtime.

# Objectives

- To find out:
  1. The studio that makes the highest total gross revenue in box office.
  2. The correlation between the production budget and total gross revenue.
  3. The effect of a film's original language on its popularity.
  4. How the runtime of a film has changed over the years.
  5. The correlation between critic score and people score.
  6. The top ten most profitable genres.

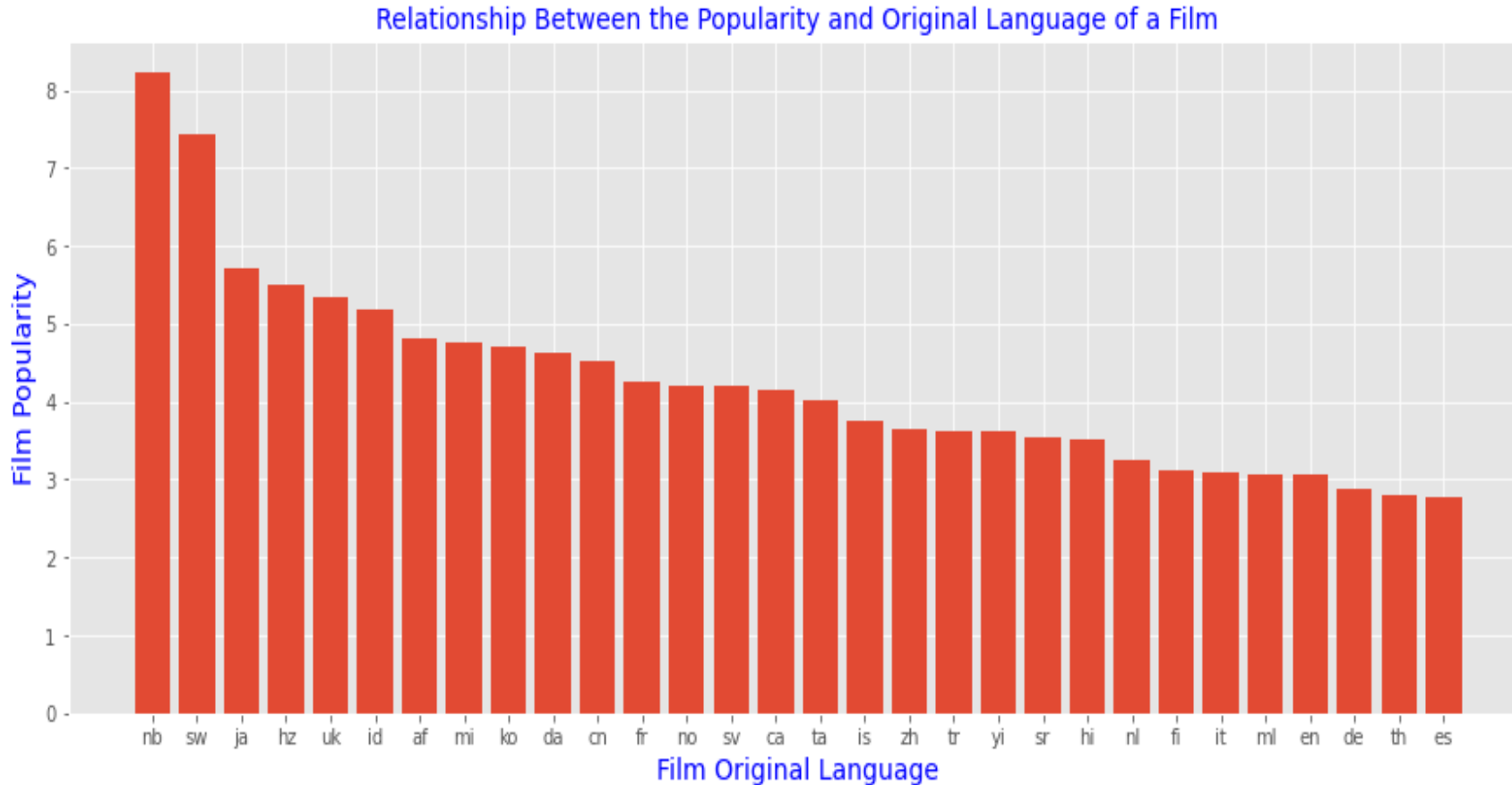
# Production Studio vs. Total Gross revenue

Relationship Between the Production Studio and the Total Revenue made



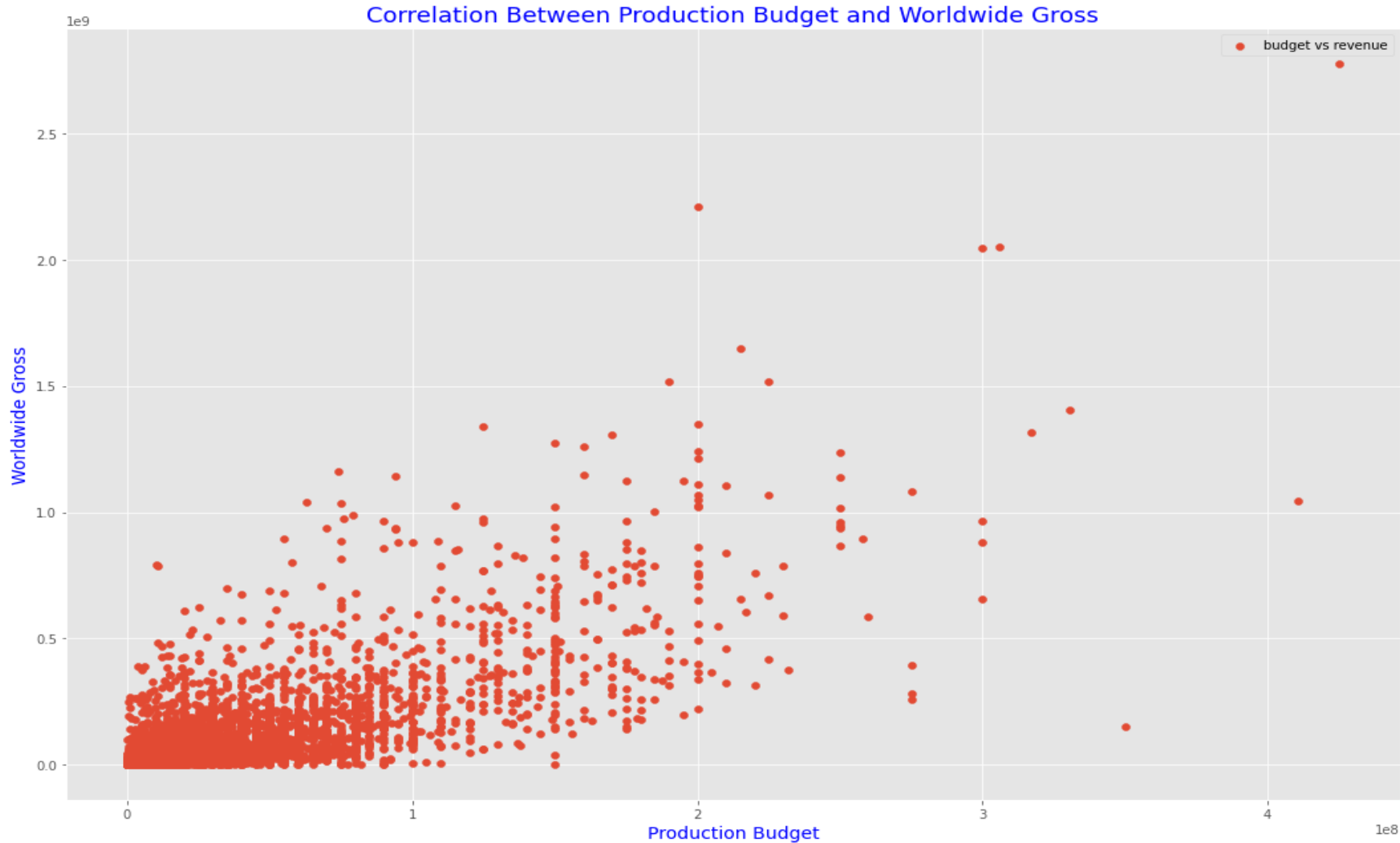
- Top 20 studios and their corresponding total gross from 2010 to 2018 per film produced.
- The top 5 studios are HC, P/DW, BV, GrtIndia, and WB.

# Film Popularity vs. Original Language



- Top 30 languages for which films were originally produced and their popularity.
- Despite English, French, and Spanish having the highest number of movies produced, they don't seem to appear as the most popular films.

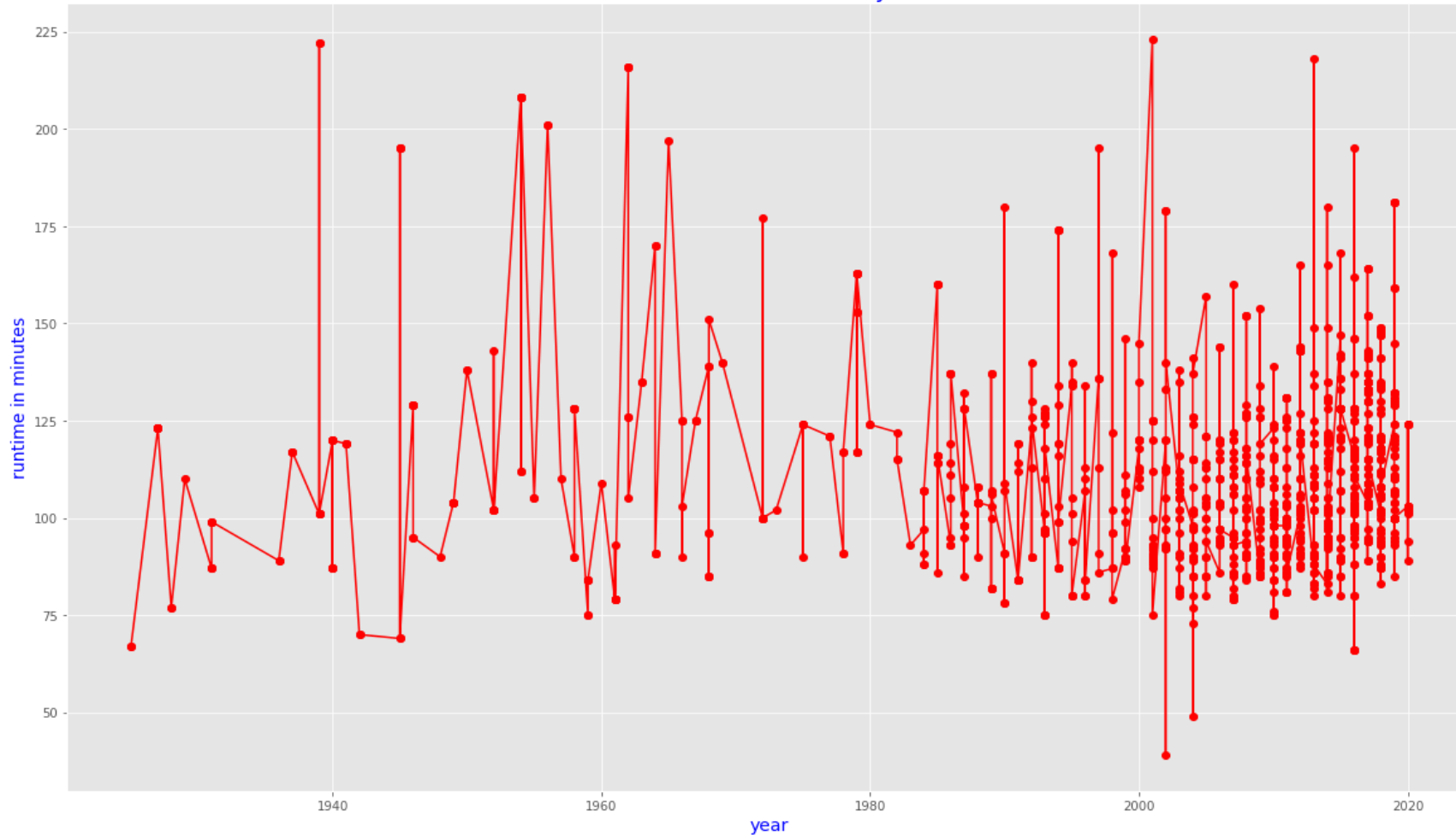
# Production Budget vs. Worldwide Gross



- Comparison between over 5782 entries of films' production budgets and their corresponding worldwide gross.
- The correlation between the production budget and the worldwide gross revenue is positive; with a calculated value of 0.748

# Runtime Trend

Runtime Trend over the years

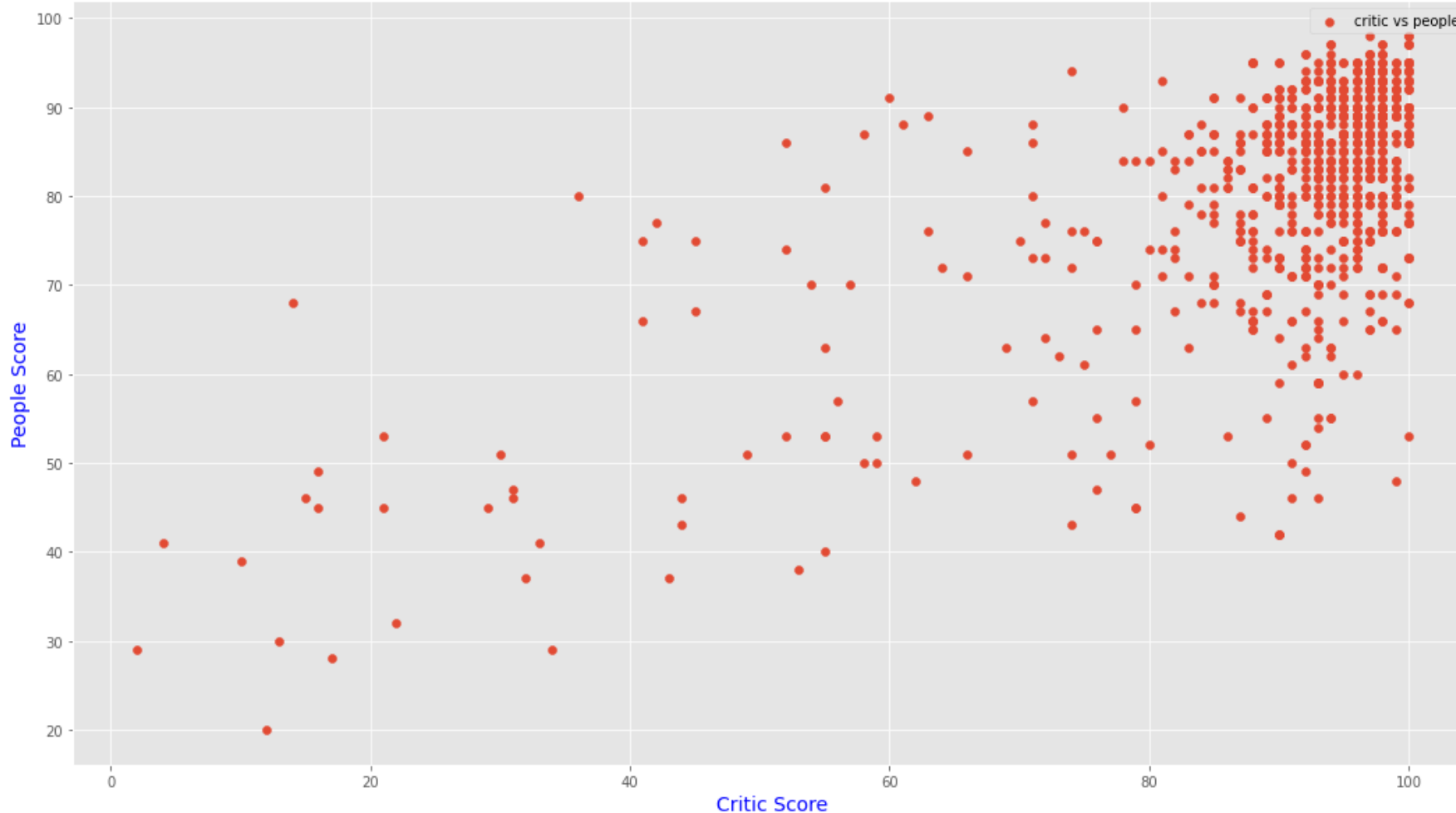


- Runtime in minutes from 1930 to 2020.
- There is no significant difference in runtime over the years, since most films range between 75 and 150 minutes.
- There has been an increase in the production of films in the recent past, from 1982.



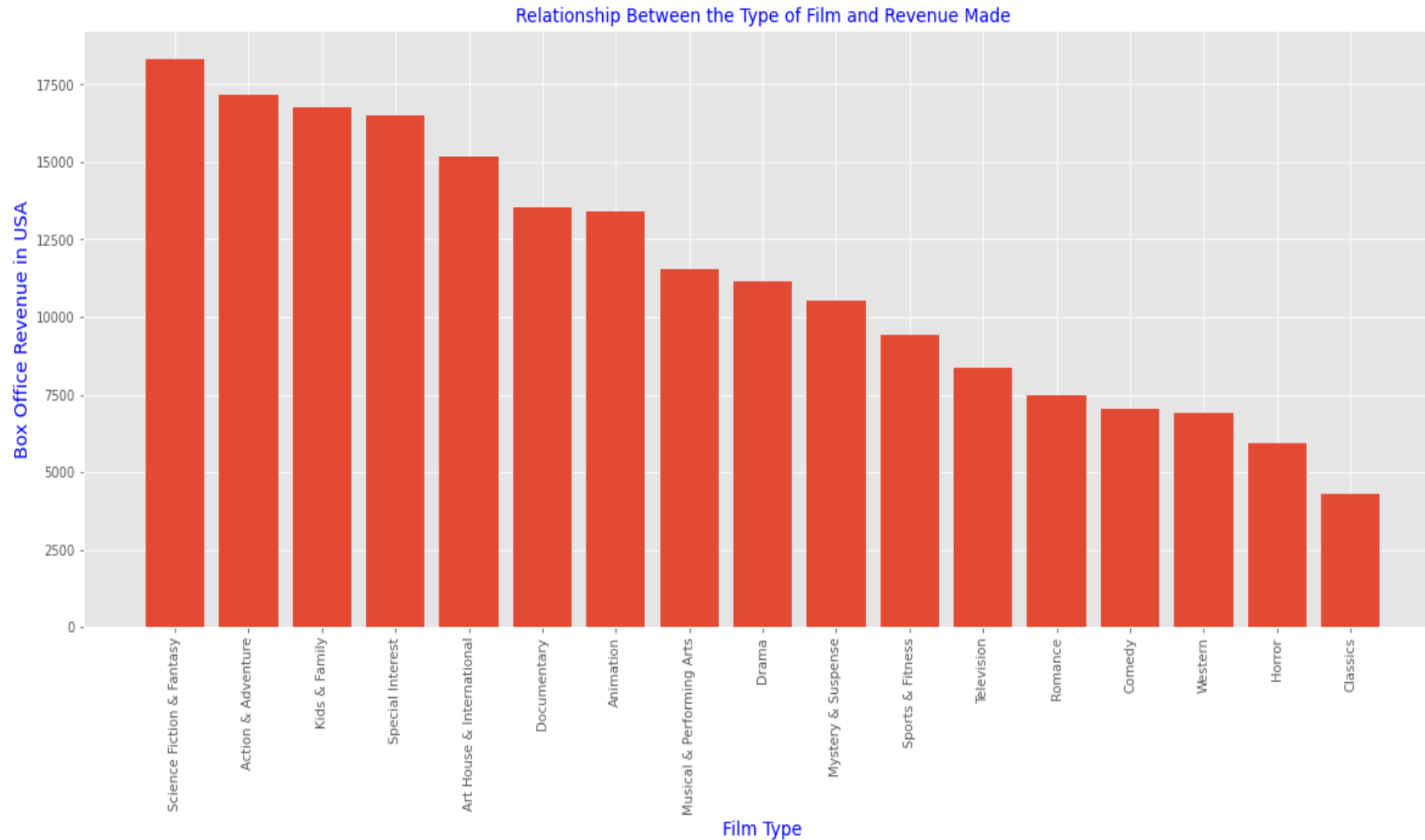
# Critic Score vs. People Score

Correlation Between Critic Score and People Score



- The correlation between critic score and people score is positive, of about 0.625
- The measure used by critics to rate a film is almost similar to that of the people.

# Film Type vs. Box Office Revenue



- The 17 categories of film types and the total box office revenue in USA per film type.
- The top 3 most profitable film types include Science Fiction & Fantasy, Action & Adventure, and Kids & family.

# Conclusion

- The original language for which a film is produced does not affect its popularity.
- The production budget of a film has a positive correlation with the worldwide gross.
- The range of film runtime is between 75 to 150 minutes.
- The correlation between critics and people's score is positive.
- The top most profitable genres in box office USA include Science Fiction & Fantasy, Action & Adventure, and Kids & Family.
- The limitation to this analysis is that some datasets used are not upto date with the current dates. To improve on this, we will need to use more recent data to get clear picture of the actual market.

# Recommendations

- Microsoft should borrow ideas from these top performing studios and learn from their production techniques
- Microsoft should produce movies in whichever language that fits the targeted audience, since despite English, French, and Spanish being most popular languages, movie popularity does not depend on the language.
- Microsoft should allocate sufficient resources to the production of films to guarantee their quality, since the higher the budget of production of a film, the higher the quality, translating to high number of views and eventually a high gross revenue.
- Microsoft should produce video content within a runtime range of 75 – 150 minutes.
- Microsoft should not only factor in the critics' views but people's reviews, and act on it to produce video content that satisfies the viewers' needs.
- Microsoft should create Science Fiction & Fantasy films, Action & Adventure films and Kids & Family films among other top most profitable genres in order to make high gross revenue.

*Thank You.*