Movie Metadata Analysis

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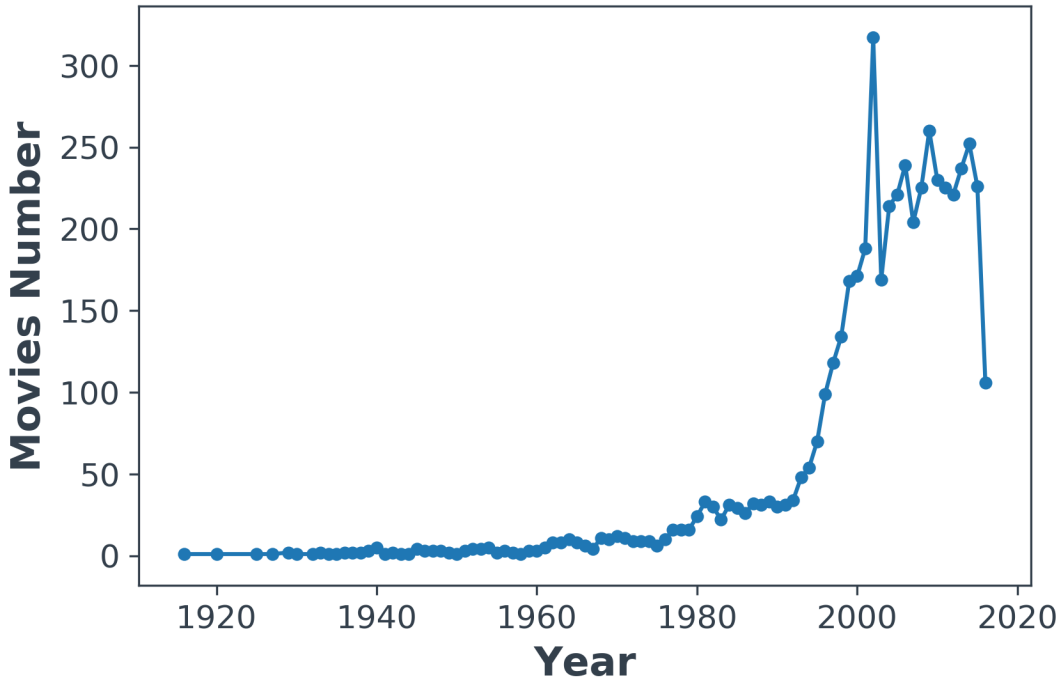
1.

What are your observations based on exploration of this data?

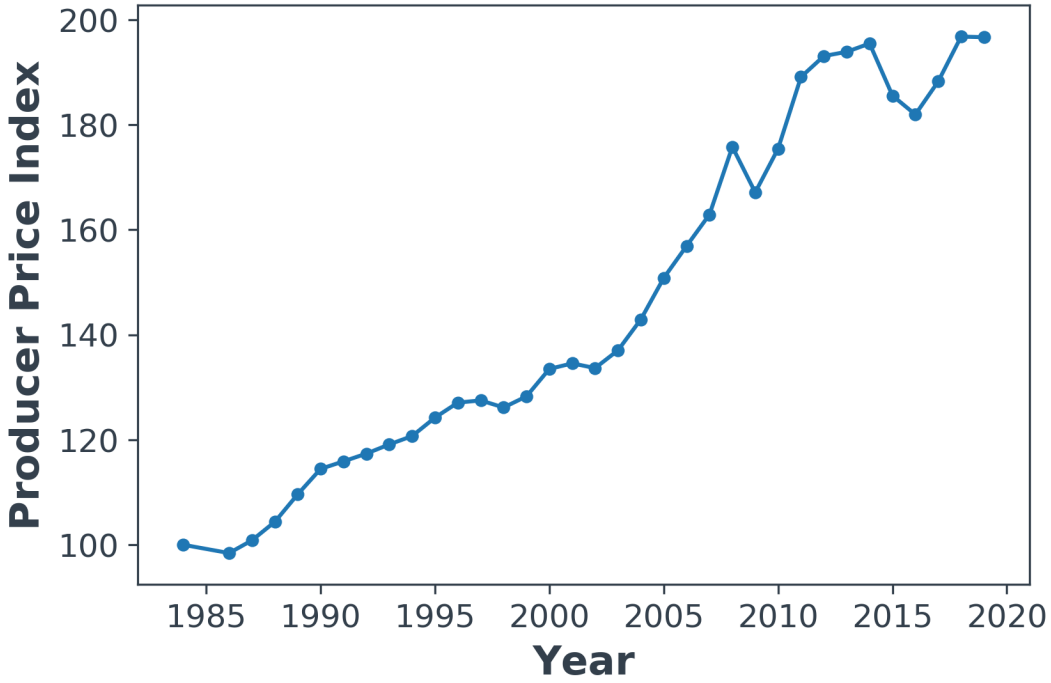
Number of Movies Over Time

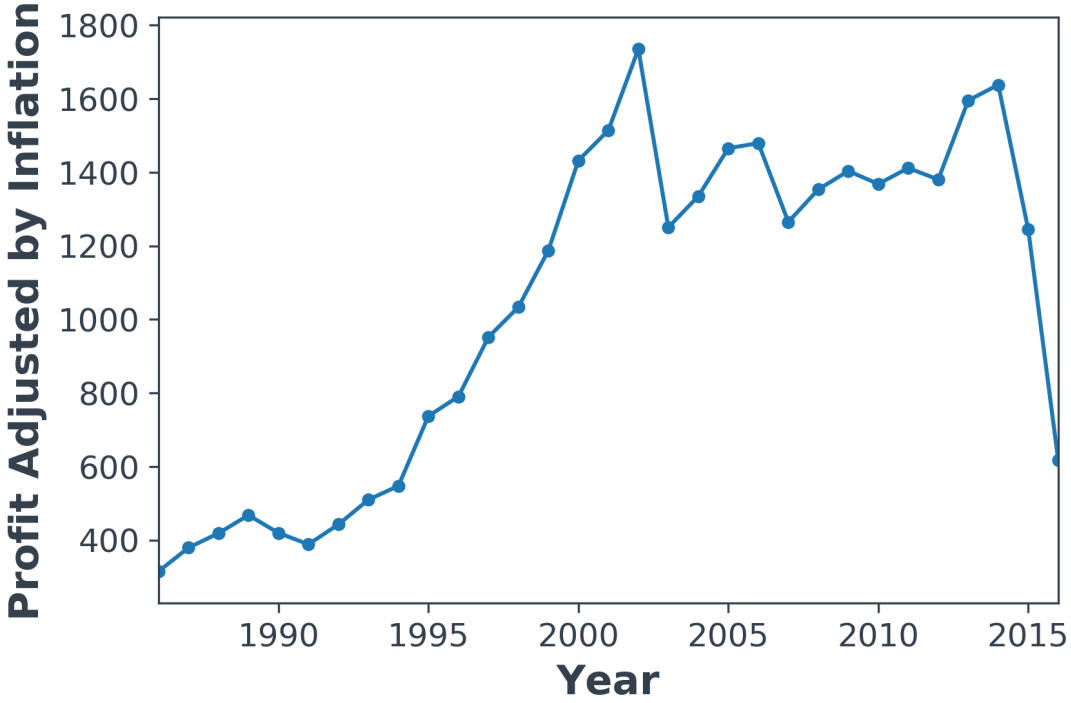


- Note 1. Before 1995 number of produced movies remain very low, at the beginning of 2000 we can observe sharp increase in produced movies number.
- Note 2. The last point significant drop most likely correspond to the lack of observations for the last year in data set so we don't need to take it seriously as drop due movie domain overall
- Note 3. It might be difficult to analyze some features, for example, '*number of facebook likes*' since people start to use facebook not so long time ago.
- Note 4. We can reasonably delete very old movies without any loss since they don't provide much information for the future implementation.

Let's take inflation into consideration

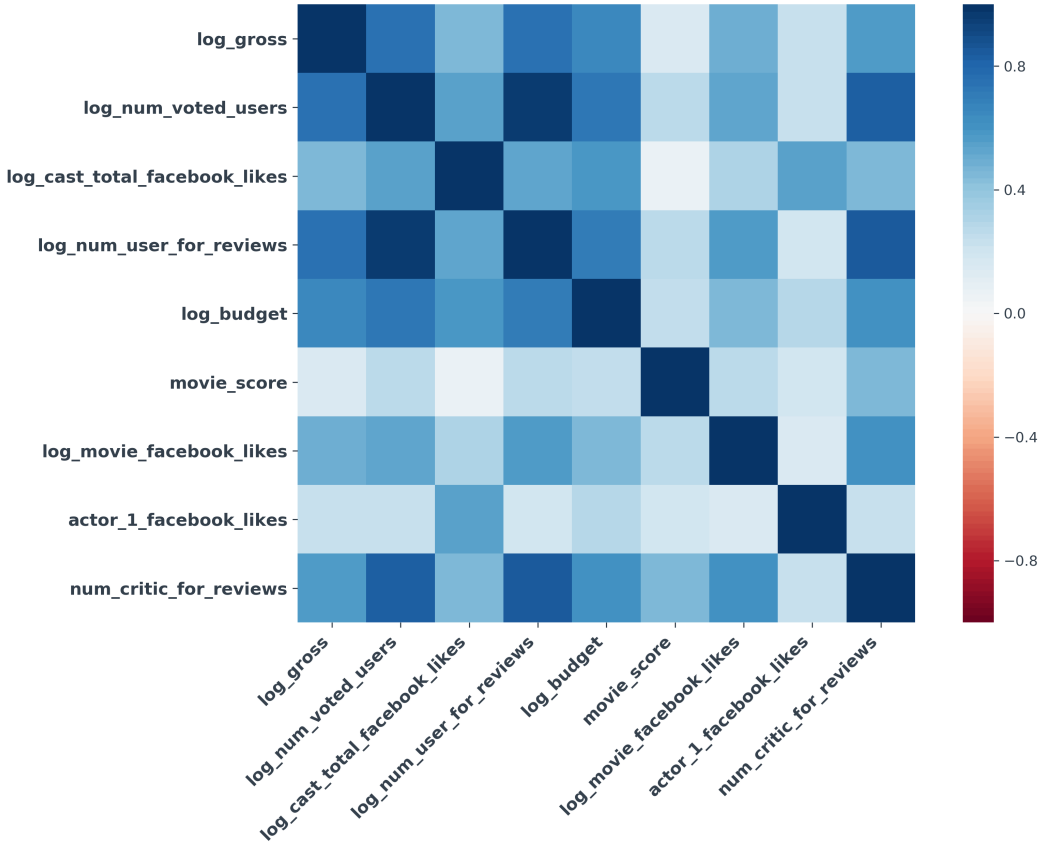
To make analysis more fair I would like to adjust quantitative variables connected with the level of price by inflation impact*





* Producer Price Index was taken from https://inflation

How quantitative features are correlated?

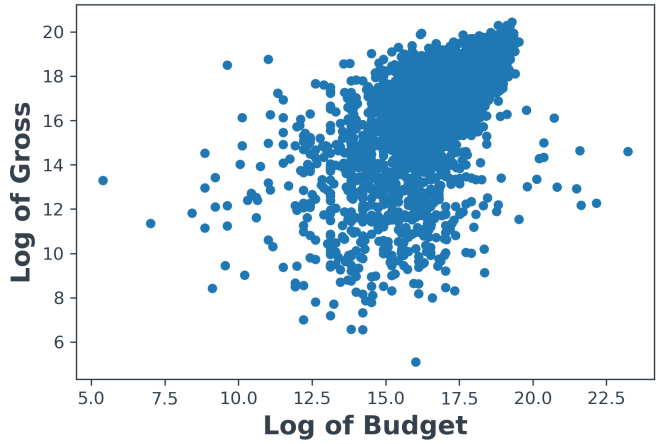


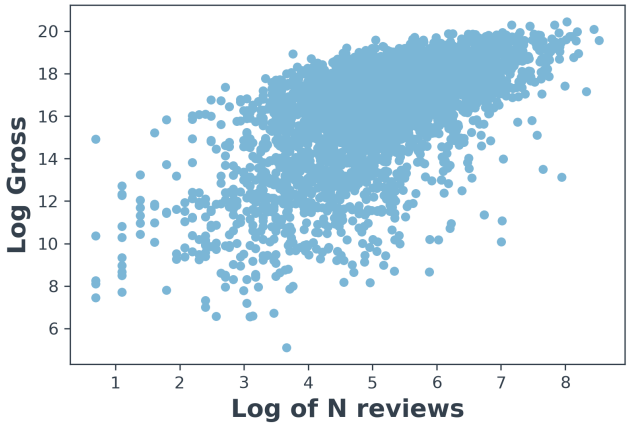
Take-aways:

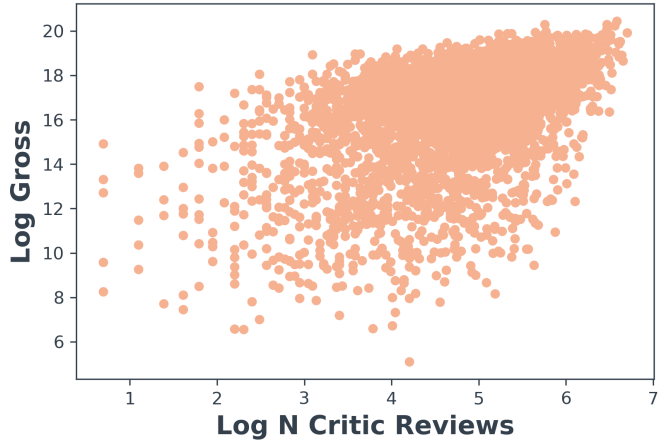
- Log_gross correlated with Log number of votes, Log Number of users who gave a review and Budget
- 'log_num_votes_users', 'log_num_users_for_reviews', 'log_num_critic_for_reviews' are highly correlated – can delete one variable from data set
- No high correlation between gross and any sort of likes (cast and movie)

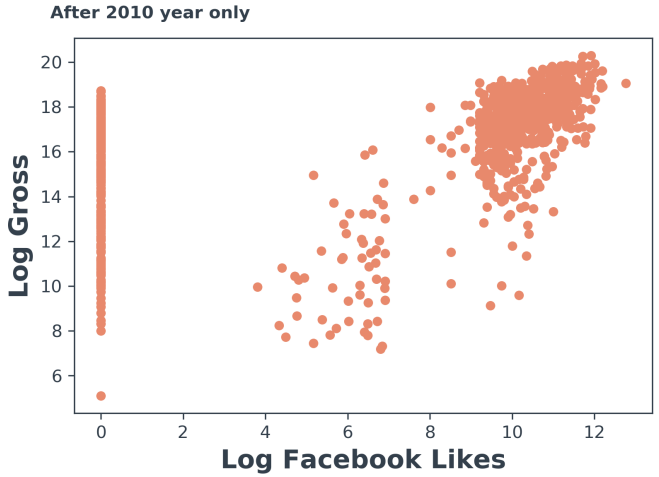
*Data Set include inly movies that were produced after 2012 (before 2012 Facebook wasn't so popular)

Scatter Plots





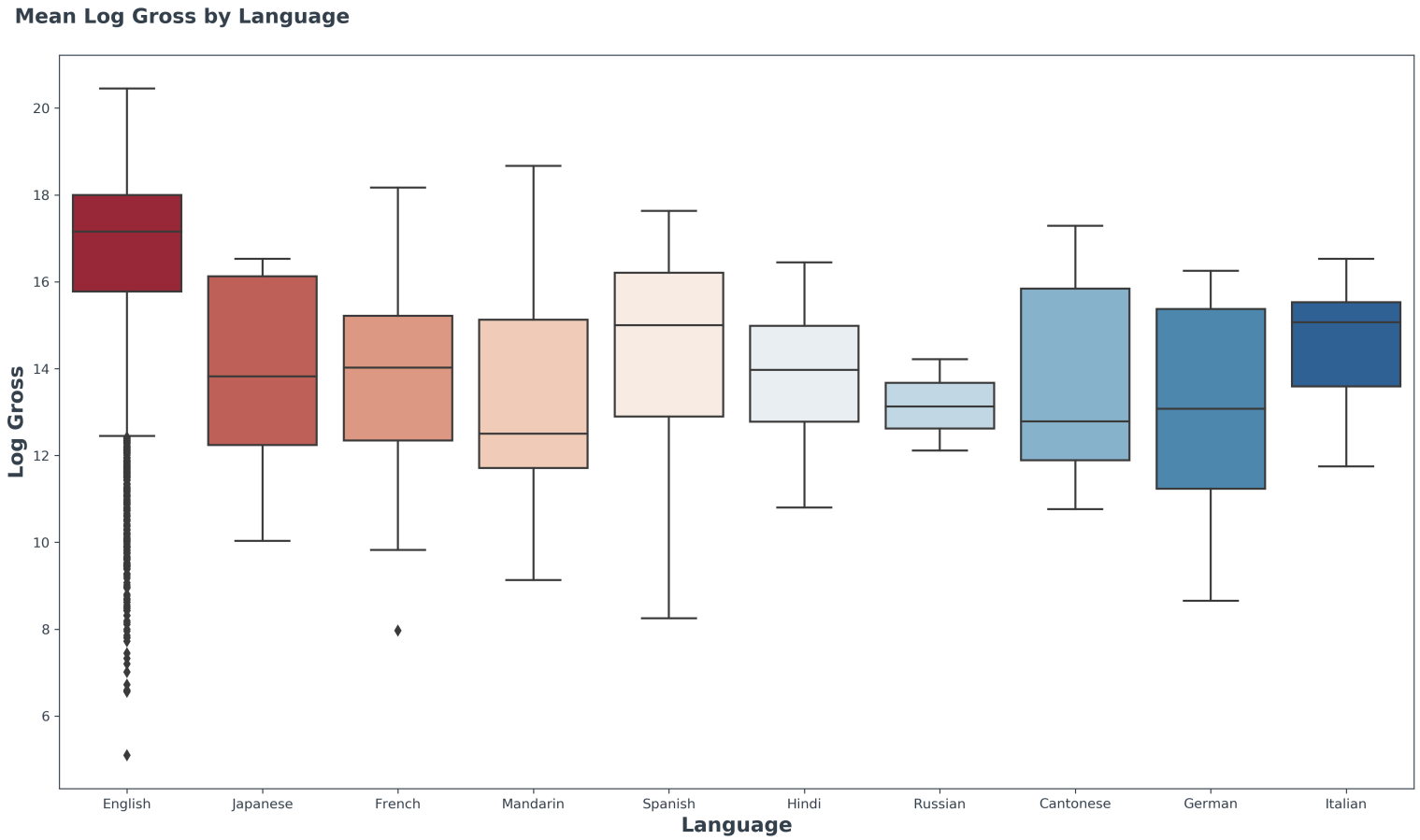




Take-away:

We haven't found the correlation between 'Gross' and 'Number of Likes' on the previous slide (heatmap), but based on the scatterplot they actually have some sort of dependency. But still for most of the movies people don't react on the Facebook with likes.

Exploring Gross by Language

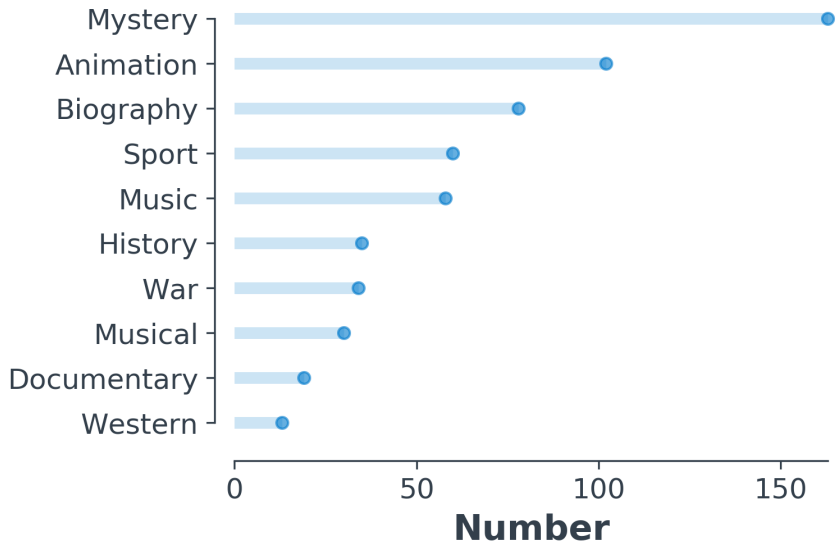


Take-aways:

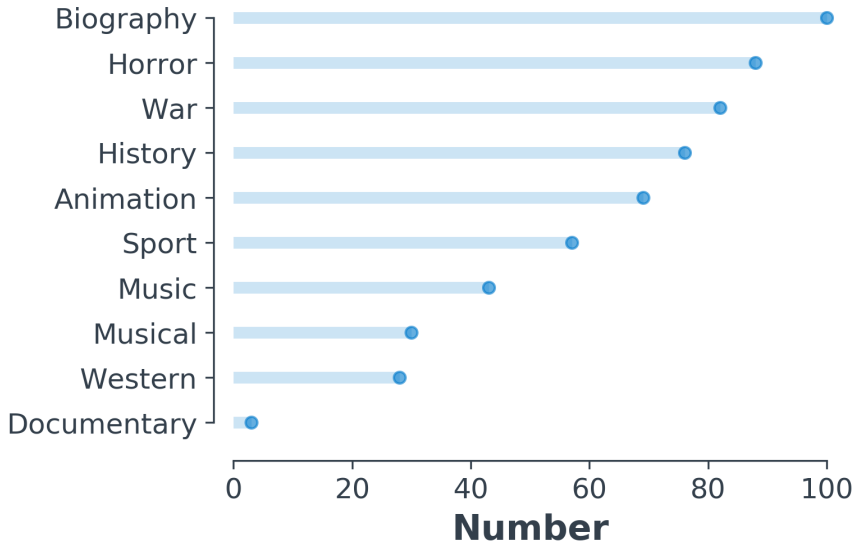
- English has the highest mean of Log Gross
- A lot of outliers below the 3q+1.5IQ in Log Gross of English movies
- Most of the movies in the data set are in English (93%). So this feature is no so important.

Exploring Genres

Most Profitable Genres

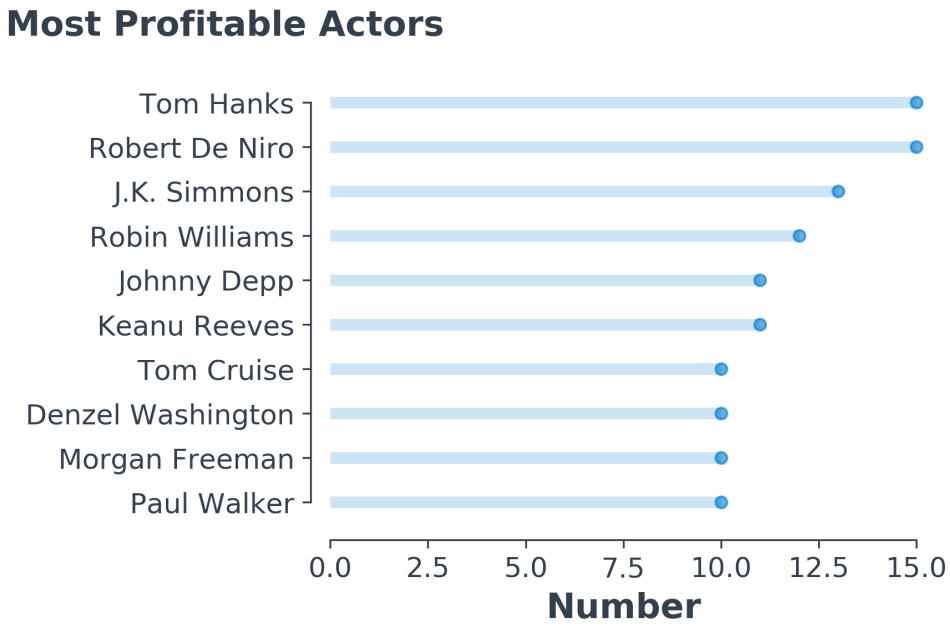


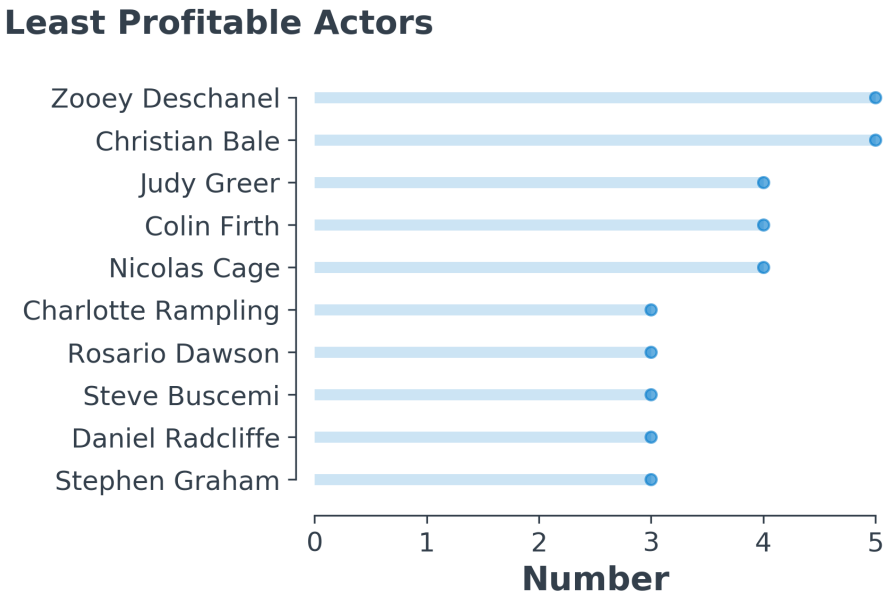
Least Profitable Genres



Biography, Horror, War Genres specialize on specific auditory, whereas Mystery has very wide auditory – being loved by kinds and adults

Exploring Actors

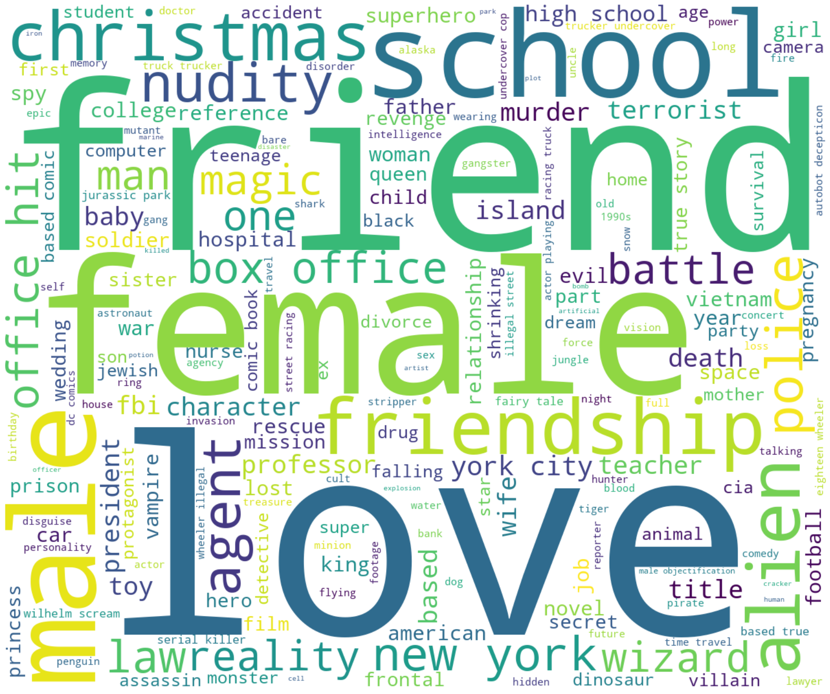




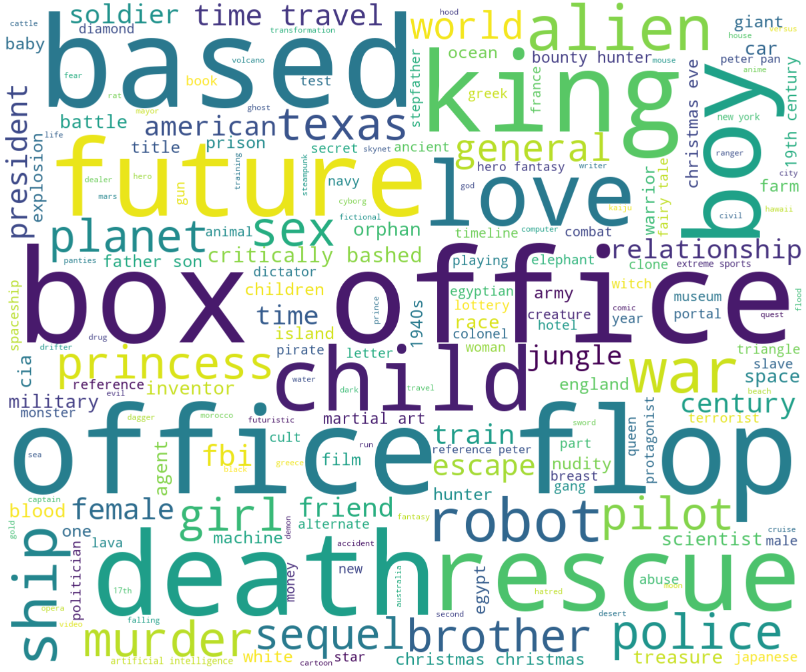
As expected we can often see most popular actors in the list of most profitable movies.

Exploring Key Words

Most Profitable Movies



Least Profitable Movies



Note. Words Cloud helps to get some understanding on what key words present in profitable and not profitable movies. Looks like most profitable more centered around the idea of friendship, love and other positive aspects of live (again this topic captures wider auditory). Whereas on the least profitable movies side we can see some more specific words, for example, ‘king’ might be connected with the historical movie, some other examples: office, war, future, etc.

Exploring Other Features

Other features that was considered don’t impact on profitability of movies so much, for example:

- Duration
- Color
- Face number at Poster
- Movie link

2.

What is the recipe to make a blockbuster, profitable movie? Share your hypothesis and insights based on the data.

Recipe to make a blockbuster: hypothesis

A surprisingly large number of hit films are based on the myth genre. Why? Because myth beats cultural age and national boundaries. This is why ‘‘Batman’ is as popular globally as it is in the U.S.

But you should keep in mind that blockbusters often combine the myth form with at least one other major genre. The other genres help to modernize the myth form, and also overcome many of the weaknesses inherent to this tricky genre. The trick is to find the one or two best forms that will bring out the 'gold' in your idea.

Hollywood is also said to be incapable of making an inexpensive film. These films have massive budgets, so they are expected to make huge revenues, as we also observed in analysis. They go through the trouble to cast big-name actors in their films.

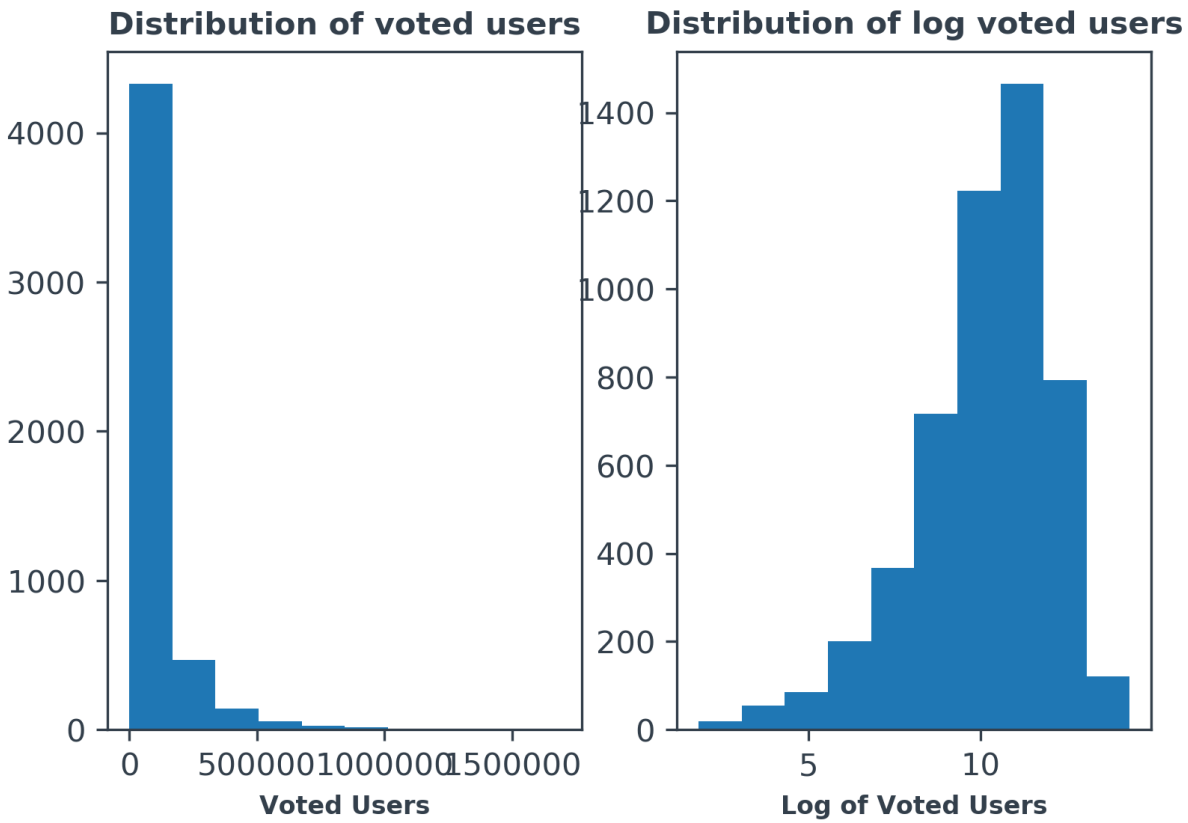
The typical hit film makes more money from foreign revenue than it does from the U.S. So in blockbuster recipe investigation we might want to look at some additional data.

The

Closing Remarks

Appendix

Features Transformation



Note:

In current analysis log transformed features often used since log transformation help to make feature more normally distributed