

Natural language processing with screenplays

Is it possible to predict the success of a movie based only on it?

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The film and TV industry generated 287 Billion Dollars in 2016, and it is expected to generate 324B in 2020.

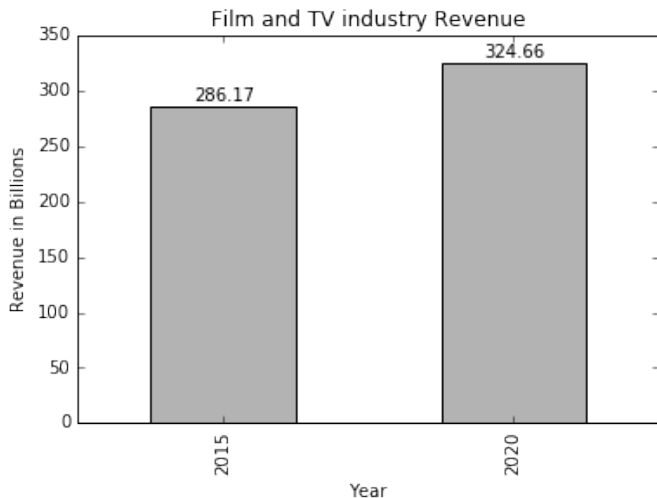


Figure: PWC expects a 13% growth in film revenue in the next 5 years.

Although film industry is strong and profitable, a lot of the movies produced fail to break even.

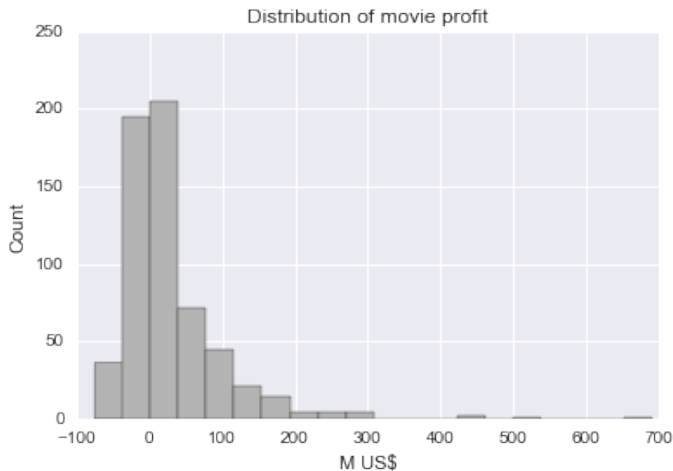


Figure: Close of one third of movies generates loss.

Machine Learning models can help humans make better decisions in two ways:

- ▶ Find what "hidden" features makes a movie successful, and avoid unsuspected busts.
- ▶ Help filtering and prioritizing witch scripts should be read by a human: An average producer gets at least 10,000 scripts a year, most go unread.
- ▶ Lead to better and more realistic decision in budgeting with a good revenue forecast

We can define a movie success in three categories: Financial, Public and Peers/critics

- ▶ Financial success will be measured on how much profitable the movie is (Revenue minus costs).
- ▶ Public success will be measured by IMDB ratings, voted by the general public.
- ▶ Peer success will be measured by if the film was nominated for an Oscar.

Concern: This work presents a sampling bias impossible to avoid

As all movies used to train the models were produced and approved by a human, we can not be sure if the results will be applicable for random scripts.