

PROD.

Profanity in Films

Directors:

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A black and white clapperboard graphic with diagonal stripes and a white bar across the top. The text is centered on the black background.

What is Profanity?

A term used to describe lewd language that contains both taboo and swear language that is considered inappropriate and unacceptable to use (Feldman et al., 2017)



Background on Profanity

- Profanity has been shown to have positive effects
 - E.g., stress relief, communication and socialization enrichment (Baruch et al., 2017)
- Profanity was introduced into films as black dialect during the “Blaxploitation films” era between 1969 to 1974 (Brown 1994)
- Since then, profanity has become more popular within films (Tuttle 2018).



Research Question

How has the social perception of profanity shifted across the 20 years as indicated by the proportion of profane words utilized within the top 10 movies over the past 20 years and their respective age ratings, box office performance, and review scores?

A graphic of a clapperboard with a black and white striped top bar and a black body. The word "Hypothesis" is written in white text in the center. Below it, a paragraph of text is also in white. The clapperboard has two small white circles on the left side, resembling rivets.

Hypothesis

We hypothesize that profanity has grown to be more tolerated within popular American opinion. Specifically, we predict that usage of profanity in films has increased over the years with age ratings relative to profanity being less correlated as time goes on, while revenue and review scores of the movies increase.

Data Sourcing

The Movies Dataset

Metadata on over 45,000 movies. 26 million ratings from over 270,000 users.



movielens

Non-commercial, personalized movie recommendations.





Data Cleaning: Inclusion Criteria

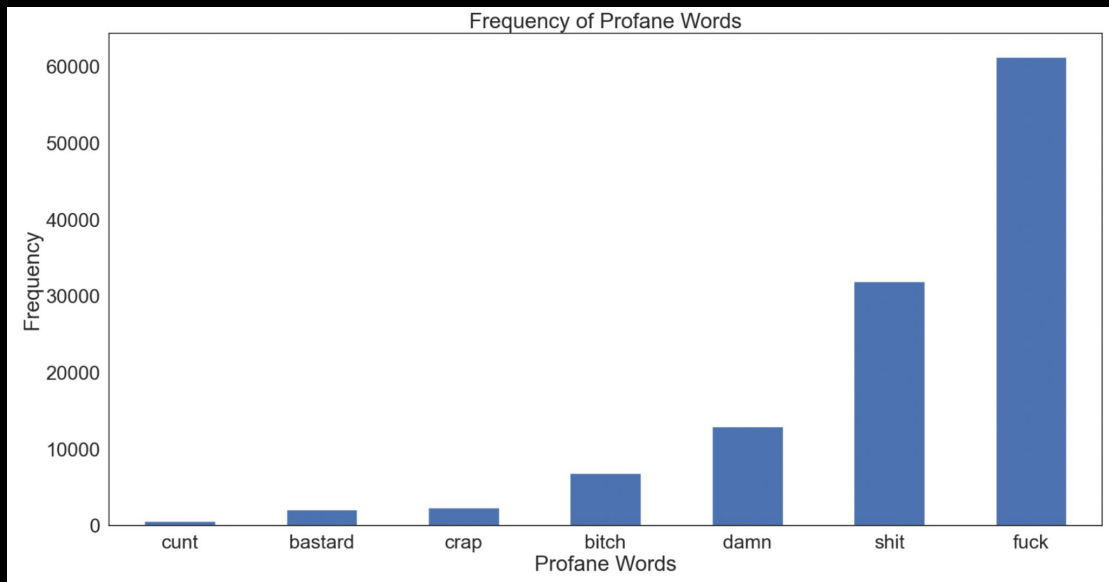
- Inclusion Criteria:
 - Movies have made at least a \$1 in profit
 - Movies have been released to the public
 - Movies were released in English

A graphic of a clapperboard with a black and white striped top bar and a black body. The title 'Data Cleaning: Exclusion Criteria' is centered in white text.

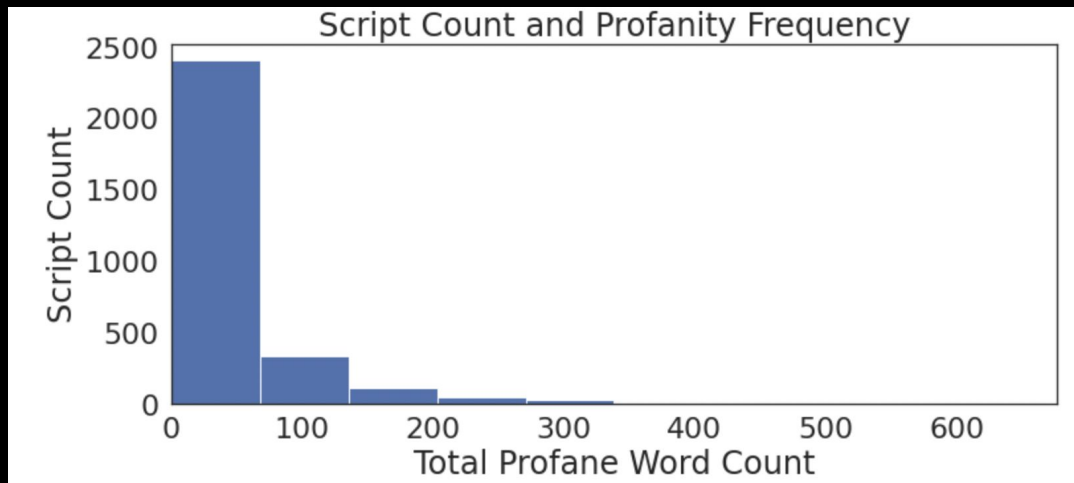
Data Cleaning: Exclusion Criteria

- Exclusion Criteria in order:
 - Movies which have never been released to the public
 - Movies which were not released in English
 - Movies that made \$0 in profit
 - Movies which were not released in theaters
 - Removed movies with less than 100 reviews

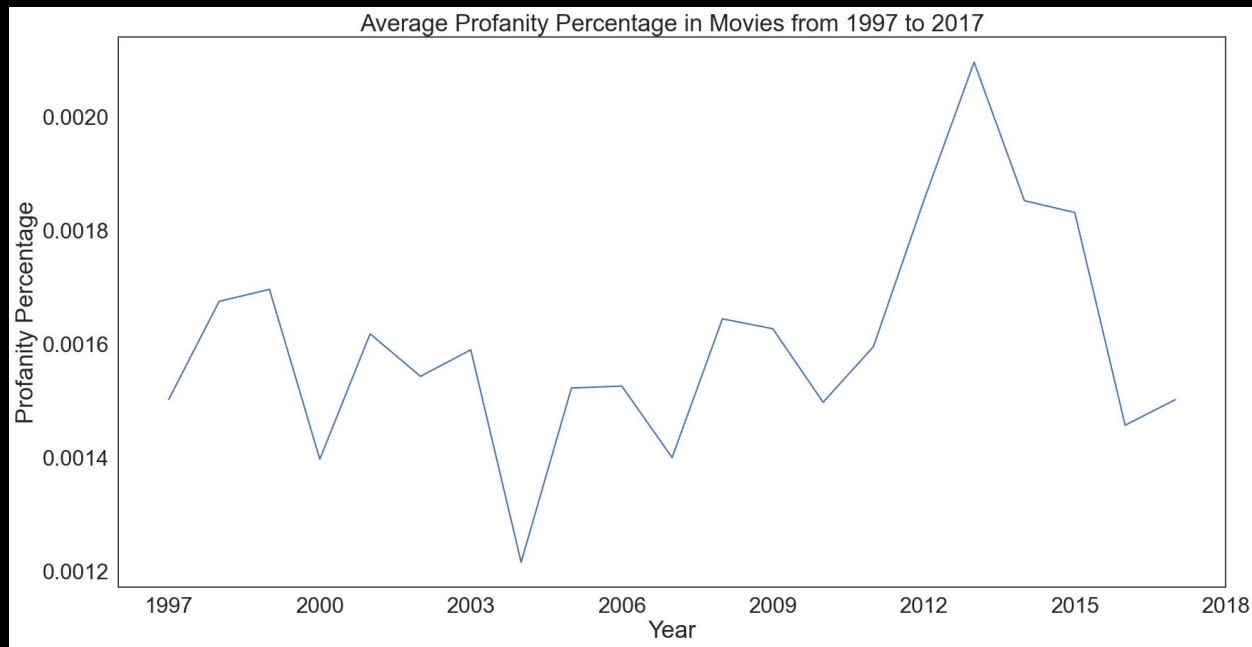
EDA + Data Analysis



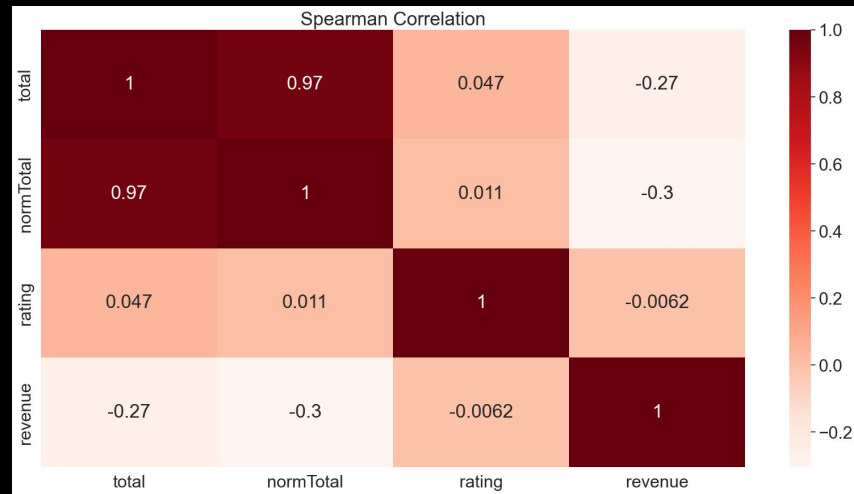
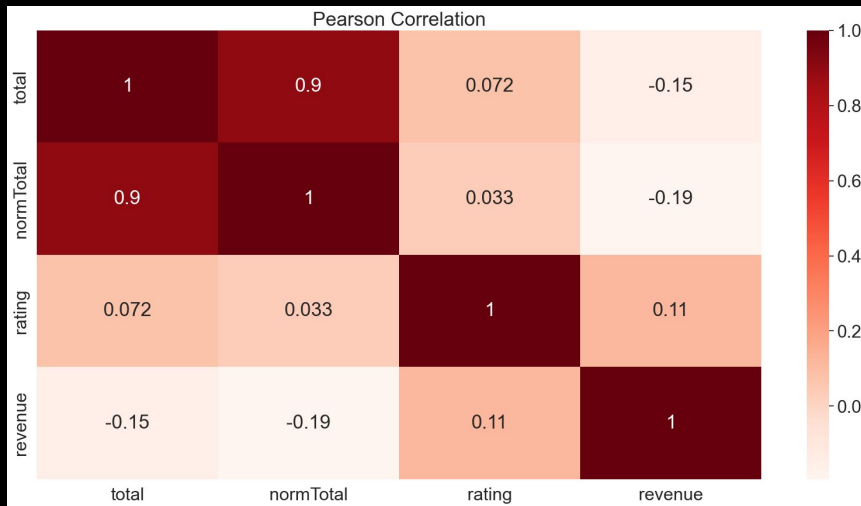
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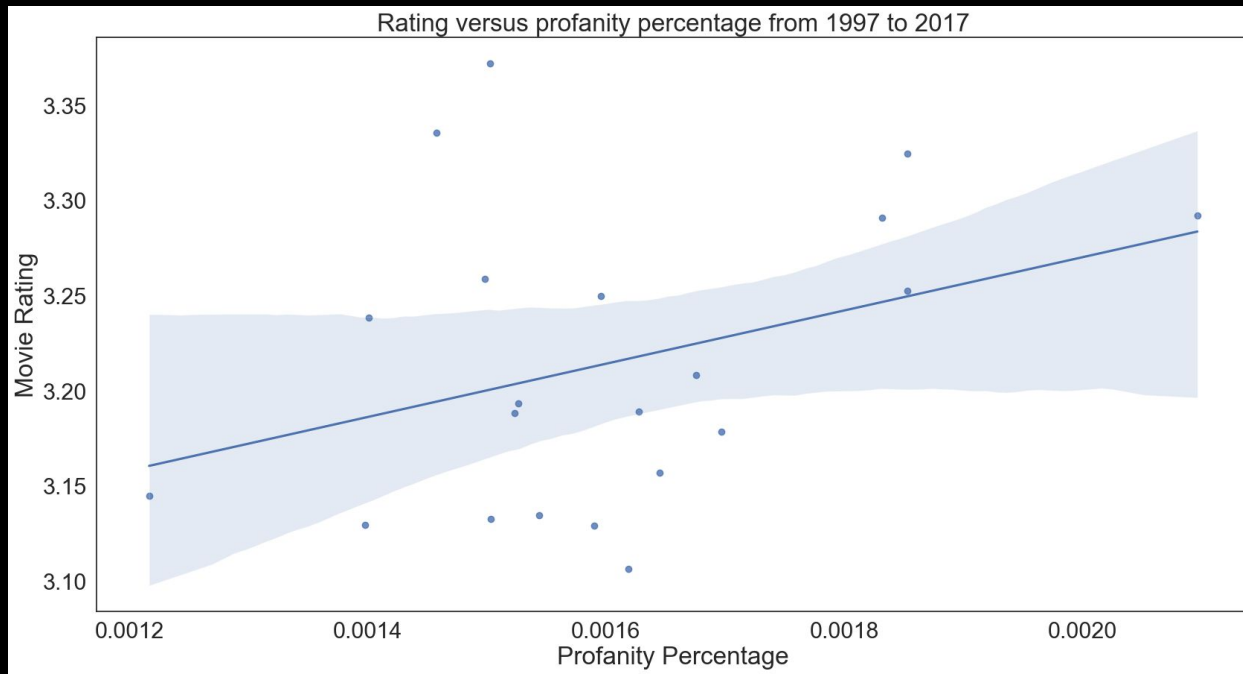
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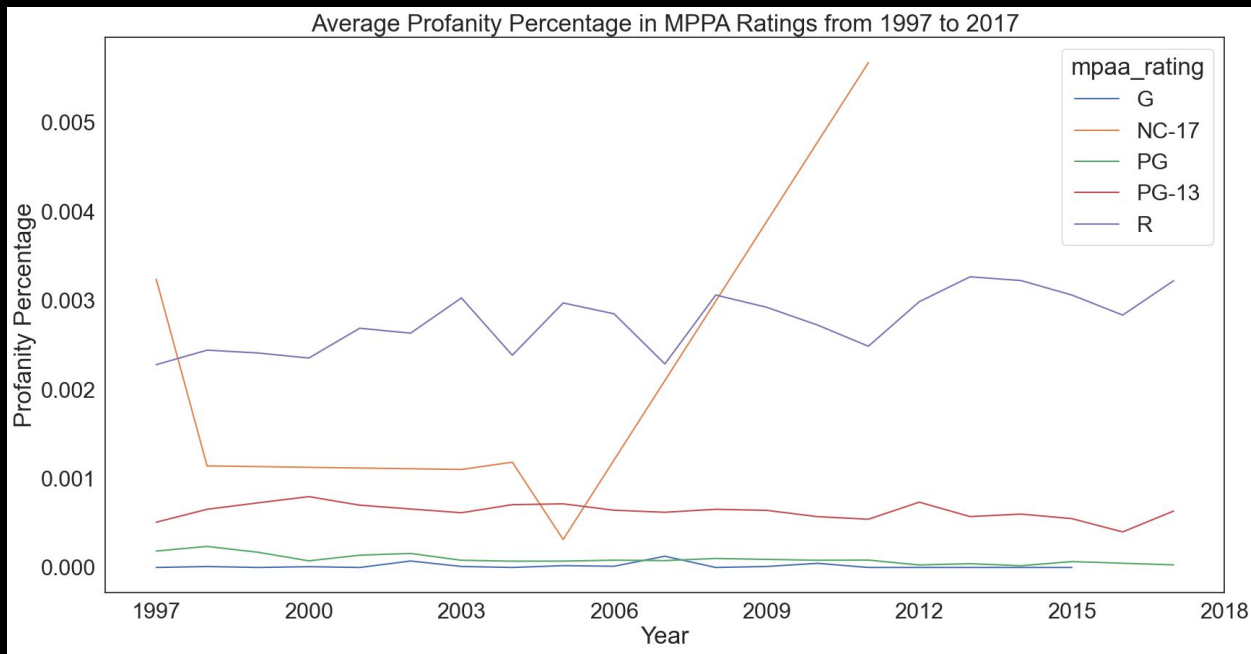
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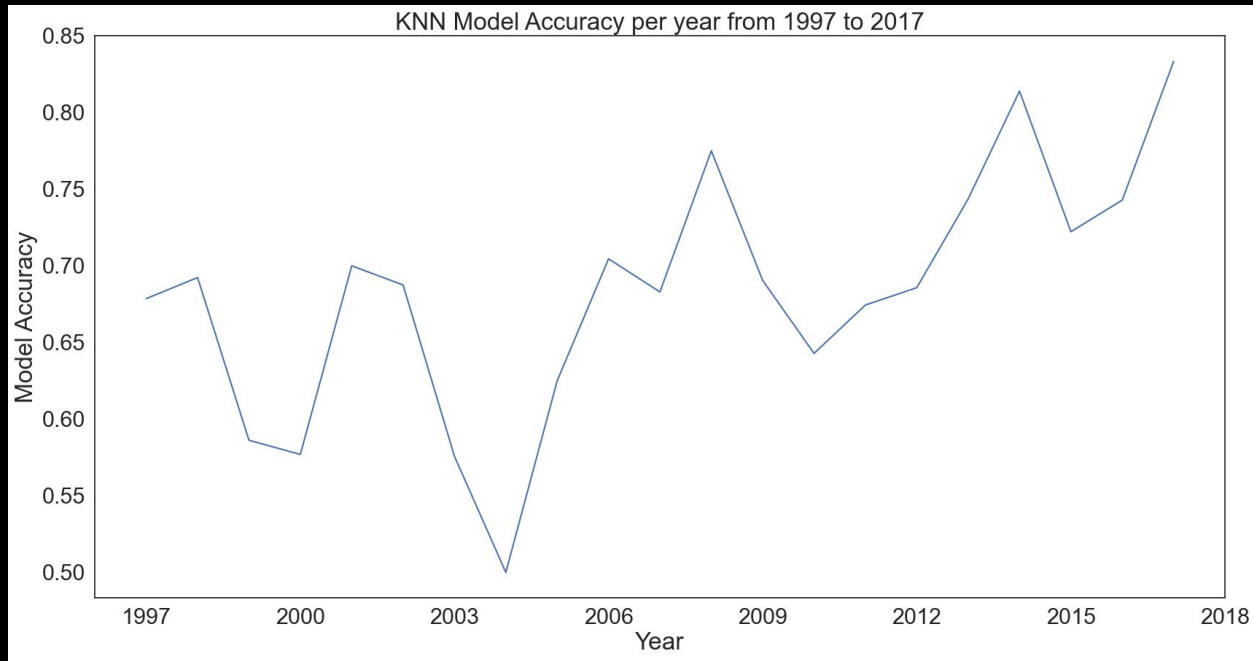
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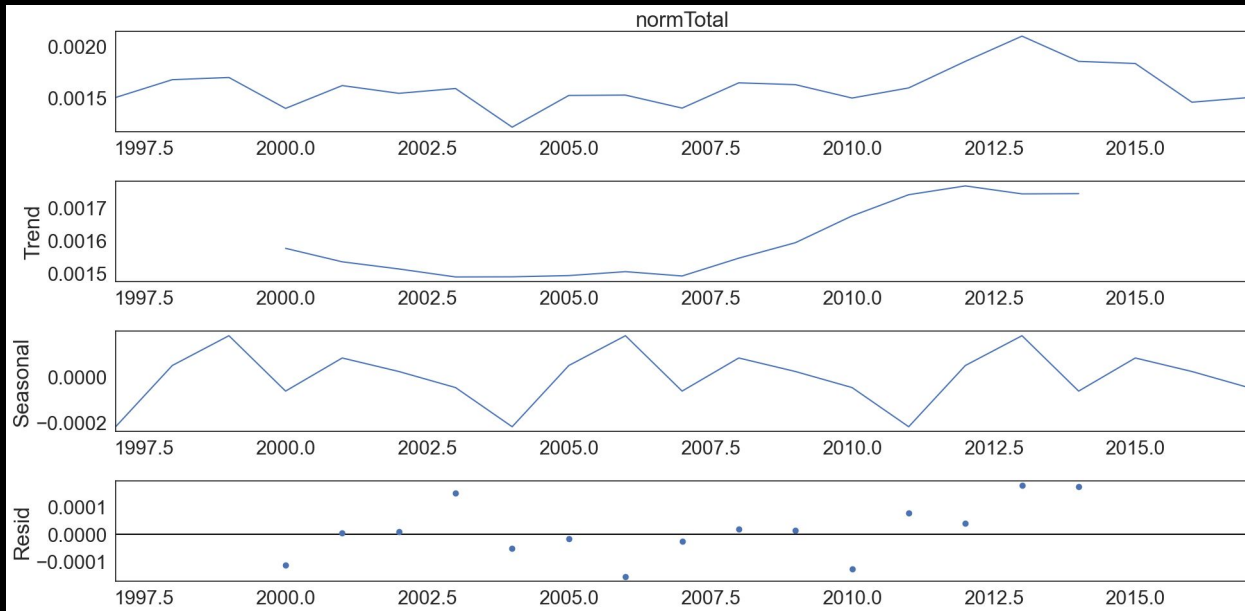
EDA + Data Analysis



EDA + Data Analysis



EDA + Data Analysis



A graphic of a clapperboard with a black and white striped top bar and a black body. The word "Limitation" is written in white text in the center. Below it, three bullet points are listed in white text. The clapperboard has three small circles on the left side, representing rivets.

Limitation

- We were limited to looking at the films between the years of 1997 to 2017 due to the database only having films up until the year of 2017.
- There was not much research that had looked at our topic.
- Limitation was the fact that we had to use multiple databases for our project in order to gather all the information we need

A graphic of a clapperboard with a black and white striped pattern. The top bar is black with white diagonal stripes. Below it is a white bar with black diagonal stripes. The main body is black with white diagonal stripes. The text "Ethics and privacy" is centered in the white bar.

Ethics and privacy

- Data is based off of content rather than the cast, production or even movie theater location; therefore no personal information is involved
- We were aware of the themes of the movies we include and excluded movies which have been known to incite harm.
- We avoided actively offending readers of our analysis with the words we choose to include within the analysis.



Conclusion

- There isn't generally a neat trend of its changing perception over the years with just movies
- We can be predicted from profanity usage what age is appropriate to view movies as seen by our prediction models,
 - However, the general perception of content utilizing profanity is more complex as seen by the statistical insignificance of movie ratings and box office performance.

Overall, there's no simple explanation within movies for how people have viewed profanity, but it could be stated that such shows are intended for a mature audience and viewer discretion is advised.