The Relationship Between the Oscar Awards and Consumer Preference

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The Big Questions

Is consumer's preference predictive of which films will be nominated and receive the specific academy awards ? How do the consumer's preference change after a movie receives an award?

Initial Exploration

We explore the *movie_industry data* and *Genome Tags*

Distribution of Rank by Relevance
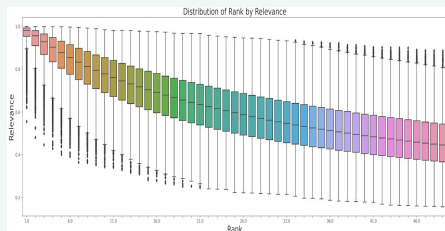
Average Relevance of Top 50 Genome Tags

Word Cloud of Genome Tags of movies similar *Toy Story*

About the Data and Model

We have used data from GroupLens Research Group about movies and ratings from users, the Oscar Award and movie metadata. A ***movie*** can be represented by genome tags, movie genres, or clusters of genres.

K-Means algorithm performs best for the clustering algorithm. For the predictive model, the random forest model has achieved **90% accuracy** for predicting the Oscar nominees, and with the feature importance, the result is also **interpretable**

Trend in Consumer preference

Visualization of clustering

Consumer Preference Clusters

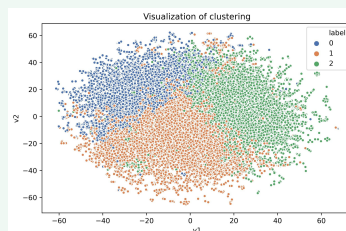
Visualization of clustering
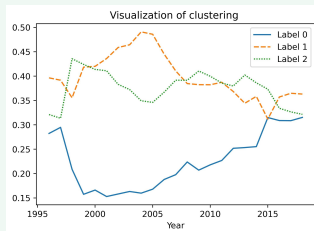
Top Features in Random Forest
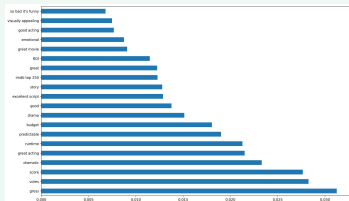
The most relevant features for predicting the Oscar Awards were: Financial indicators, Votes and Ratings, reflecting preferences
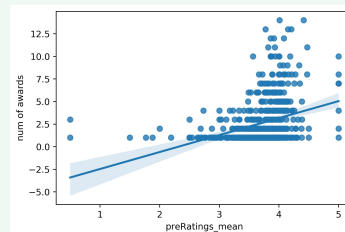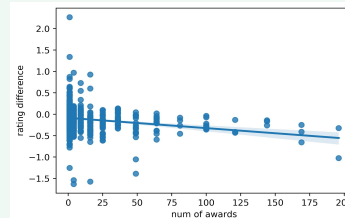
Correlation map

Statistical Analysis

Ratings increase the number of awards won

Awards narrow (pre-ratings - pos-ratings)

Conclusion

1. Consumer preference changes over time and influences which movie is nominated and wins the Oscars

2. Films that won the Oscar Award will have higher ratings post-ceremony.