

# **Predicting Best Picture Nominees and Winners**

A Preliminary Analysis 10/9/2015

# A Best Picture nomination or win is very prestigious and can substantially increase box office revenue

# About the Academy Awards

- The Academy Awards or The Oscars are an annual American awards ceremony honoring cinematic achievements in the film industry
- Awards are given in various categories, with perhaps the most prestigious being the award for **Best Picture**

Why They Matter

- The Oscars are generally regarded as the most prestigious awards in film
- Additionally the nominations and awards provide tremendous exposure
- A Best Picture nomination alone has been estimated to increase box office revenue by ~\$6.9 million\*





# Unfortunately, there is no "magic formula" for predicting Best Picture success

### **Best Picture Prediction Model**

**The Good** 

My best model is **98% accurate** at predicting Best Picture winner / nominee status

The Bad

**BUT...** does so by saying **no movies are ever nominated** (much less picking a winner) yielding a **0% true positive rate** 

The Ugly

"Forcing" the model to make predictions leads to **strong overfitting**, and simply **increases the number of false positives** without any increase in true positives

There is simply **too much variability** movie to movie to accurately, and consistently predict Best Picture nominations with a single model



# There are however some factors that *do* improve a movie's chances

### **Factors that are Good Predictors of Best Picture Success**

1. Director(s)	
2. Actors / Actresses	Strongest
3. Writer(s)	
4. Genre	
5. Country	Decent
6. Language	
7. Critical Opinion	Gatekeepers
8. Public Opinion	
9. Number of nominees in year	Marginal
10. Month of release	

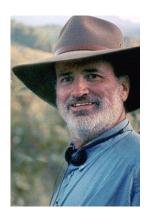


# People matter!

## People that Most Contribute to the Likelihood of Best Picture Success

### **Directors**

#### 1. Terrence Malick



- 2. Frank Darabont
- 3. Peter Jackson
- 4. Martin Scorsese

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#### **Worst:**

1. Tim Burton

### **Actors**

#### 1. Jack Nicholson



- 2. Tom Hanks
- 3. Russell Crowe
- 4. Daniel Day-Lewis

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#### **Worst:**

 Philip Seymour Hoffman

### **Actresses**

### 1. Ellen Page

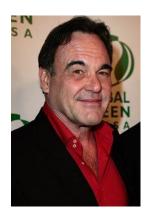


- 2. Jodie Foster
- 3. Mila Kunis
- 4. Amy Adams
- 5. Sandra Bullock
- 6. Keira Knightley

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### <u>Writers</u>

#### 1. Oliver Stone



- 2. James Cameron
- 3 Jason Reitman
- 4. Ben Affleck
- 5. Spike Jonze
- 6. M. Night Shyamalan



# Not all genres are created equal

### **Best Genres for Success**

- 1. Western
- 2. Biography
- 3. War
- 4. Romance



## **Worst Genres for Success**

#### 1. Animated



There is a clear bias towards more adult and historical topics



# Don't be foreign

## **Country of Origin**

 Despite their overwhelming number each US movie gets a bump just for being American



## Language

 Similarly, English language movies also get a bump just for being in English





# The opinion of critics and the public matter, but *not* as much as might be thought

## **Ratings by Critics and the General Public**

 Even for the very best movies, critic and public ratings provide relatively little positive boost



 They act more as a "gatekeeper" and punish movies below a certain threshold (~7/10)



# There are still areas for additional exploration that could yield further insight and improve prediction power

#### **Data**

- More directors, actors, actresses, writers, etc.?
- Composers?
- Cinematographers?
- Reach (# of screens)?
- Data on other award nominations / wins?
- More historical data?
- Etc.

## Methodologies

- Logistic regression?
- Classification?
- Regression / classifications trees?
- KNN?
- Bayesian probability based approach?
- Etc.



# Questions?

