Predicting Academy Award Winners

Idea: Our basic Idea is to use movie attributes (month of release, actor in lead role, reviews from leading social media etc) to predict the movie's relevance and chance for awards and recognition in leading award shows. We intend to use Academy awards data to test our approaches due to its longevity and public interest.
Data: Our training set would have every film that have ever been nominated for an Oscar under different categories. We aim to develop an effective model that can learn from the past data and predict the results for years it hasn't seen yet.
Deliverables: Set of models which can predict results, given nomination data for any particular year. Brief summary on factors which help movies win awards based on observation.
Team: 2 members. Avneendra Kanva, Ashwin Asokan
Baseline: Before 2008 academy awards nomination list size was 5 & now it's doubled to 10. So a random model had 20% chance of getting it right & now 10% chance to do the same. We would treat a model as credible if it can do better than 25%, but some of the references we have cited below had done remarkably well along the lines of 80% to 90% accuracy. We intend to use their results as baseline for our results. Results from predictwise
Techniques:
Related works that we have explored mostly address the problem with high level objective features & conventional learning models. In the project by Stephen Barber et al [1], they have explored polynomial svms, naive bayes, logistic regression with simple straight forward features and concluded that polynomial svm with kernel of degree 3 and 4 performs best. However, they hypothesize that their results weren't accurate enough, it's difficult to model the process and suggested neural network models for future work. Another related work by Ramesh Sharda et al [3] explored predicting box office revenue with neural network models & they seem to have been quite successful.
Our premise is that, academy awards is a yearly process in which bunch of like minded folks come together and vote to recognize outstanding work in different categories. our hypothesis is that a good model to predict such a process would likely require in-depth feature selection and well designed neural network that layers the non linear dependencies adequately. On the downside NN's require large amount of data. We plan to use our time to experiment our idea building neural networks with different configurations & use accuracy to direct us to destination.
TimeLine:
Nov 6: Extracting features. **Nov 10:**Exploring Neural network on training set.
Nov 13: Getting first set of results. **Nov 16:**Improving the model to get better results.
References:

1. Predicting the 85th Academy Awards - Stephen Barber, Kasey Le, Sean O'Donnell [link]
2. Predicting Academy Award Winners - Firas Abuzaid, Emily Cheng, Omosola [link]
3. Predicting box-office success of motion pictures with neural networks [link]
4. Movie Reviews and Revenues: An Experiment in Text Regression [link]
5. Pre-production forecasting of movie revenues with a artificial neural networks [link]