



# Predicting Online News Popularity

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# Objectives: Increase Popularity of Mashable.com Articles

- Prediction of news articles popularity prior its publication
- Explore what features could help to improve popularity:
  - Day of publication
  - Article length
  - Topic sentiment
  - Channel

The Mashable logo is displayed within a solid blue rectangular box. The word "Mashable" is written in a white, bold, sans-serif typeface, centered horizontally and vertically within the box.

**Mashable**

# Data & Methodology

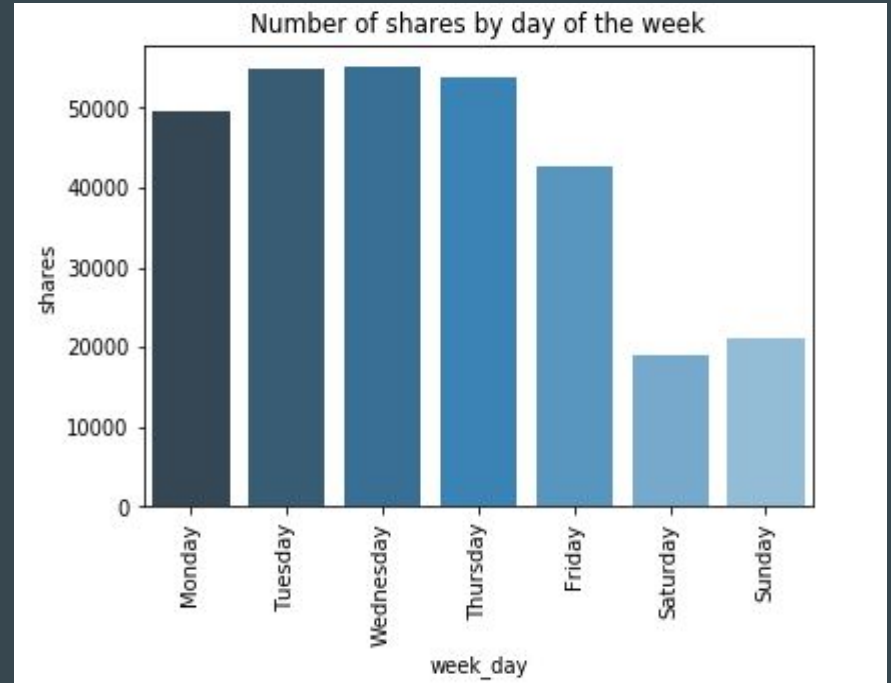
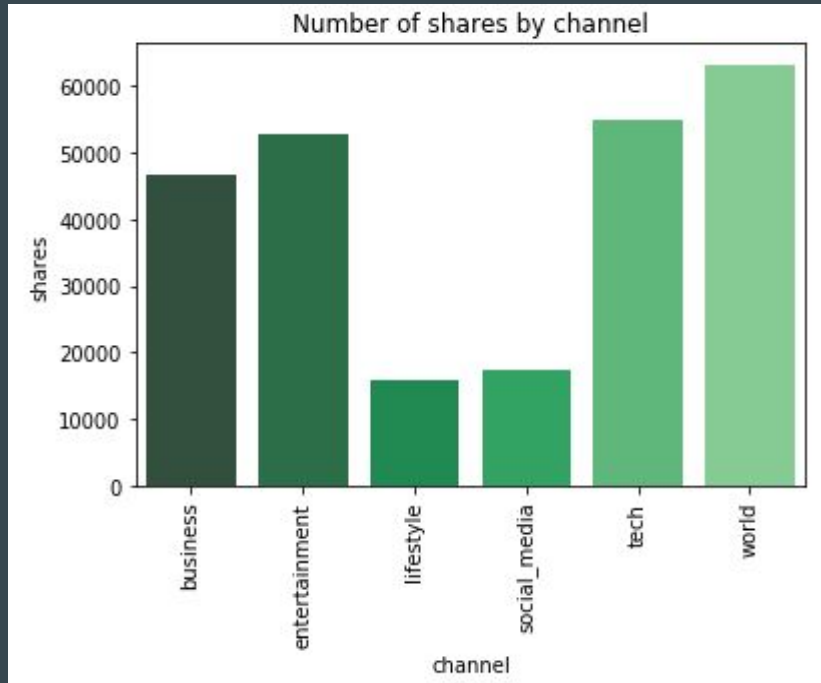
## Data Set

- ★ Articles published by Mashable in 2015
- ★ 58 predictive features
- ★ About 40,000 articles

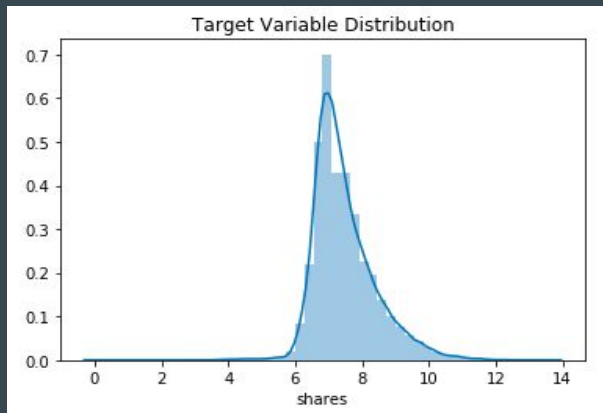
## Methodology

- ★ Popularity: It's defined by the number of times an article gets shared
- ★ Target: estimate number of shares
- ★ Analysis: Linear and Polynomial Regression

# Popularity by Channel and Week Day

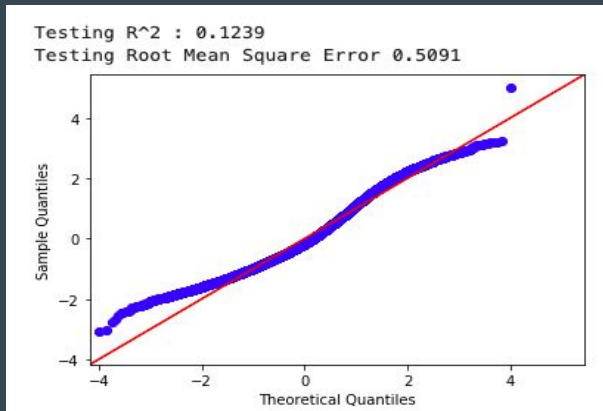


# Regression Analysis



## Linear Regression

- We start with 30 predictive variables
- $R^2$  : 0.10
- MSE: 0.51



## Polynomial Regression - Quadratic

- After removing non significant features (p-value>0.05) we reduced the model to 20 variables
- $R^2$ : 0.12 (20% increase vs initial model)
- MSE: 0.50

# Findings and Next Steps

## Recommendations

- The features gathered by UCI on Mashable.com news articles have little predictive power
- News published on the weekends are less popular than those published during the week
- Lifestyle and Social Media articles are the least popular

## Next Steps

- Other type of regressions could be more suitable for this data set. For instance logistic regression to predict popular vs non-popular articles
- Increasing the data set and looking at different news providers could improve the predictability of the model

# Thank You

# Q&A

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