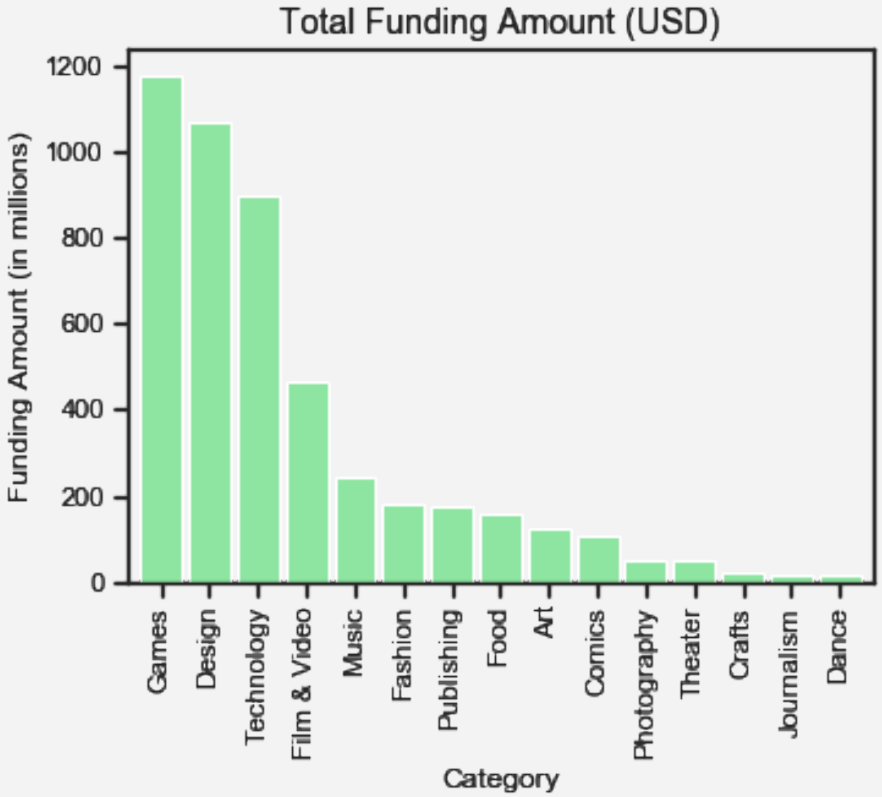
Can Social Media Explain Kickstarter Success?

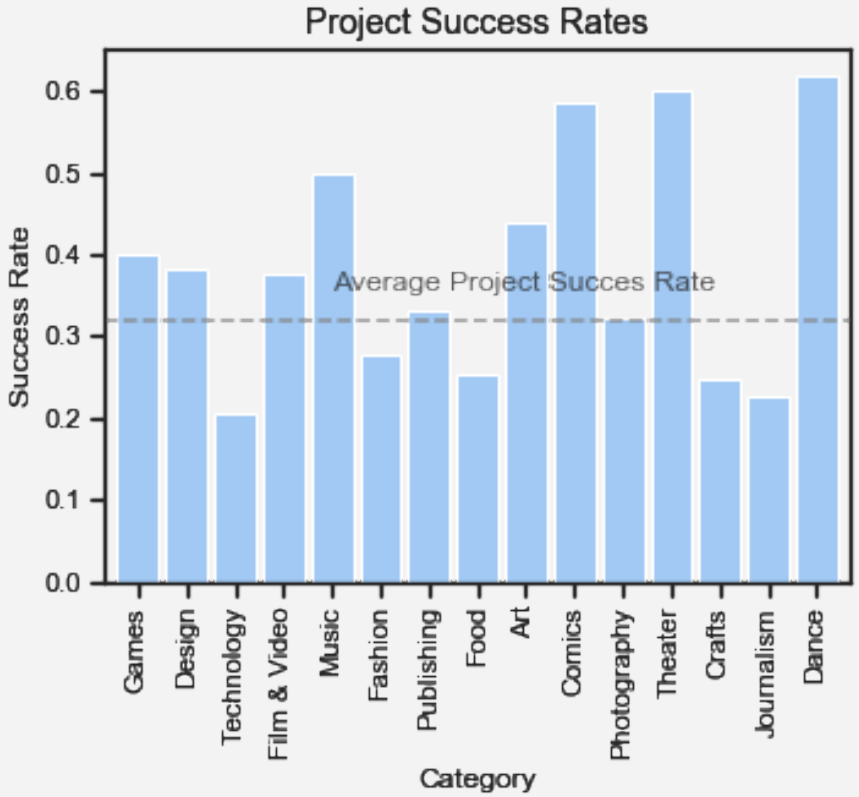
Alex Brooks

What is Kickstarter?

- **Crowdfunding**
- Creative projects
- Individual creators and small brands
- Different tiers of support

The Problem


Total Funding Amount (USD)
Funding Amount (in millions)
1200
1000
800
600
400
200
0
Games
Design
Technology
Film & Video
Music
Fashion
Publishing
Food
Art
Comics
Photography
Theater
Crafts
Journalism
Dance
Category


Project Success Rates
Success Rate
0.6
0.5
0.4
0.3
0.2
0.1
0.0
Average Project Succes Rate
Games
Design
Technology
Film & Video
Music
Fashion
Publishing
Food
Art
Comics
Photography
Theater
Crafts
Journalism
Dance
Category

The Approach

Model 1

+150K unique projects

All project categories

Focus of Kickstarter metrics

Model 2

+5K unique projects

Only tech projects

Incorporate social media

The Data

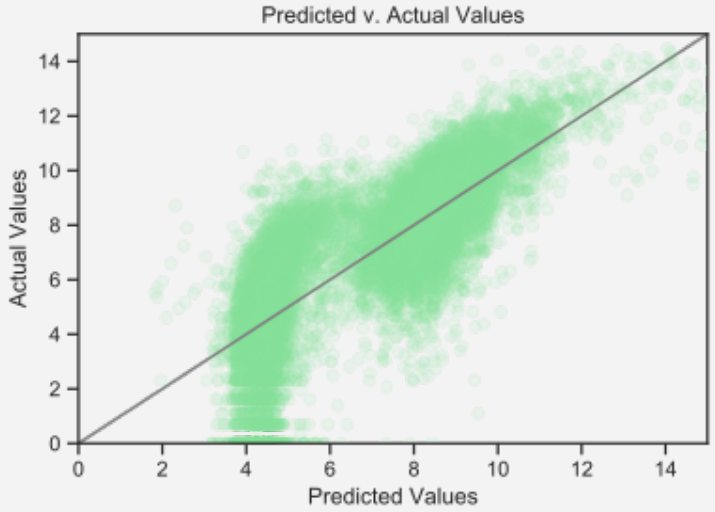
Predict → Total funding amount

Using:

- Funding goal
- Number of backers
- Featured as spotlight or staff pick?
- Season project launched
- Category
- Days between page creation and project launch
- Campaign length

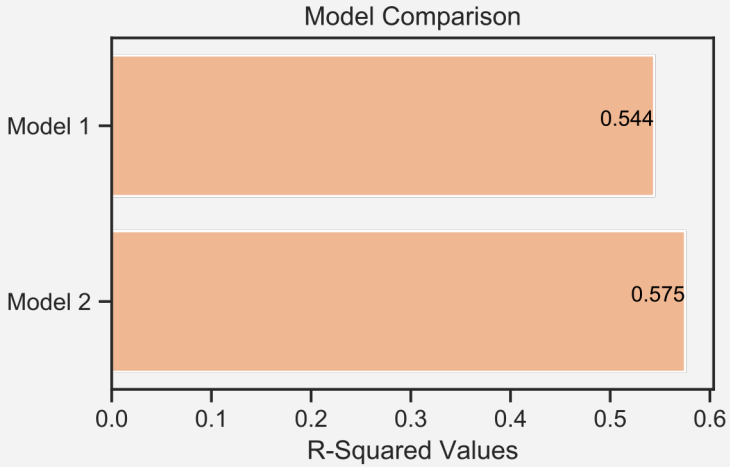
Results & Insights

- Project goal had no impact
- Seasonality had no impact
- **Tech v. non-tech project**
- Staff pick or spotlight dramatically increase funding potential

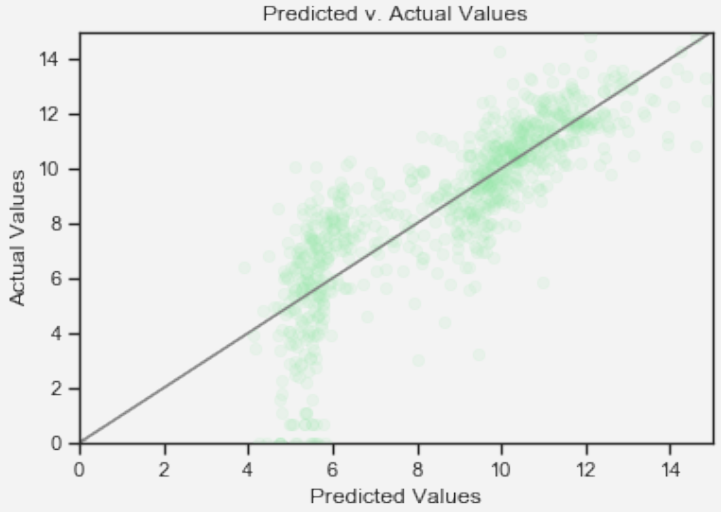


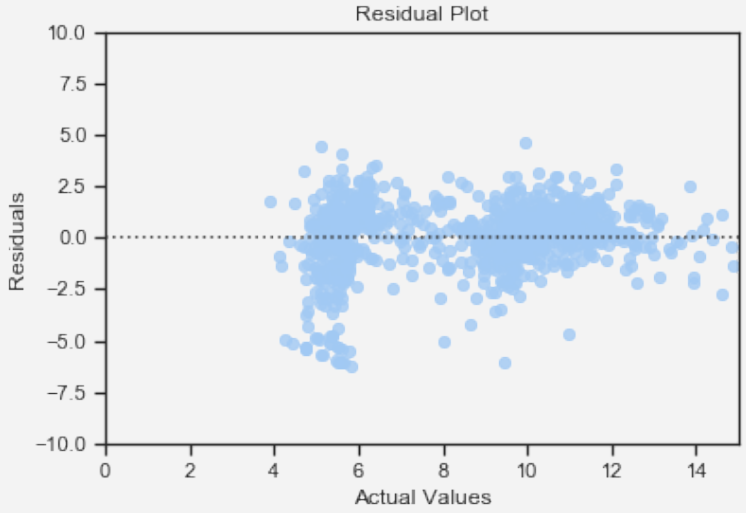
Let’s Get Social

Results & Insights



- Model accuracy increased 10%
- Including a Facebook link had a high impact, other socials did not





Takeaways

- Little platform influence on project funding success
- Typical e-commerce/purchasing behaviors not present
- Including a Facebook link or not provided greater model accuracy

Future Work

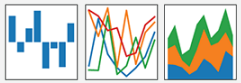
- **Time series analysis (ARIMA)**
  - Monthly backers and funding amounts
  - Monthly social data across platforms
    - Follower growth
    - “Social reach” → content views & engagements
- **Segmentation by support tier → pricing + backers**
- **Larger sample to model social impact**

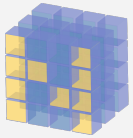
Technologies

matplotlib

pandas

$y_{it} = \beta' x_{it} + \mu_i + \epsilon_{it}$





NumPy

Beautiful Soup

Seaborn

statsmodels

Resources

KICKSTARTER

Web Robots

Kicktraq

stackoverflow

Questions?

Appendix

Model 1

```
<class 'pandas.core.frame.DataFrame'>
Int64Index: 137800 entries, 0 to 194315
Data columns (total 25 columns):
backers_count           137800 non-null int64
country                 137800 non-null object
created_at              137800 non-null datetime64[ns]
deadline                137800 non-null datetime64[ns]
goal                    137800 non-null float64
launched_at             137800 non-null datetime64[ns]
name                    137800 non-null object
spotlight               137800 non-null bool
staff_pick              137800 non-null bool
state                   137800 non-null object
state_changed_at        137800 non-null datetime64[ns]
usd_pledged             137800 non-null float64
category                137800 non-null object
subcategory             137800 non-null object
project_url             137800 non-null object
project_life            137800 non-null int64
campaign_length         137800 non-null int64
launch_month            137800 non-null period[M]
deadline_month          137800 non-null period[M]
daily_amount_pledged    137800 non-null float64
daily_backers           137800 non-null float64
goal_diff               137800 non-null float64
goal_diff_perc          137800 non-null float64
creation_to_launch      137800 non-null int64
season_launched         137800 non-null object
dtypes: bool(2), datetime64[ns](4), float64(6), int64(4), object(7), period[M](2)
memory usage: 25.5+ MB
```

Model 2

```
<class 'pandas.core.frame.DataFrame'>
Int64Index: 4568 entries, 0 to 4567
Data columns (total 29 columns):
backers_count           4568 non-null int64
created_at              4568 non-null datetime64[ns]
deadline                4568 non-null datetime64[ns]
goal                    4568 non-null float64
launched_at             4568 non-null datetime64[ns]
name                    4568 non-null object
spotlight               4568 non-null bool
staff_pick              4568 non-null bool
state                   4568 non-null object
usd_pledged             4568 non-null float64
category                4568 non-null object
subcategory             4568 non-null object
project_url             4568 non-null object
project_life            4568 non-null int64
campaign_length         4568 non-null int64
launch_month            4568 non-null period[M]
deadline_month          4568 non-null period[M]
daily_amount_pledged    4568 non-null float64
daily_backers           4568 non-null float64
social_links            4568 non-null object
socials                 4568 non-null object
facebook                4568 non-null int64
instagram               4568 non-null int64
twitch                  4568 non-null int64
twitter                 4568 non-null int64
youtube                 4568 non-null int64
total_social            4568 non-null int64
creation_to_launch      4568 non-null int64
season_launched         4568 non-null object
dtypes: bool(2), datetime64[ns](3), float64(4), int64(10), object(8), period[M](2)
memory usage: 1.1+ MB
```