



Predicting Social Media

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Times they are a-changin'



1906

Radio

Audio broadcasting talks,
coverage of sporting events,
weather and news



1927

Television

Telecommunication
medium used to transmit
moving images in two or
three dimensions



1990

Internet

World Wide Web,
connecting users their
'home' to the world



1997

Social Media

Online communication
based on user generated
content.
Anywhere, anytime.

How do we keep up with changing times?

- Observe, Learn & Adapt

Purpose of Project: Learn

Use data to train a model to predict what social media platforms you are more likely to use

Exploration & Analysis

Data Source:

PEW Research Center

“Core Trends Survey 2018”

Collected Online Survey

Independent Targets:

Each social media was a separate question

Resulting in individual models

Key Features:

- Frequency of internet use
- If they use social media
- Age
- Different ‘books’ for different users



Flask

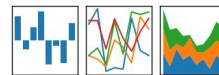


SQLA



matplotlib

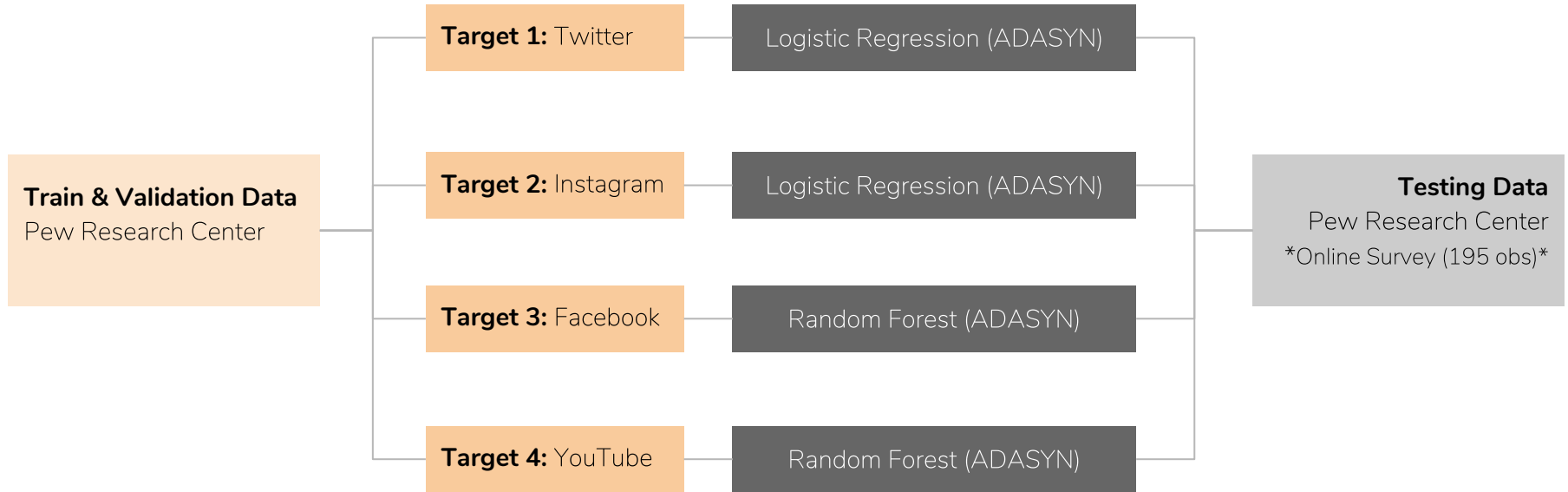
pandas
 $y_{it} = \beta'x_{it} + \mu_i + \epsilon_{it}$



Choosing the right model with F2 Score

	Twitter	Instagram	Facebook	YouTube
KNN	70.09	74.57	92.94	85.31
KNN SMOTE	61.95	75.36	92.49	83.93
KNN ADASYN	70.34	75.07	90.97	78.90
Logistic Regression	71.54	78.27	91.61	82.35
LogReg SMOTE	72.33	75.83	91.61	85.96
LogReg ADASYN	73.15	76.75	91.61	83.28
Random Forest	71.75	75.27	93.18	83.39
RanFor SMOTE	72.88	74.63	94.05	82.85
RanFor ADASYN	72.53	74.29	94.05	86.91
Decision Tree	64.41	69.80	92.64	74.50
Decision Tree SMOTE	69.20	71.96	91.94	71.33
Decision Tree ADASYN	68.39	71.22	91.59	82.69
Voting Classifier (soft)	71.99	75.78	93.18	80.60

Social Media Predictor



Social Media Predictor App

[Social Media Predictor](#) [Take the Survey](#) [About](#)

Welcome

Welcome to the **Social Media Predictor**, this is an experiment. You are about to embark on a probability journey to find out if our model can predict your social media platform preferences. Once you finish the survey, you will get a prediction on whether or not you are a user of Facebook, Instagram, Twitter or YouTube.

For this project the data used to train our models came from the **PEW Research Center**, specifically, from the **Core Trends Survey 2018**. The survey questions are emulated from the original questionnaire.

Now, for the fun part, give it a try!

Take the Survey, let's predict!

[Social Media Predictor](#) [Take the Survey](#) [About](#)

Prediction Survey

Choose the answer to each multiple-choice question, and click on the "Submit" button to find out what social media platform we predict you use.

1. How often do you use the internet?

✓ All the time

A couple times a day

About once a day

Several times a week

Not very often

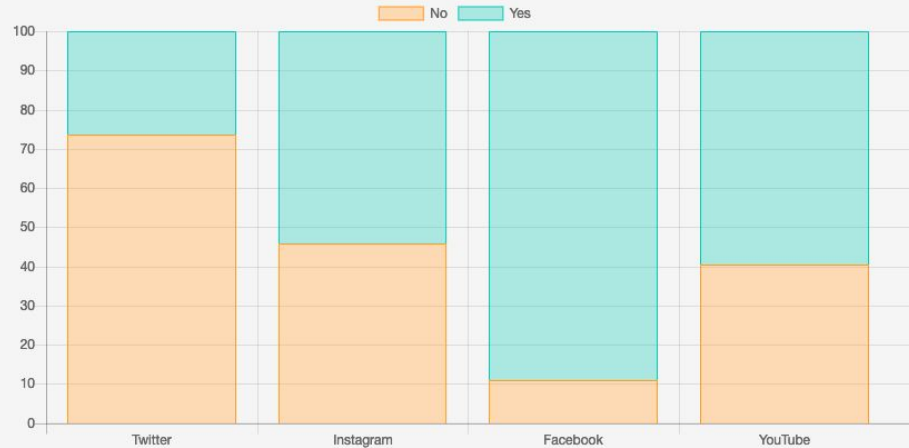
3. Do you usually use social media platforms?

4. Do you have a tablet?

Your Prediction Results

The stacked bars below represent our prediction. It denotes the probability of you being a user of one of the social media platforms we measured. The color green corresponds to "Yes" (you are a user of that platform), while orange means "No" (you are not a user of this social media). The color that is the largest is your prediction.

For example, if "No" is above 50%, you are predicted as not being a user. If "Yes", the opposite is true, if the color green goes below 50% you are predicted as a user of that social media platform.



Ok this is fun...but what's the value?

- Adaptation
- Market Research
 - Identify what platform your client base is more likely to use
 - Existing trend to invest on 'people' not platforms (more bang for your buck!)
- Beyond Business
 - Human behavior
 - Evolving patterns of communication and interaction



Future work

- Collect inputs from app to retrain model to make more accurate predictions
- Expand questions to gather more insights into what determines a person to choose a certain platform
- Improve app presentation and interaction

Thank you

To check out the app, please visit:

<https://social-media-predictor.herokuapp.com/>