

Predict YouTube Video Views



Annie Flippo

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Who am I?



Annie Flippo

Sr. Data Scientist

AwesomenessTV / Dreamworks Animation SKG

Machine Learning Engineer

Product Manager

Coder

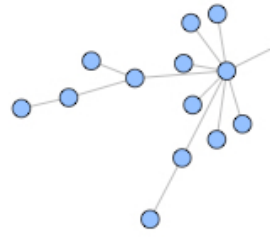


Who is AwesomenessTV?

We're digital content provider for platforms such as Hulu, Netflix, Roku, Verizon & YouTube.



Business Problem



Can we predict how many views a new video will get on day 30?

Purpose:

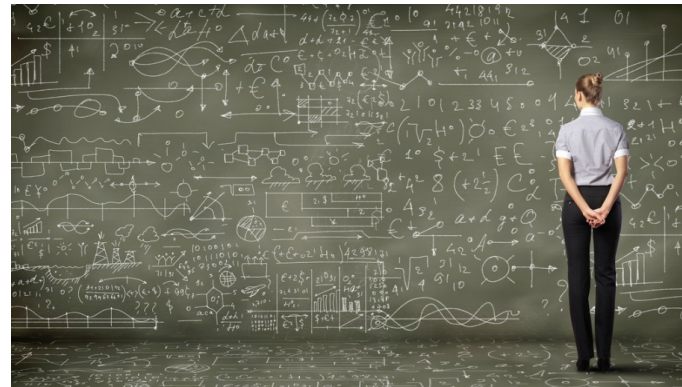


- Know if and when to promote a video
- Better manage marketing budget

Where to Start

Is this a unique problem?

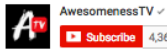
- Review research & literature
- Find others who might have insights



Views Exhibit the Same Pattern



The Summer Challenge | The Intern Life Ep 1



102,015 views

+ Add to Share *** More

1,968 51

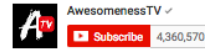
Video statistics Through Oct 11, 2016

VIEWS	TIME WATCHED	SUBSCRIPTIONS DRIVEN	SHARES
101,700	190 days	20	114

Cumulative Daily



GIRLS TRIP | ROYAL CRUSH SEASON 3 EPISODE 1



2,640,093 views

+ Add to Share *** More

53,778 447

Video statistics Through Oct 11, 2016

VIEWS	TIME WATCHED	SUBSCRIPTIONS DRIVEN	SHARES
2,638,867	13 years	2,134	1,802

Cumulative Daily



But the scale of views are different!

Understand the Data

Collect daily views for existing videos.

- What's wrong with day 0?
- YouTube has missing data
- YouTube data is often more than 2 days behind

Exploratory Analysis

- Graphing raw data
- Feature Engineering (i.e. log it)
- Check out R-Markdown output

How good are the Predictions?

Test the model with new videos:

- Collect day 0, 1 & 3 data
- Predict day 30 views
- Write it down
- Wait a month and check actual views



*Slides are available at
bit.ly/acflipppo-yt-video-pred*

Thank You!



Annie Flippo



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