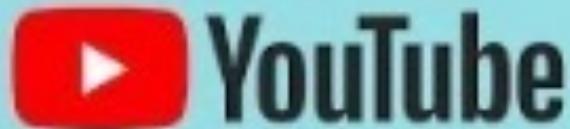


HOW POPULAR WILL THIS VIDEO BE ON YOUTUBE ?

Team : Noura Al-Otaibi, Miatha Al-Qahtani, Alaa Al-Ghamdi





TRENDING





Introduction

As Youtubers earn money through the advertising and bonus of their videos, increasing the popularity of their videos is a priority. This project aims to predict the behavior of the video that is going to be uploaded to YouTube. An equation is developed to manually classify all the videos into binary groups: non-popular and popular.



01

NUMPY

04

SCIPY

02

**MATPLOTLIB AND SEABORN
FOR PLOTTING**

05

SKLEARN

03

Pandas for data manipulation

06

WORDCLOUD



Exploratory Data Analysis



Data cleaning



Modeling and compare models

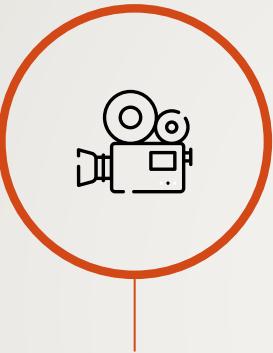


Statistical analysis



Preparing data to modeling





DATA SOURCE

Kaggle as an open-source.
we selected the trending videos of YouTube
from the United States and Canada, consisting
of 29089 unique videos.



DATASET

RECRDS: 81830
Columns: 17



- We created a new y for prediction by equation

$$Score = \frac{Comments}{Views} \times (Likes - 1.5 \times dislikes)$$

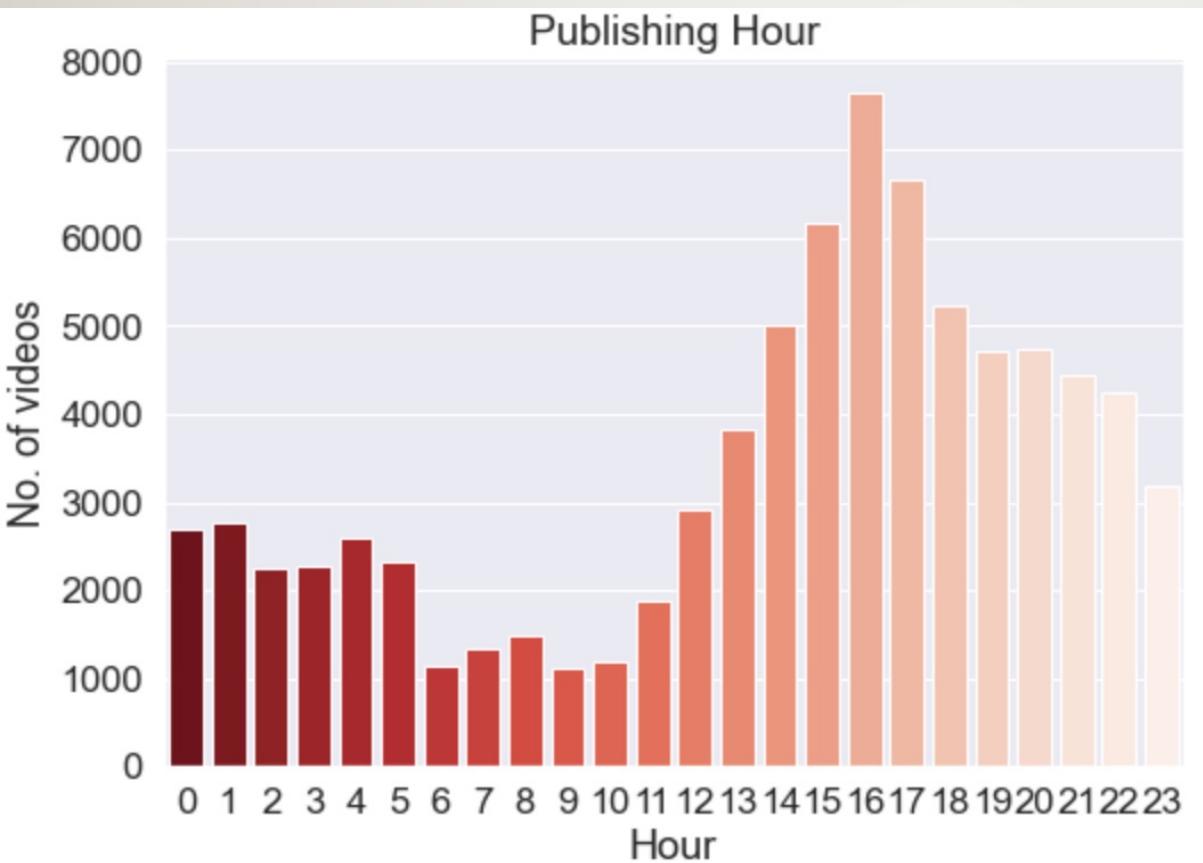
$$y = \begin{cases} 0, & Views < 100,000 \\ 1, & Views \geq 100,000 \quad Score < 0 \\ 2, & Views \geq 100,000 \quad 0 \leq Score < 300 \\ 3, & Views \geq 100,000 \quad Score \geq 300 \end{cases}$$



FEATURES ENGENDERING :

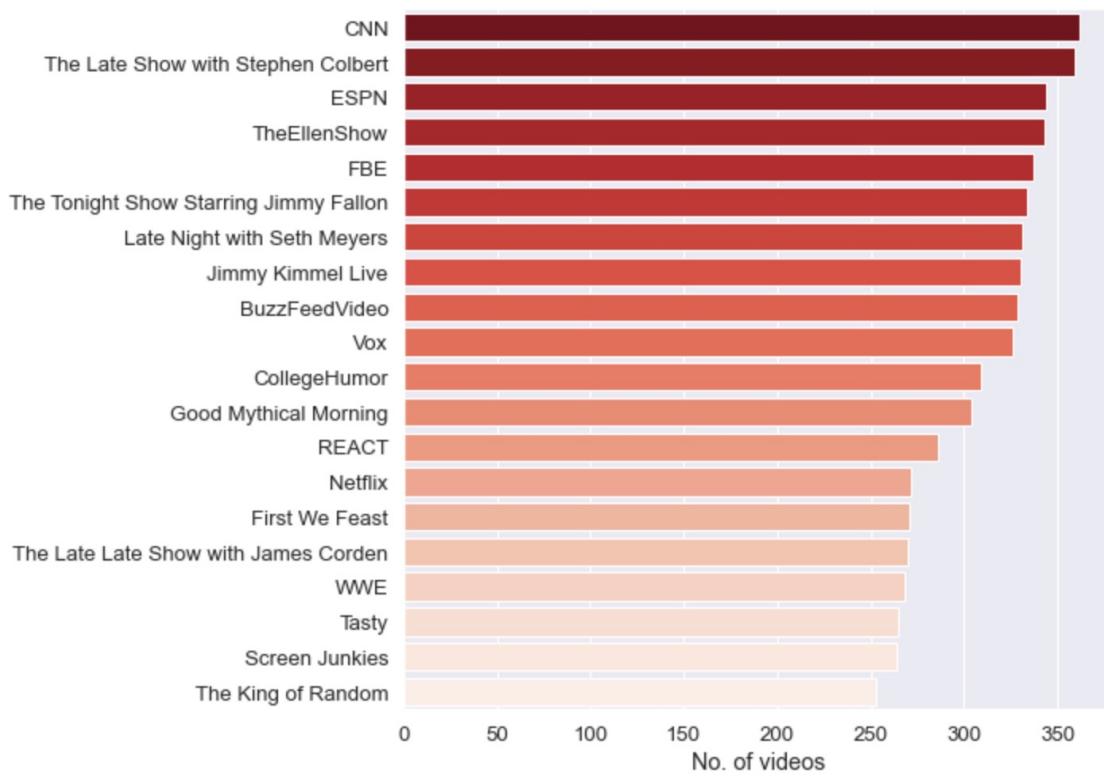
1. Score
2. Difference day between publish and trends
3. Tags count
4. Video Type





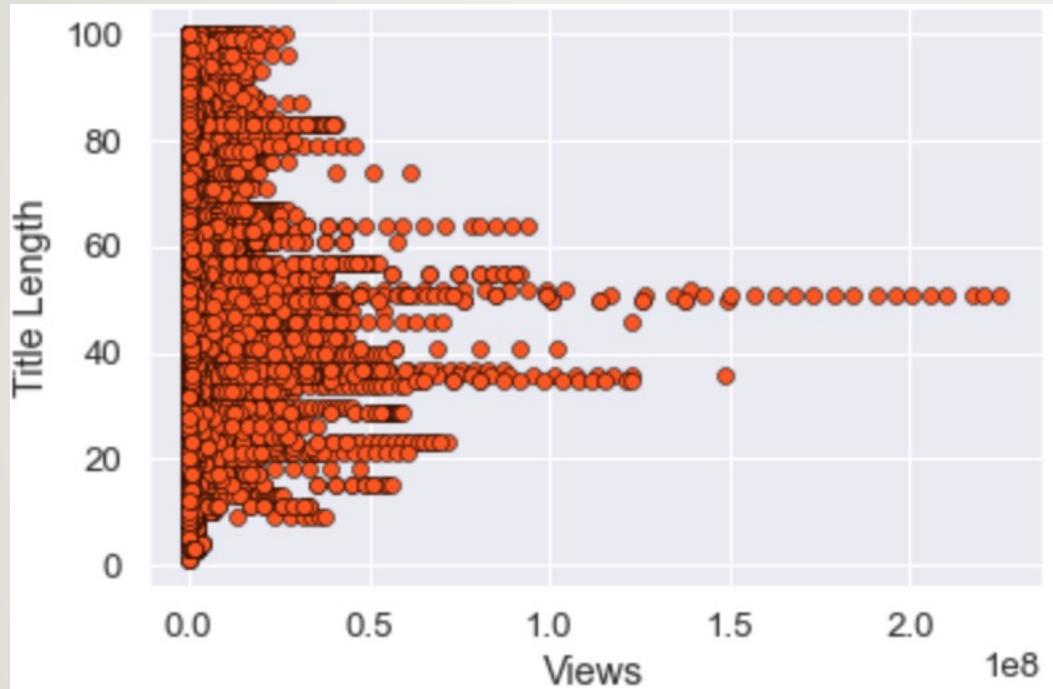
observation that number of videos published at 4 pm, 3 pm, 5 pm and 6 pm trend more than the number of videos uploaded 8 am, 7 am, 6 am.





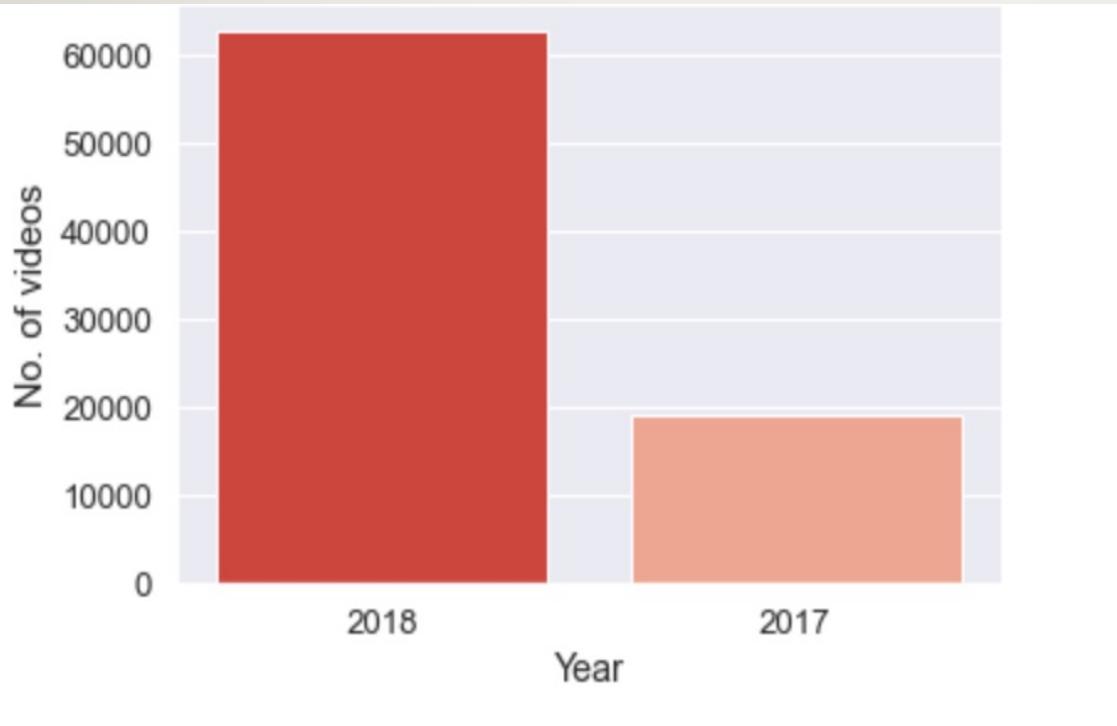
As we see the highest channels watched CNN, ESPN , The late show with Stephen.





plot shows videos that have 100,000,000 views and more have Title Length between 35 and 60 characters approximately.





We can see that the videos was collected in 2017 and 2018 with 77% of it in 2018 and 23% in 2017



Episode Trailer ft

Live Official First

Love Day Make Song Ep

Ball Secret Starcast Girl Teaser Prince John Kevin

Royal NFL Cast Girl Teaser Prince John Kevin

War Explained Top Girl Teaser Prince John Kevin

Donald Guy Break Stephen Girl Teaser Prince John Kevin

Real Cavaliers Take White Will TV ESPN Got School Talk Audio Award Play Music

Lebron Part Try Last Look Family People Audio Award Play Music

April Voice U Every January BTS Highlight Commercial World LaMovie Back Never Black Challenge

Open See Comment President Tour Made Inside Food HD Tutorial X Final Life

Voice Try Last Look Family People Audio Award Play Music

YouTube Everything Comment President Tour Made Inside Food HD Tutorial X Final Life

Everything Comment President Tour Made Inside Food HD Tutorial X Final Life

Battle Netflix Gets Show Kid Season Series December J Story Paul Fortnite Call REACT Wedding NBA March Smith Dog Theory Teaser Breaking Award Now Old Kardashian Moment

Infinity Hit View Joe Perfect Making Chris American Wrong Box Year Golden Man Drama Ep Face Prince Baby GIANT Test Lill John Goes

Watch James Honest One Bowl Chris Go Mom TB Super DIY iPhone Best King Avenger

Friend Big Car Win Film Reveal Christmas 2020

One Bowl Chris Go Mom TB Super DIY iPhone Best King Avenger

Big Car Win Film Reveal Christmas 2020

Trump Tried feat Year Golden Man Drama Ep Face Prince Baby GIANT Test Lill John Goes

React Wedding NBA March Smith Dog Theory Teaser Breaking Award Now Old Kardashian Moment

Golden Man Drama Ep Face Prince Baby GIANT Test Lill John Goes

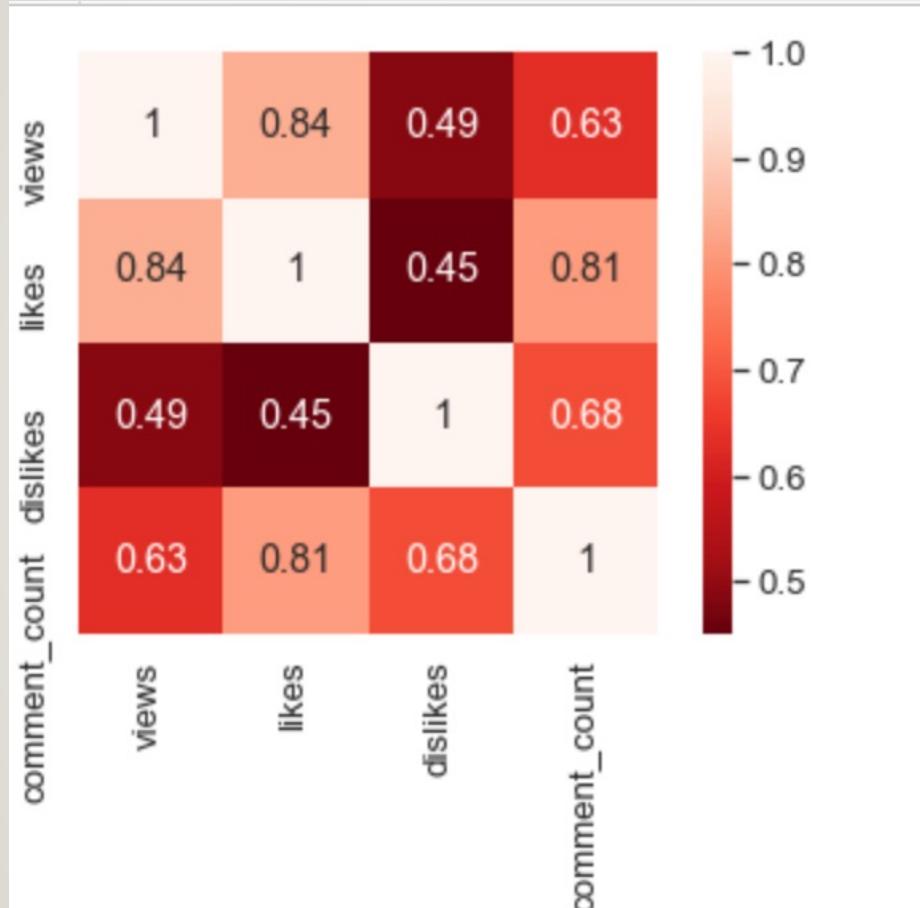
American Wrong Box Year Golden Man Drama Ep Face Prince Baby GIANT Test Lill John Goes

Chris Go Mom TB Super DIY iPhone Best King Avenger

Avenger

As we can see Trending videos contain words like Official, Trailer, Live, New, Challenge, HD etc. which helps attracting the viewer's attention.

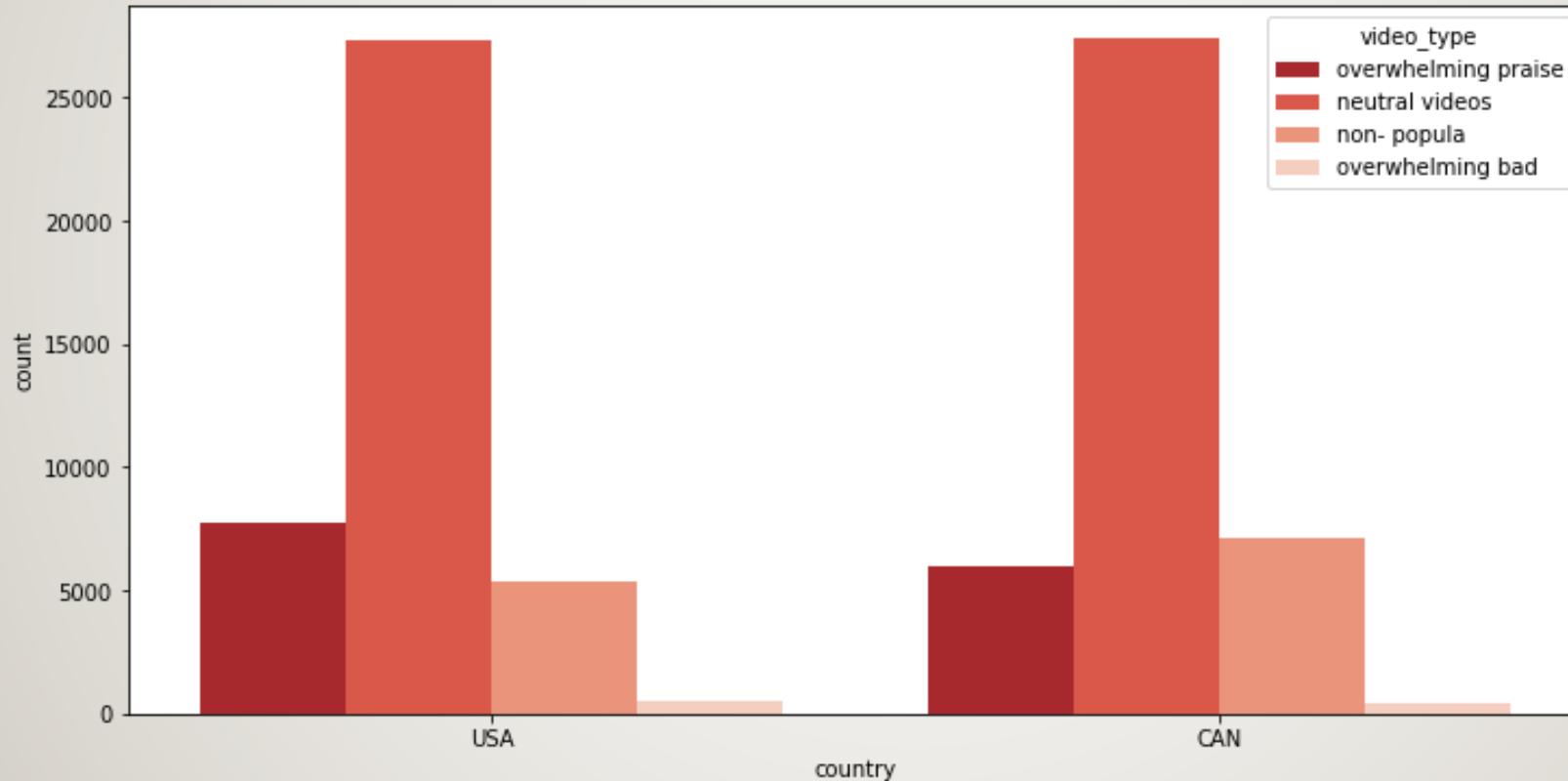




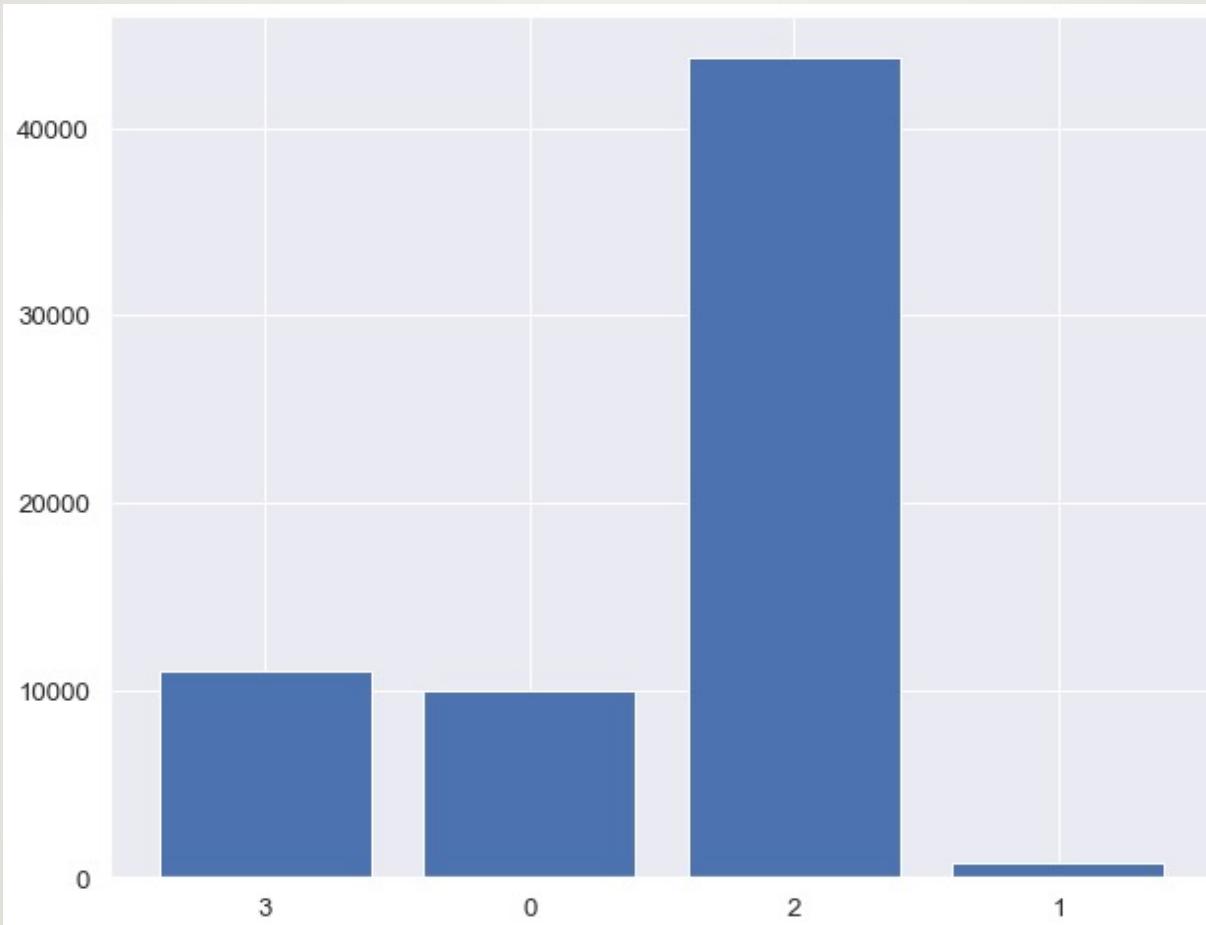
As we can see it is high correlation between Views and likes and likes and comment_count



As we see here the number of videos that become trending between the United States and Canada, the United States is higher in the emergence of trend



Imbalanced classes



FEATURES:

1. Views
2. Likes
3. Dislikes
4. Comment
5. Difference day between publish and trends
6. Tags



MODELS RESULTS

Recall_ score	Model name
0.993336	Random_forest
0.991258	Voting
0.989913	Bagging
0.935563	knn
0.851134	Decision_Tree
0.332625	logistic





- **We can help a YouTuber to make their video as a trending one by telling them what day what time and what category of videos they should upload**
- **We can say if a video becomes a trending one when most of the people like that video**

It's tell about audiences satisfaction





THANKS!
DO YOU HAVE ANY QUESTIONS?

