

Trending Youtube Views



- 2018 revenue is \$11.15 Billion
- 2 billion monthly users

Data



Trending YouTube Video Statistics

Daily statistics for trending YouTube videos



Mitchell J • updated 2 years ago (Version 115)

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Data

df_canada	40881 obs. of 16 variables	
df_france	40724 obs. of 16 variables	
df_germany	40840 obs. of 16 variables	
df_india	37352 obs. of 16 variables	
df_japan	20523 obs. of 16 variables	
df_korea	34567 obs. of 16 variables	
df_mexico	40451 obs. of 16 variables	
df_russia	40739 obs. of 16 variables	
df_uk	38916 obs. of 16 variables	
df_us	40949 obs. of 16 variables	

Filter							
video_id	trending_date	title	channel_title	category_id	publish_time	tags	
1 2kyS6SvSYSE	17.14.11	WE WANT TO TALK ABOUT OUR MARRIAGE	CaseyNeistat	22	2017-11-13T17:13:01.000Z	SHANtell martin	
2 1ZAPwfrtAFY	17.14.11	The Trump Presidency: Last Week Tonight with John ...	LastWeekTonight	24	2017-11-13T07:30:00.000Z	last week tonight tru	
3 5qpjK5DgCt4	17.14.11	Racist Superman Rudy Mancuso, King Bach & Lele Po...	Rudy Mancuso	23	2017-11-12T19:05:24.000Z	racist superman rud	
4 puqaWrEC7tY	17.14.11	Nickelback Lyrics: Real or Fake?	Good Mythical Morning	24	2017-11-13T11:00:04.000Z	rhett and link gmm	
5 d380meD0W0M	17.14.11	I Dare You: GOING BALD!?	nigahiga	24	2017-11-12T18:01:41.000Z	ryan higa higatv nig	
6 gHZ1Qz0KiKM	17.14.11	2 Weeks with iPhone X	ijustine	28	2017-11-13T19:07:23.000Z	ijustine week with iF	
7 39idVpFF7NQ	17.14.11	Roy Moore & Jeff Sessions Cold Open – SNL	Saturday Night Live	24	2017-11-12T05:37:17.000Z	SNL Saturday Night	
8 nc99ccSXST0	17.14.11	5 Ice Cream Gadgets put to the Test	CrazyRussianHacker	28	2017-11-12T21:50:37.000Z	5 Ice Cream Gadget	
9 jr9QtXwC9vc	17.14.11	The Greatest Showman Official Trailer 2 [HD] 20th ...	20th Century Fox	1	2017-11-13T14:00:23.000Z	Trailer Hugh Jackm	
10 TUmyygCMMGA	17.14.11	Why the rise of the robots won't mean the end of work	Vox	25	2017-11-13T13:45:16.000Z	vox.com vox expla	
11 9wRQljFNDW8	17.14.11	Dion Lewis' 103-Yd Kick Return TD vs. Denver! Can'...	NFL	17	2017-11-13T02:05:26.000Z	NFL Football offens	
12 VifQJit6A0	17.14.11	(SPOILERS) 'Shiva Saves the Day' Talked About Scene E...	amc	24	2017-11-13T03:00:00.000Z	The Walking Dead s	
13 5E4ZBSInqUU	17.14.11	Marshmello – Blocks (Official Music Video)	marshmello	10	2017-11-13T17:00:00.000Z	marshmello blocks	
14 GgVmn66oK_A	17.14.11	Which Countries Are About To Collapse?	NowThis World	25	2017-11-12T14:00:00.000Z	nowthis nowthis we	
15 TaTleo4cOs8	17.14.11	SHOPPING FOR NEW FISH!!!	The king of DIY	15	2017-11-12T18:30:01.000Z	shopping for new fis	
16 kgaO45SyaO4	17.14.11	The New SpotMini	BostonDynamics	28	2017-11-13T20:09:58.000Z	Robots Boston Dyn	
17 ZAQs-ctOqXQ	17.14.11	One Change That Would Make Pacific Rim a Classic	Cracked	23	2017-11-12T17:00:05.000Z	pacific rim pacific r	
18 YVfyYrEmzgM	17.14.11	How does your body know you're full? – Hilary Coller	TED-Ed	27	2017-11-13T16:00:07.000Z	TED TED-Ed TED Ed	
19 eNSN6qet1kE	17.14.11	HomeMade Electric Airplane	PeterSripol	28	2017-11-13T15:30:17.000Z	ultralight airplane h	
20 B5HORANmzHw	17.14.11	Founding An Inbreeding-Free Space Colony	SciShow	27	2017-11-12T22:00:01.000Z	SciShow science Ha	
21 vU14JY3x81A	17.14.11	How Can You Control Your Dreams?	Life Noggin	27	2017-11-13T14:00:03.000Z	life noggin life nog	
22 39idVpFF7NQ	17.14.11	Roy Moore & Jeff Sessions Cold Open – SNL	Saturday Night Live	24	2017-11-12T05:37:17.000Z	SNL Saturday Night	

Showing 1 to 22 of 40,949 entries, 16 total columns

Field Name	Table
Abc Video Id	USvideos.csv
Abc Trending Date	USvideos.csv
Abc Title	USvideos.csv
Abc Channel Title	USvideos.csv
Abc Category Id	USvideos.csv
Abc Publish Time	USvideos.csv
Abc Tags	USvideos.csv
Abc Views	USvideos.csv
# Likes	USvideos.csv
# Dislikes	USvideos.csv
# Comment Count	USvideos.csv
Abc Thumbnail Link	USvideos.csv
Abc Comments Disabled	USvideos.csv
Abc Ratings Disabled	USvideos.csv
Abc Video Error Or Removed	USvideos.csv
Abc Description	USvideos.csv

Some Data Cleaning Necessary

- Tags needed to be separated
- Category ID is a numerical value
- Video Error or Removed?
- Converted Channel Name to Factor
- Calculated New Variables:
 1. Comment Count
 2. Tag Count
 3. Video Title Count

Video Error or Removed

	video_id	trending_date	title	channel_title	category_id	publish_time	tags	views	likes	dislikes	comment_count
2204	RK_B4Ez4_5Q	17.25.11	Verizon 360 Live: The Macy's Thanksgiving Day Parade	Verizon	24	2017-11-23T19:51:07.000Z	live stream 360 video fun videos for kids vzinside360...	2618344	45197	2315	3332
15500	kZete48ZtsY	18.01.02	Deleted video	Midnight Video	1	2018-01-29T13:00:00.000Z	horror horror short short short film mystery date sca...	60262	4804	122	736
15756	kZete48ZtsY	18.02.02	Deleted video	DaHoopSpot Productions	17	2017-12-16T04:29:25.000Z	[none]	2611	8	12	5
15981	kZete48ZtsY	18.03.02	Deleted video	DaHoopSpot Productions	17	2017-12-16T04:29:25.000Z	[none]	2620	8	12	5
30355	q8v9MvManKE	18.23.04	Earth Day 2018 Google Doodle	googledoodles	1	2018-04-21T15:00:50.000Z	[none]	397920	11932	348	2845
30572	q8v9MvManKE	18.24.04	Earth Day 2018 Google Doodle	googledoodles	1	2018-04-21T15:00:50.000Z	[none]	168135	4399	201	2598
30786	q8v9MvManKE	18.25.04	Earth Day 2018 Google Doodle	googledoodles	1	2018-04-21T15:00:50.000Z	[none]	218621	5822	287	3543
30998	q8v9MvManKE	18.26.04	Earth Day 2018 Google Doodle	googledoodles	1	2018-04-21T15:00:50.000Z	[none]	875901	41515	1353	2151
31213	q8v9MvManKE	18.27.04	Earth Day 2018 Google Doodle	googledoodles	1	2018-04-21T15:00:50.000Z	[none]	3930335	87892	1854	0
31430	q8v9MvManKE	18.28.04	Earth Day 2018 Google Doodle	googledoodles	1	2018-04-21T15:00:50.000Z	[none]	4175576	91606	1951	0
31636	q8v9MvManKE	18.29.04	Earth Day 2018 Google Doodle	googledoodles	1	2018-04-21T15:00:50.000Z	[none]	4399506	95002	2020	0
31856	q8v9MvManKE	18.30.04	Earth Day 2018 Google Doodle	googledoodles	1	2018-04-21T15:00:50.000Z	[none]	1157631	47206	1649	2380
32069	q8v9MvManKE	18.01.05	Earth Day 2018 Google Doodle	googledoodles	1	2018-04-21T15:00:50.000Z	[none]	1184518	47657	1678	2405
32285	q8v9MvManKE	18.02.05	Earth Day 2018 Google Doodle	googledoodles	1	2018-04-21T15:00:50.000Z	[none]	1204907	48074	1696	2410
32499	q8v9MvManKE	18.03.05	Earth Day 2018 Google Doodle	googledoodles	1	2018-04-21T15:00:50.000Z	[none]	11979805	408461	6516	17964
32707	q8v9MvManKE	18.04.05	Earth Day 2018 Google Doodle	googledoodles	1	2018-04-21T15:00:50.000Z	[none]	1233955	48690	1716	2453
32759	1Aoc-cd9eYs	18.05.05	Cobra Kai Ep 2 - Strike First - The Karate Kid Saga Co...	Cobra Kai	24	2018-05-02T16:02:35.000Z	Cobra Kai Karate Kid YouTube Red Original Series Yo...	833027	28696	3766	5033
32972	1Aoc-cd9eYs	18.06.05	Cobra Kai Ep 2 - Strike First - The Karate Kid Saga Co...	Cobra Kai	24	2018-05-02T16:02:35.000Z	Cobra Kai Karate Kid YouTube Red Original Series Yo...	641055	4800	177	1223
33188	1Aoc-cd9eYs	18.07.05	Cobra Kai Ep 2 - Strike First - The Karate Kid Saga Co...	Cobra Kai	24	2018-05-02T16:02:35.000Z	Cobra Kai Karate Kid YouTube Red Original Series Yo...	672609	4916	197	1269
33415	1Aoc-cd9eYs	18.08.05	Cobra Kai Ep 2 - Strike First - The Karate Kid Saga Co...	Cobra Kai	24	2018-05-02T16:02:35.000Z	Cobra Kai Karate Kid YouTube Red Original Series Yo...	412323	25441	208	952
33621	1Aoc-cd9eYs	18.09.05	Cobra Kai Ep 2 - Strike First - The Karate Kid Saga Co...	Cobra Kai	24	2018-05-02T16:02:35.000Z	Cobra Kai Karate Kid YouTube Red Original Series Yo...	251857	6623	231	1120
33838	1Aoc-cd9eYs	18.10.05	Cobra Kai Ep 2 - Strike First - The Karate Kid Saga Co...	Cobra Kai	24	2018-05-02T16:02:35.000Z	Cobra Kai Karate Kid YouTube Red Original Series Yo...	629055	30695	277	1033
34595	1Aoc-cd9eYs	18.14.05	Cobra Kai Ep 2 - Strike First - The Karate Kid Saga Co...	Cobra Kai	24	2018-05-02T16:02:35.000Z	Cobra Kai Karate Kid YouTube Red Original Series Yo...	1062499	32276	4594	5547

```

#adds rest of url to the id such that we can click and view video
x = 'https://www.youtube.com/watch?v='
us_urls = [ x + url for url in df_us_list]
us_urls[0]

'https://www.youtube.com/watch?v=2kyS6SvSYSE'

video_duration = []

#if video unable to load, then assume 0 seconds and add to new list
#takes a long time to run!
for url in us_urls:
    try:
        video = pafy.new(url).length
        video_duration.append(video)
        #df_us['duration'] = video_duration
        print(video, ',', len(video_duration))
    except:
        video_duration.append(0)
        #df_us['duration'] = video_duration
        print(len(video_duration))

...

#place all video durations into the dataframe as a new column
df_us['videoDuration'] = video_duration

...

#export dataframe as csv
df_us.to_csv('USnvideos.csv', index=False)

df_us.tail()

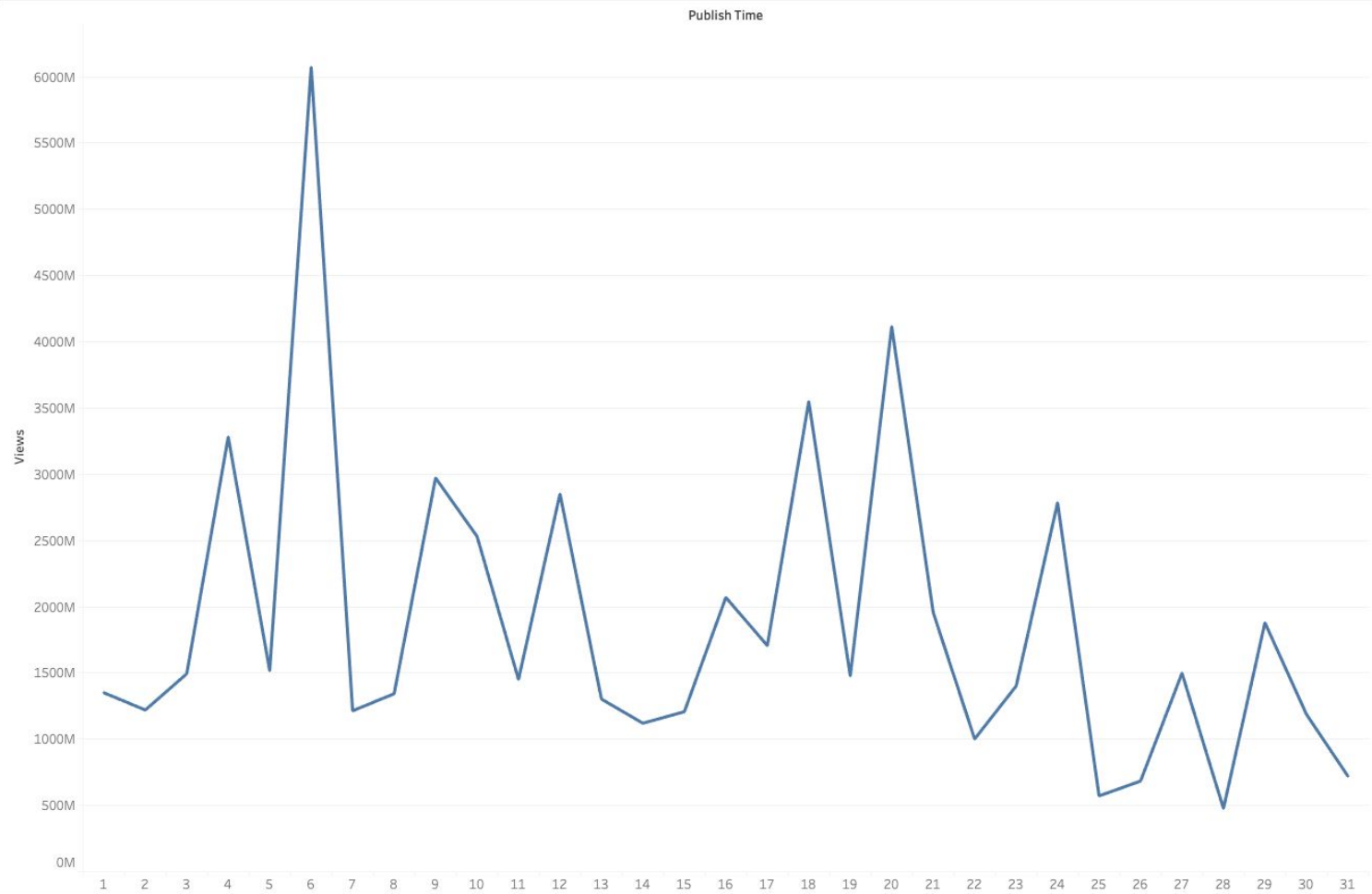
```

- Found and Removed videos that were taken down and had a duration of 0 seconds after adding the video Duration from this python code!
- Image Links became unresponsive.. So could not use.

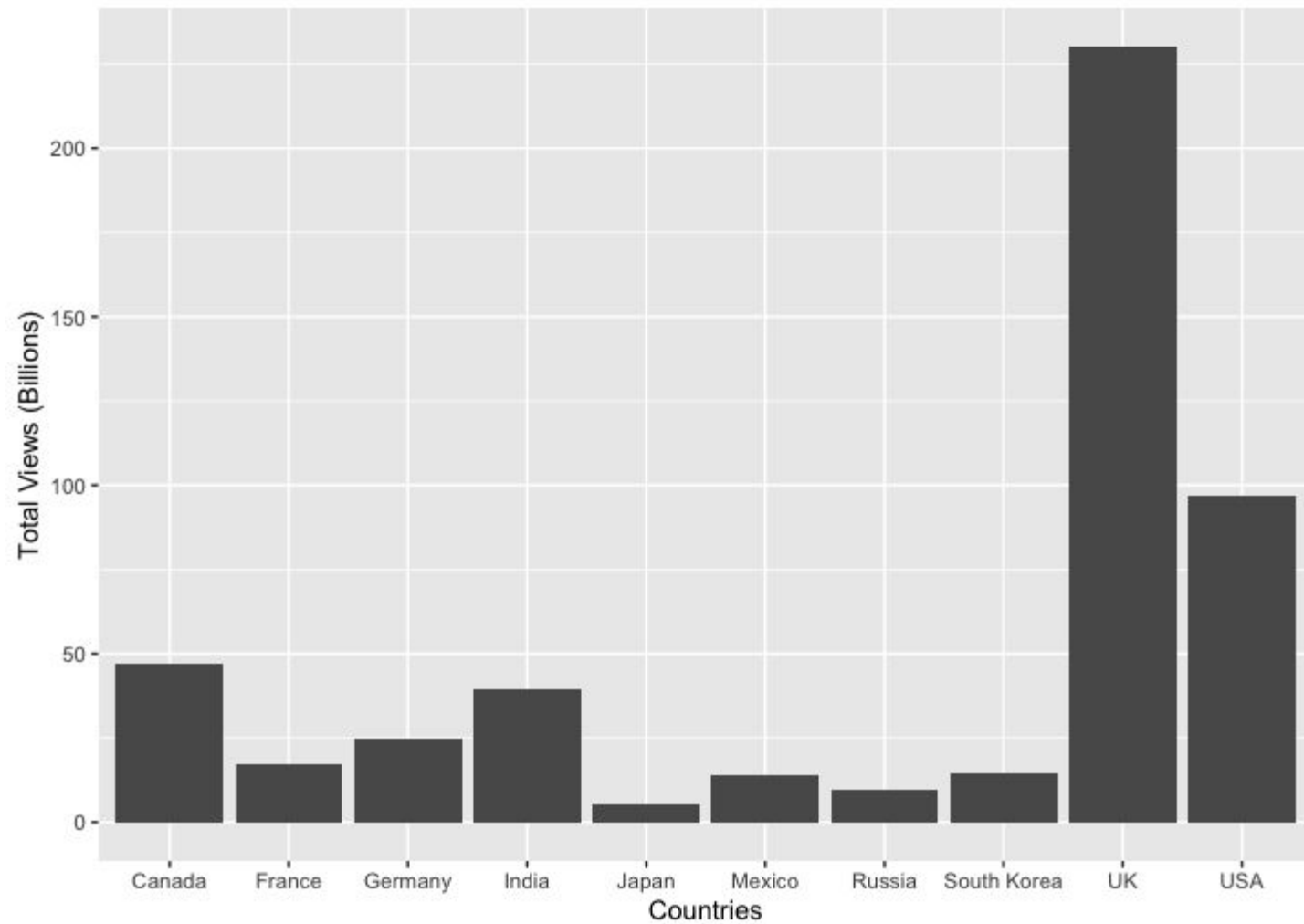
Exploratory Data Analysis



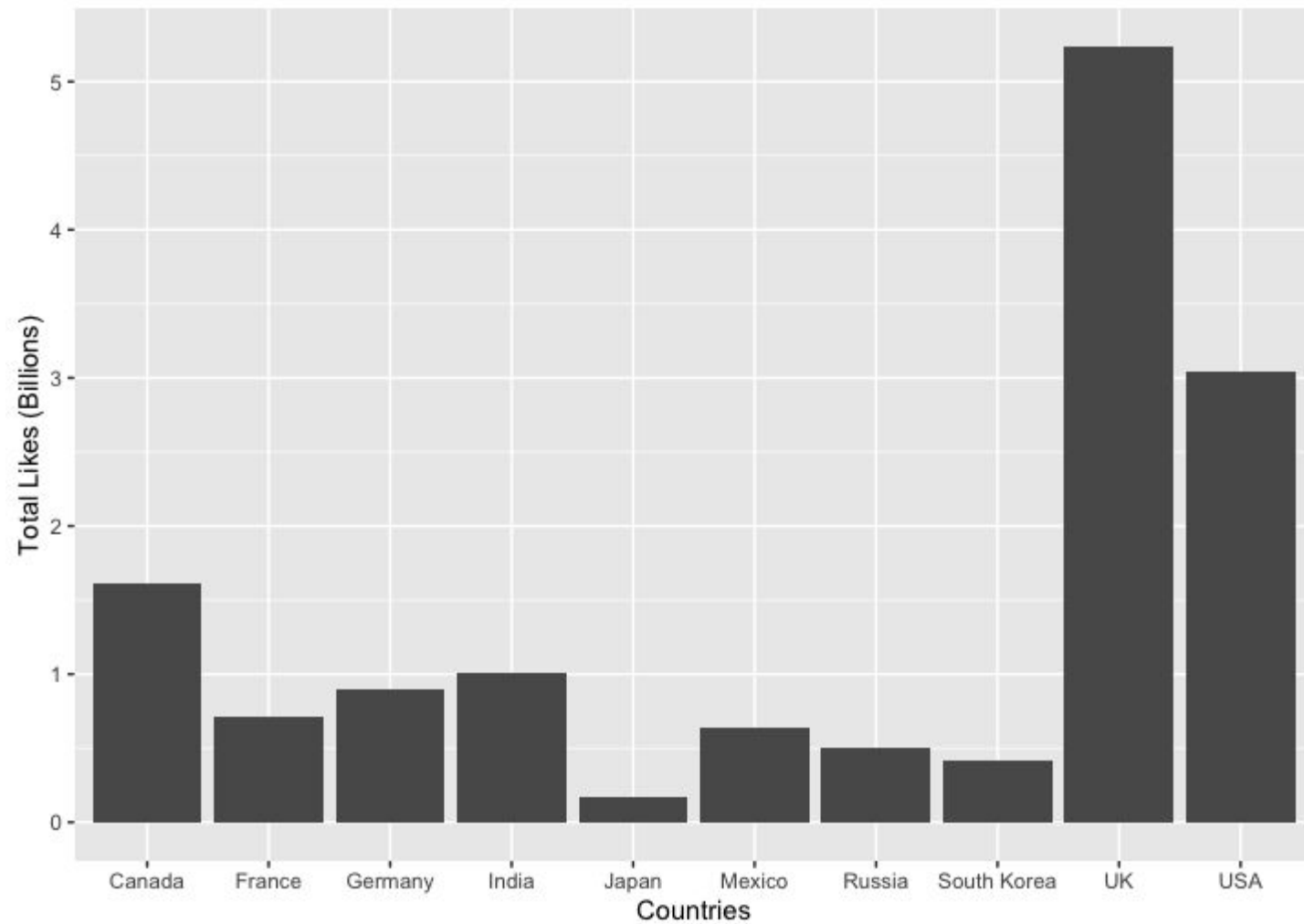
Views by Days in a month



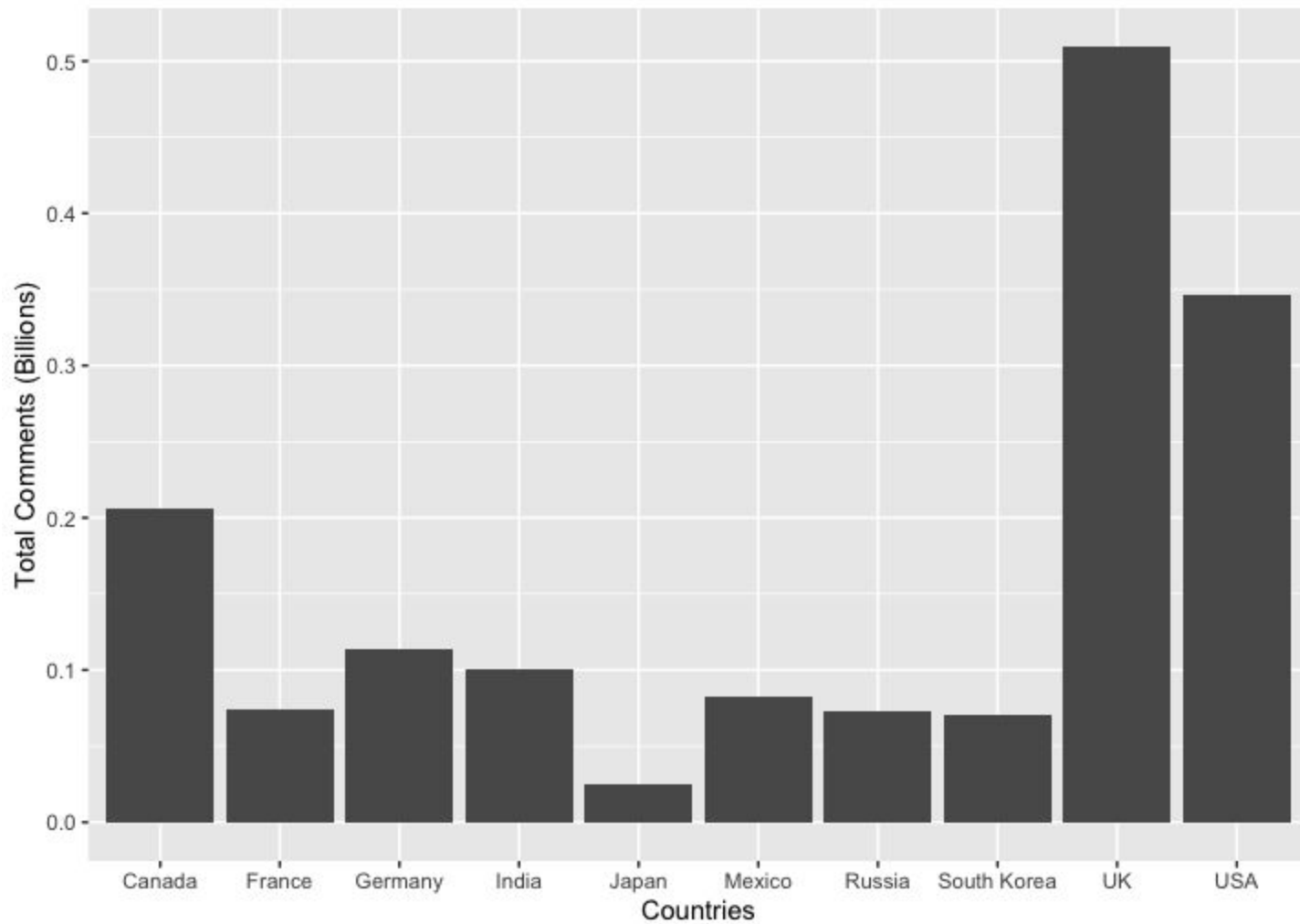
Total Trending Views Per Country



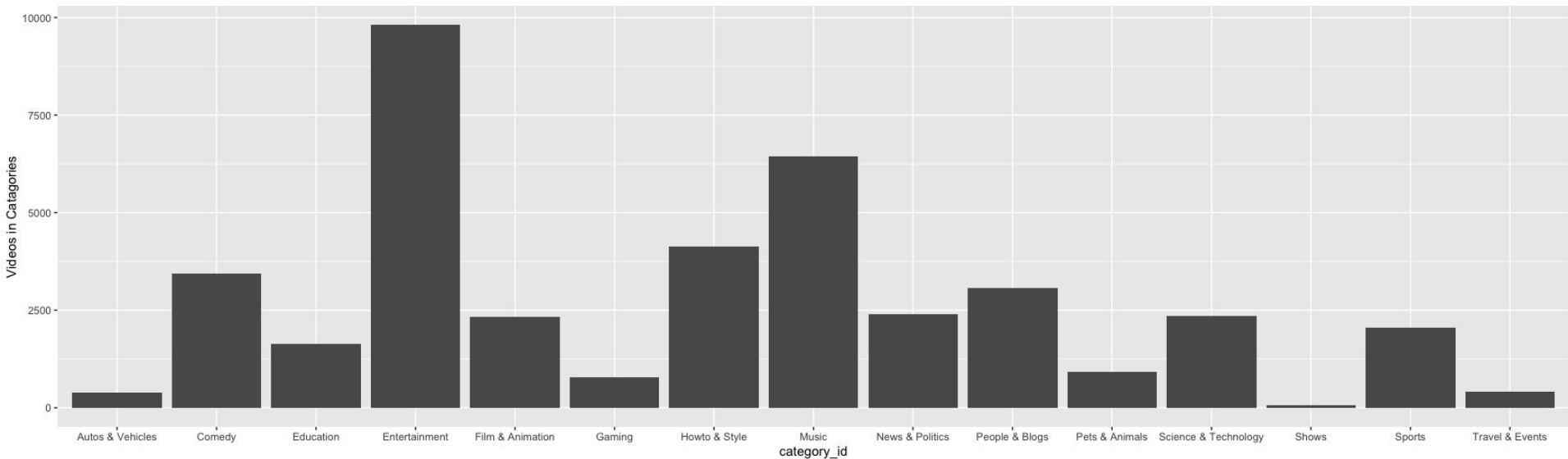
Total Trending Likes Per Country



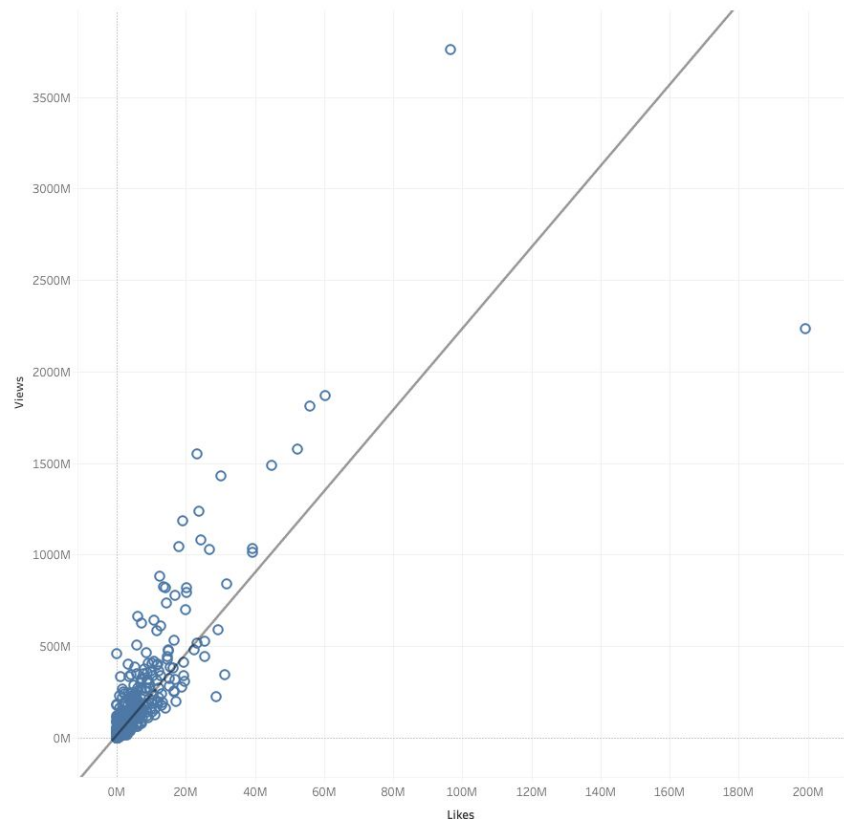
Total Comments Per Country



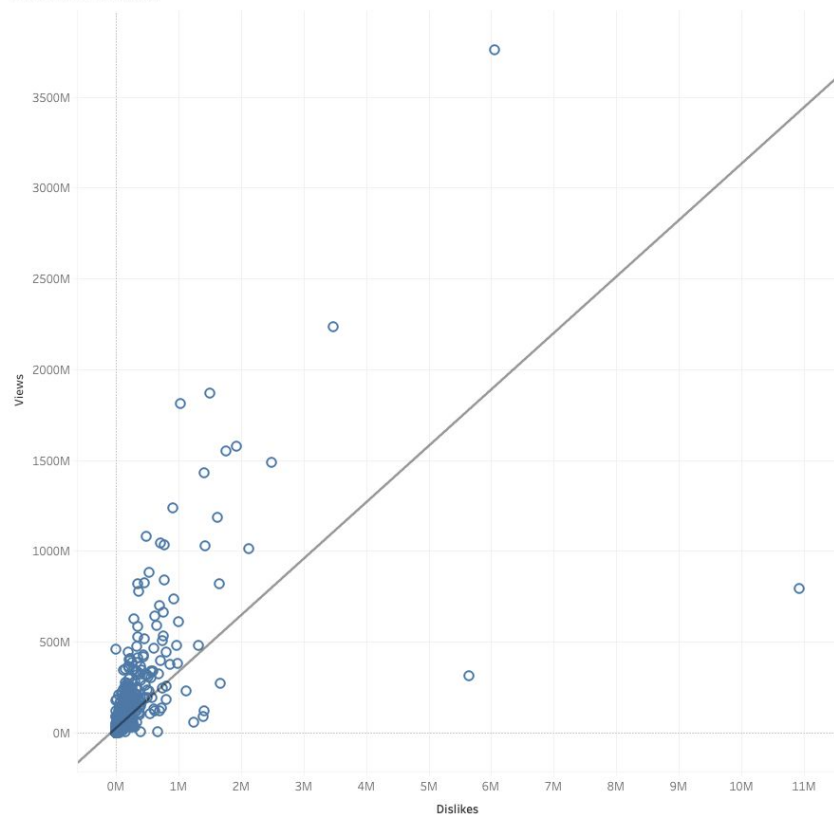
Categories for USA



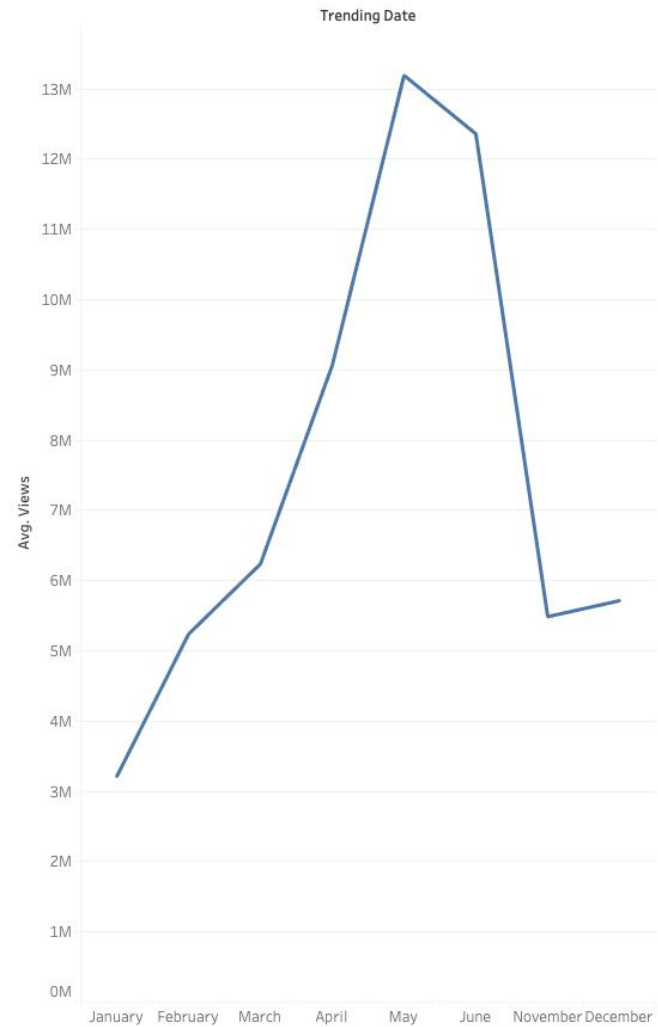
Views vs Likes



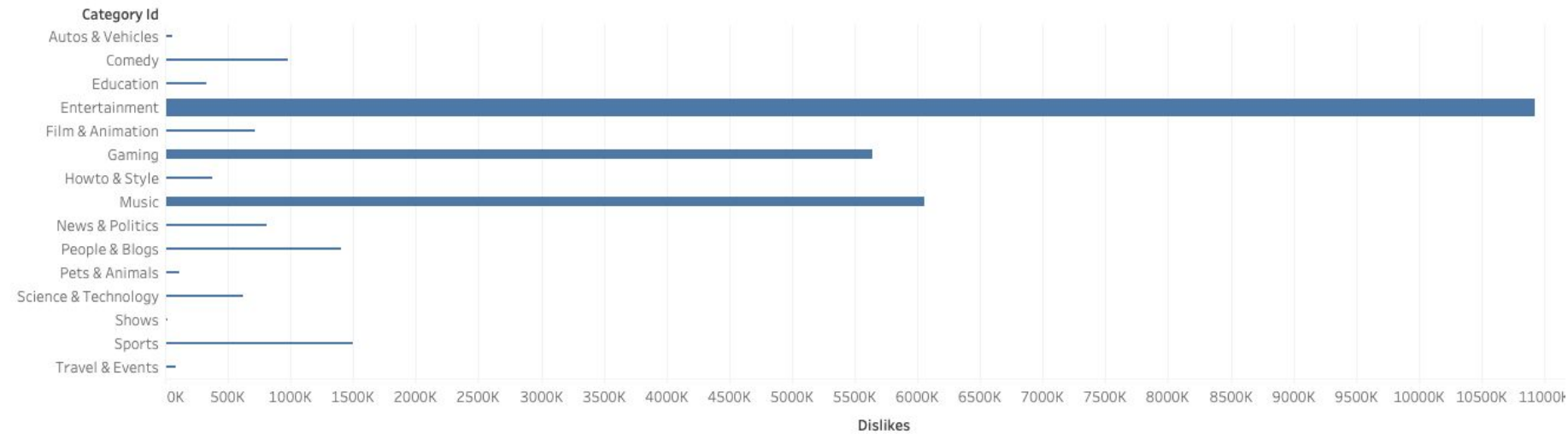
Views vs Dislikes



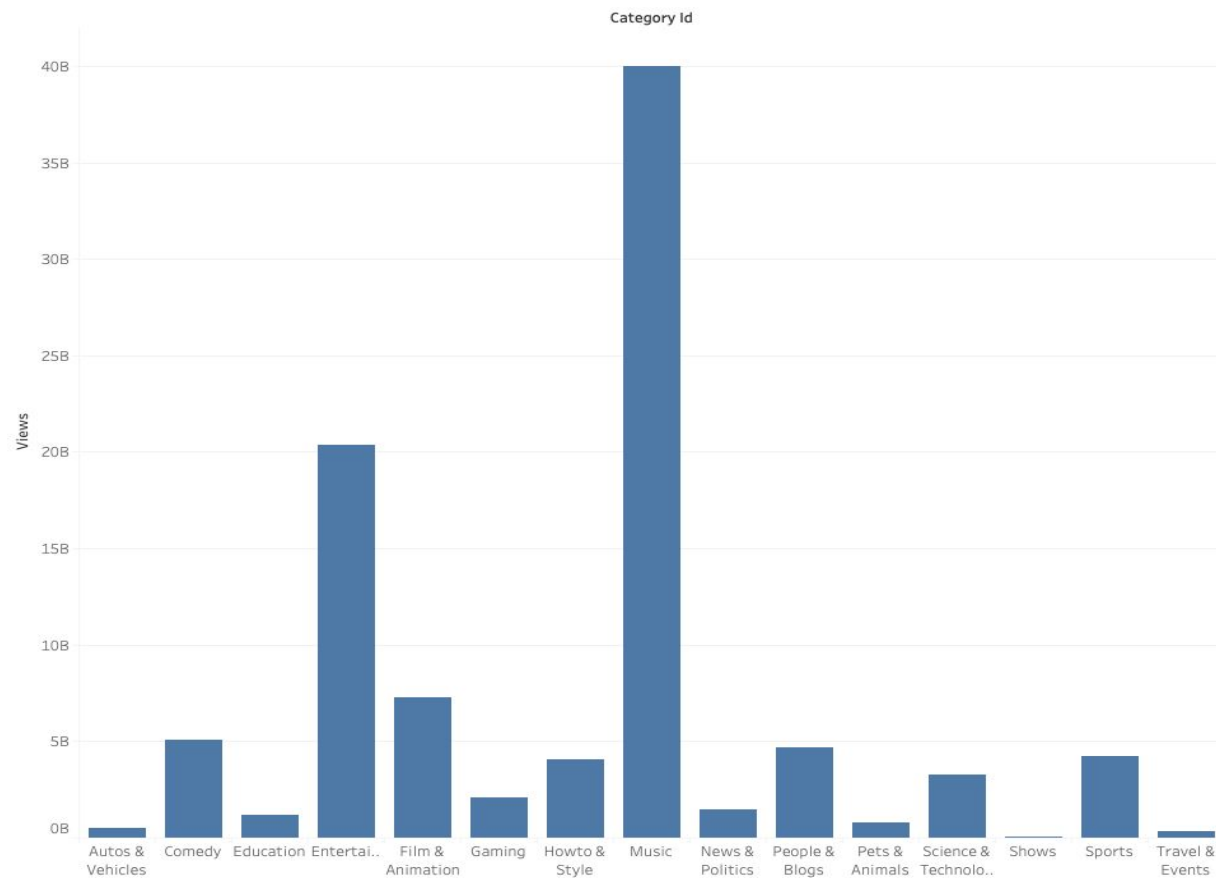
Average Trending View in a Year (USA)

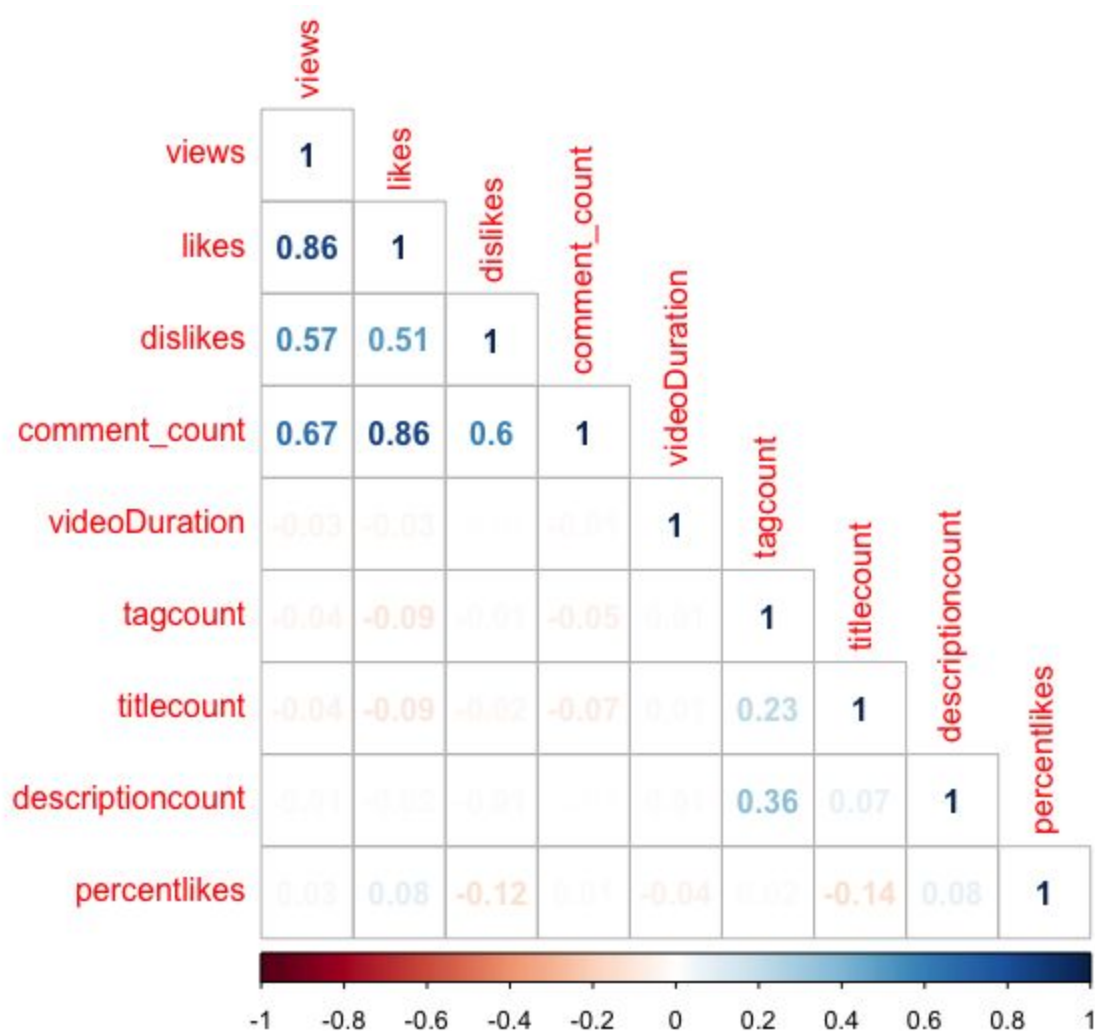


Catagory vs Dislikes



Catagories By Views





Predictions



Just using numerical variables

Call:

```
lm(formula = views ~ ., data = train)
```

Residuals:

Min	1Q	Median	3Q	Max
-46458763	-590769	-141687	258009	86859613

Coefficients:

	Estimate	Std. Error	t value	Pr(> t)	
(Intercept)	-5.444e+05	6.081e+04	-8.953	< 2e-16	***
likes	3.449e+01	1.682e-01	204.965	< 2e-16	***
dislikes	8.583e+01	1.015e+00	84.545	< 2e-16	***
comment_count	-8.921e+01	1.208e+00	-73.821	< 2e-16	***
videoDuration	-3.017e+01	1.439e+01	-2.097	0.03604	*
tagcount	2.362e+03	1.818e+02	12.994	< 2e-16	***
titlecount	1.102e+04	1.307e+03	8.432	< 2e-16	***
descriptioncount	-9.756e+01	3.244e+01	-3.007	0.00264	**

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

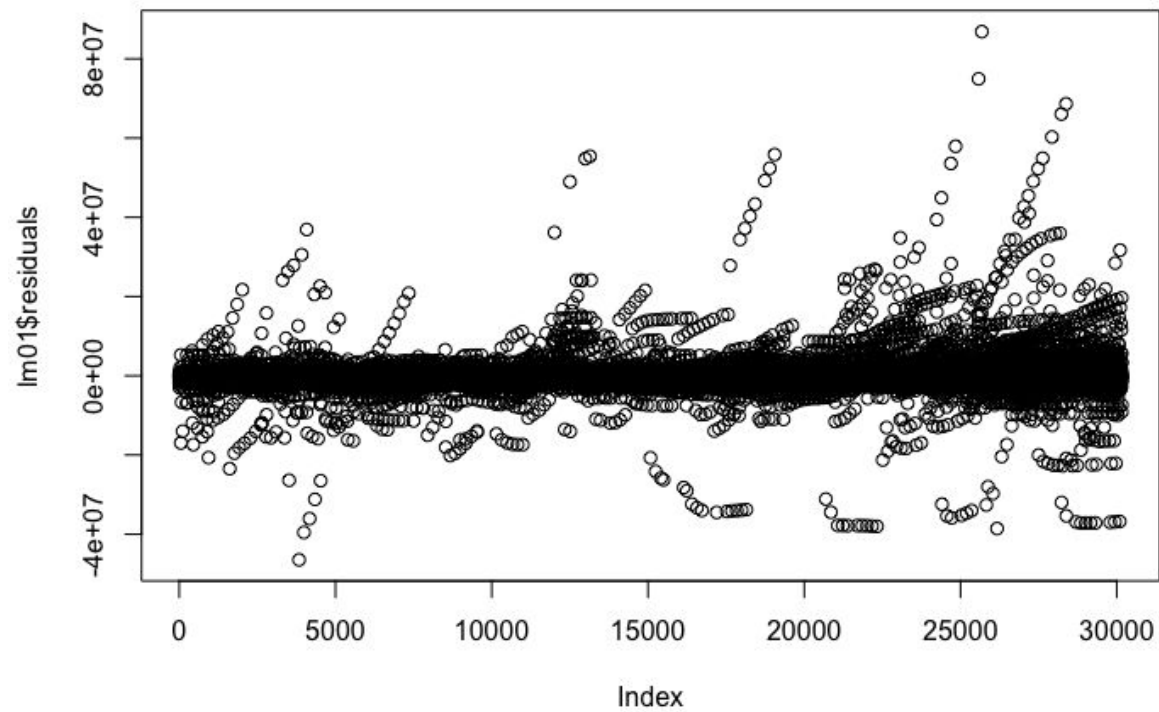
Residual standard error: 3423000 on 30155 degrees of freedom

Multiple R-squared: 0.7897, Adjusted R-squared: 0.7897

F-statistic: 1.618e+04 on 7 and 30155 DF, p-value: < 2.2e-16

> |

```
> mean(lm01$residuals)
[1] -7.82881e-10
> |
```



Some Thoughts:

- CLDR to detect foreign language and check correlation with views and country package was removed in R
- Comments are not too important in determining Views. They Can be disabled! Although we may want to leave them enabled to receive insight into planning future videos.

In Conclusion.

1. Most significant variables for predicting views are the number of likes to dislikes followed by number of wordy comments left on videos.
2. The longer a video, the lower the number of views.
3. Including more tags may be beneficial.
4. People tend to find entertainment Categories as Trending.