



YouTube **Trending Video** **Analysis**

Final Presentation - Group 8

Our Team



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01 Introduction

Our team is dedicated to developing a **comprehensive dashboard** that analyzes the **trending YouTube videos** from the **U.S. region**. The analysis will cover various factors and attributes that potentially affect the popularity of a YouTube content creator. People like **marketing** analysts, **business** analysts, and **influencers** can use our analysis as references to assist their decision-making.

Data Info



Source

Kaggle



Owner

Rishav Sharma



Size

Number of Rows



Data

Number of
Datapoints

Nov

Daily

163K

5.6M

02

Data Explore and Hashtag Analysis

Speaker: Yilei Ge



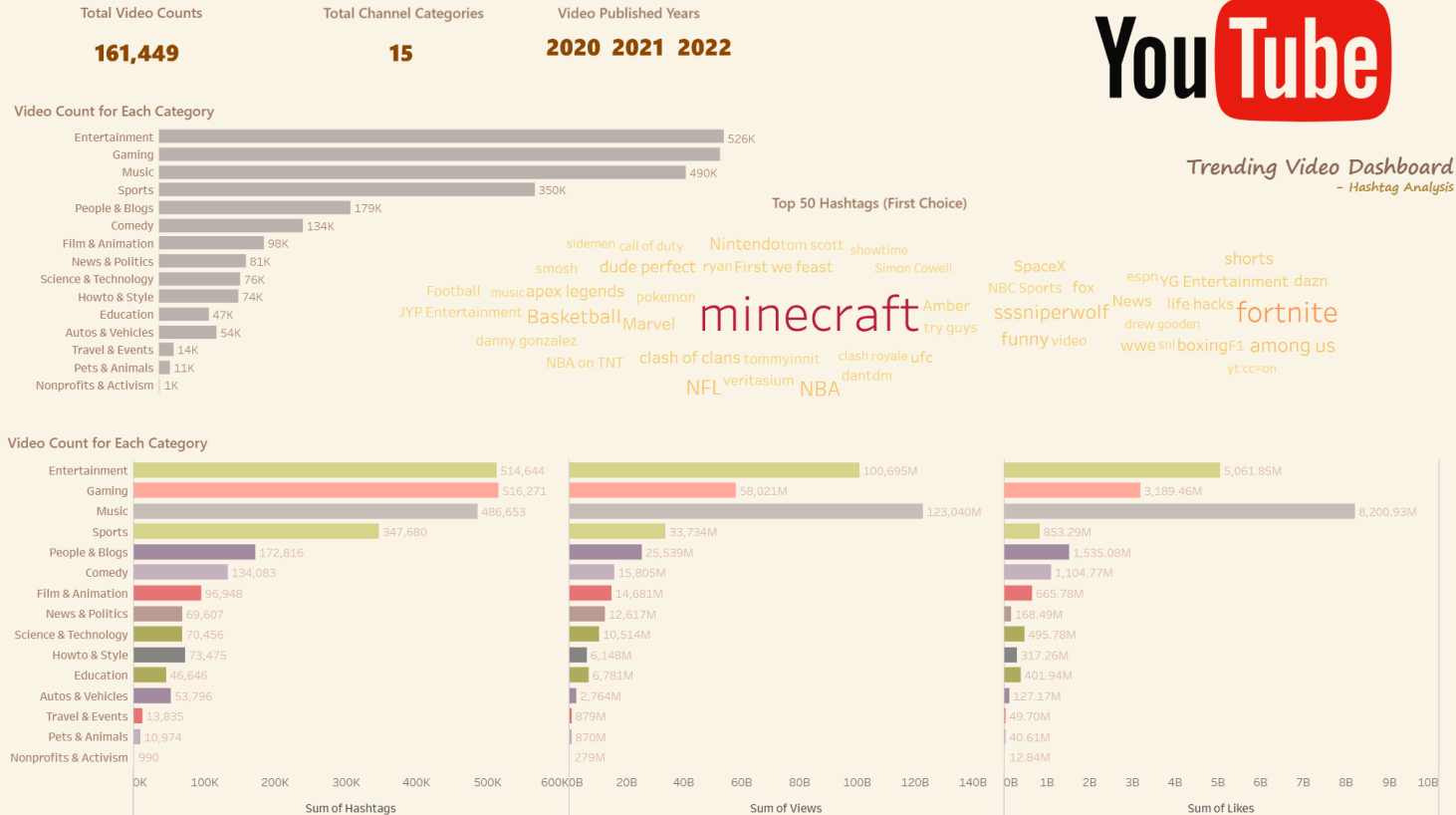
Motivation

Finding the **correlation** between hashtags and other relevant attributes.

Hypothesis

We assume **more hashtags** can help the videos to reach more customers and potentially **increase the “views” and “likes”**.

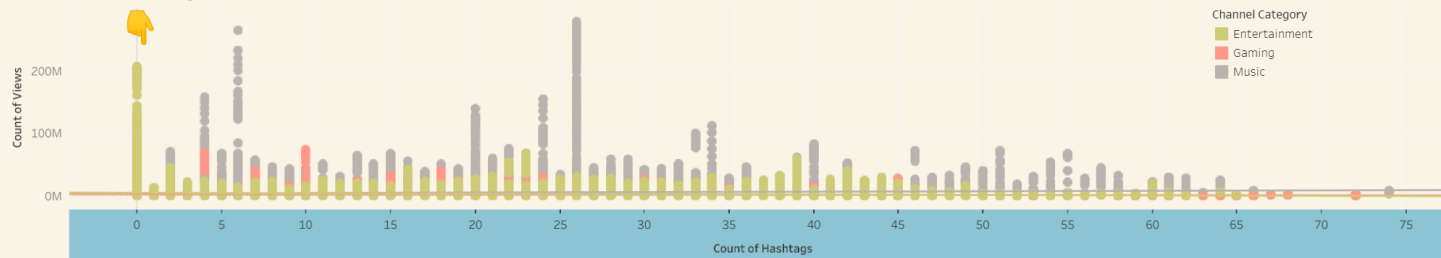
VizSlides FREE for Tableau Public



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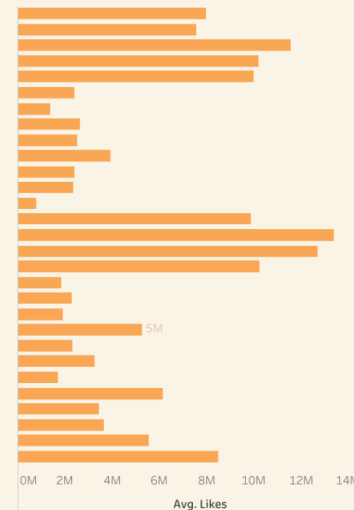
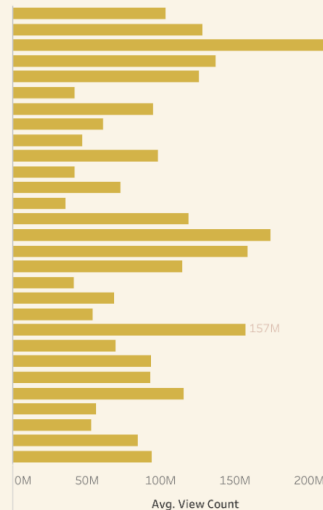
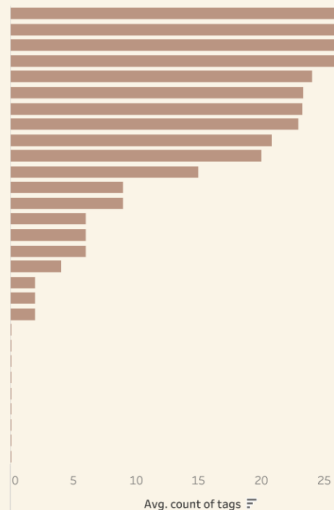


Correlation Between Hashtags vs Views



Top 30 Videos by View Counts by Category

BLACKPINK - "Lovesick Girls" M/V	Music
BLACKPINK - "Shut Down" M/V	Music
BLACKPINK - "Pink Venom" M/V	Music
BLACKPINK - "Ice Cream" (with Selena Gomez)	Music
LISA - "LALISA" M/V	Music
Justin Bieber - Holy ft. Chance The Rapper	Music
Watch the uncensored moment Will Smith s...	News & Politics
SPIDER-MAN: NO WAY HOME - Official Teas...	Entertainment
SPIDER-MAN: NO WAY HOME - Official Trail...	Entertainment
Adele - Easy On Me (Official Video)	Music
Bad Bunny - Yonaguni (Video Official)	Music
My hidden talent #shorts	Comedy
India claim stunning series win, end Austral...	Sports
BTS (방탄소년단) "Life Goes On" Offici...	Music
BTS (방탄소년단) "Dynamite" Offici...	Music
BTS (방탄소년단) "Butter" Official MV	Music
BTS (방탄소년단) "Permission to Danc...	Music
Marvel Studios' Doctor Strange in the Multi...	Entertainment
Dr. Dre, Snoop Dogg, Eminem, Mary J. Blige...	Sports
Dr. Dre, Snoop Dogg, Eminem, Mary J. Blige...	Sports
Turn into orbeez - Tutorial #Shorts	Entertainment
Turn into egg - Tutorial #Shorts	Entertainment
She is foxy but not enough #Shorts	Entertainment
MvRyhan Funny videos #tiktok #Shorts	Entertainment
jai shree ram ॐ's #shorts #ashortaday	Education
I Built Willy Wonka's Chocolate Factory!	Entertainment
Dice Stacks from \$1 to \$100	Sports
Crazy #alluarjun #painting #shorts #viral #...	Film & Animation
\$456,000 Squid Game In Real Life!	Entertainment



Result

1. Using hashtags properly can be helpful, but only in some cases.
1. YouTube "**#Shorts**" trending videos with **zero hashtags** labeled **resulted in sizeable "Views" and "Likes"**. So, the correlation between hashtag and other attributes (views, likes) is not quite strong.

03

Posting time to get the best popularity

Speakers: Sungho Lee, Shulang (Simon) Ning



Motivation

Youtubers are doing their best to make the videos they post popular.
Because of this, they would be considering publishing timing for the best popularity.

Is it true?

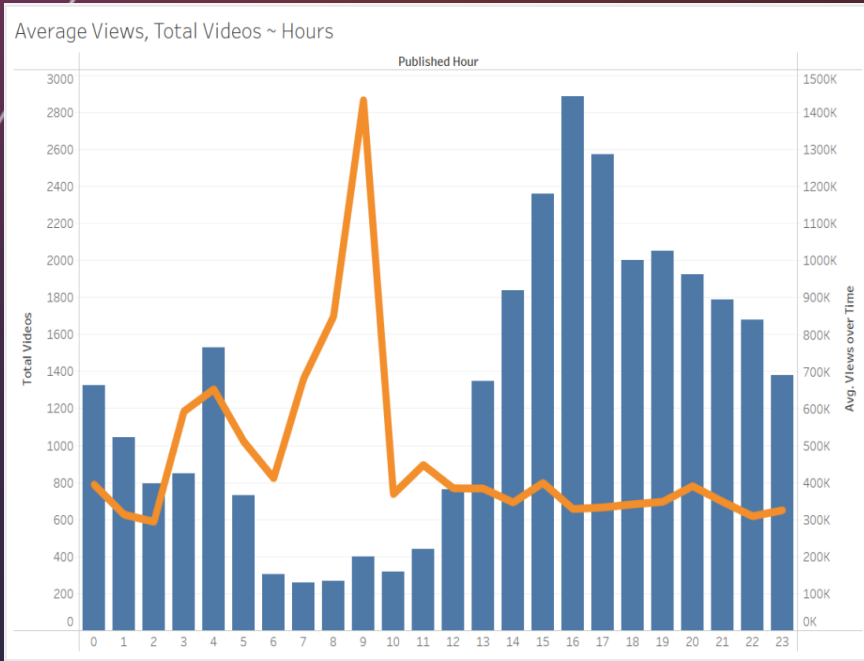
Also, it comes to another question which is - Does long video exposure time lead to a high number of views, likes, and comments?

Let's look at the number of videos and popularity such as likes, comments over the time

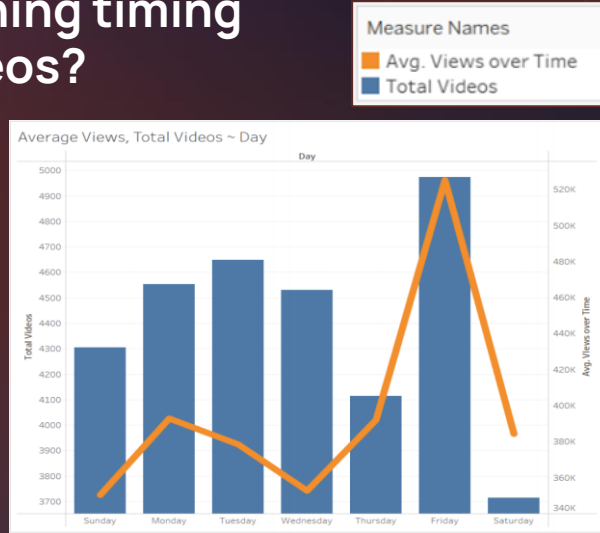
Hypothesis

Youtubers are considering posting time to get the best popularity of their videos.

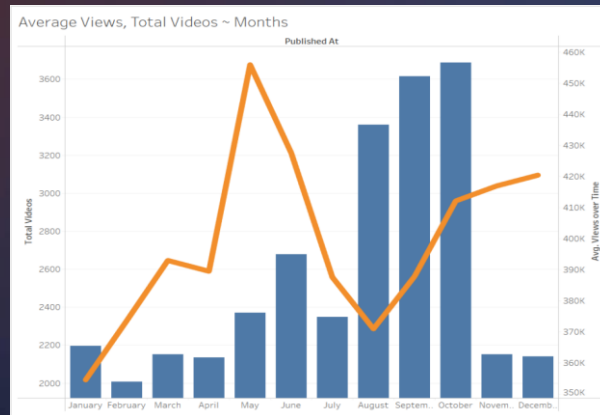
Q. Are YouTubers considering publishing timing for the best popularity of their videos?



YouTubers tended to publish their videos usually at 4 p.m., However, viewers mainly watch contents published between 8 and 9 a.m

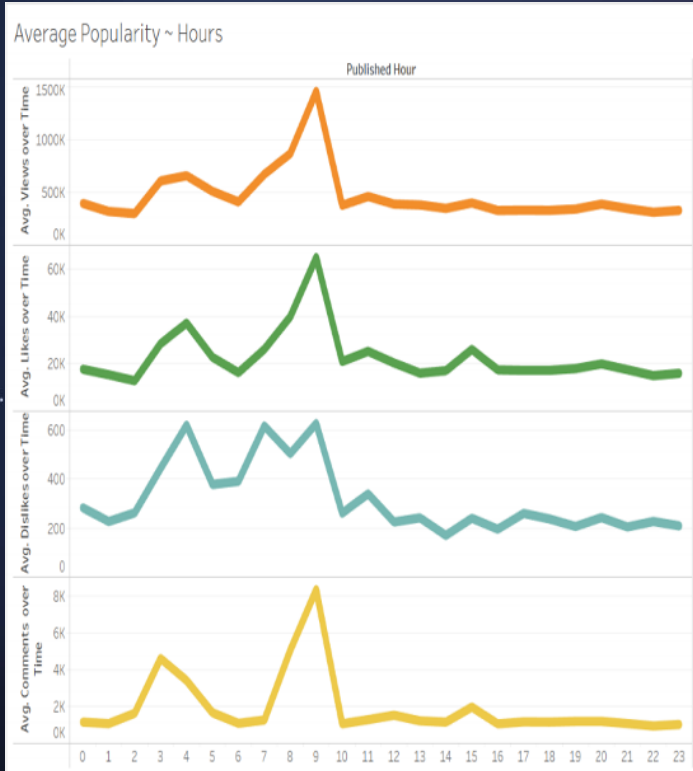


YouTubers publish it on Wednesday, but viewers doesn't.

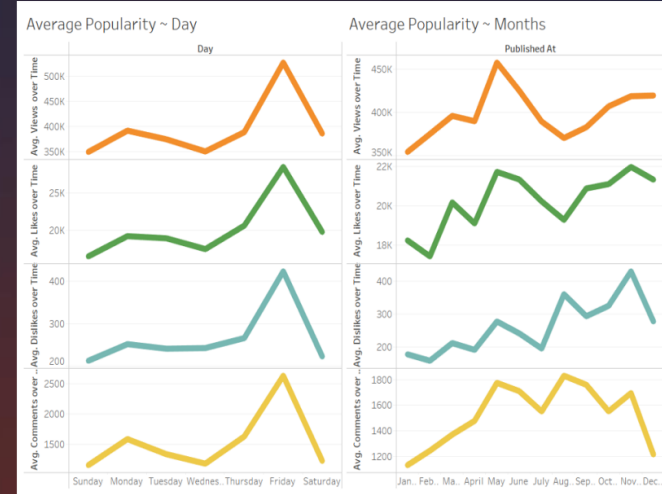


YouTubers prefer in August to October, but viewers prefer in May, November, and December.

Q. What about the relationship between the average number of views, likes, dislikes, and comments in different time period?

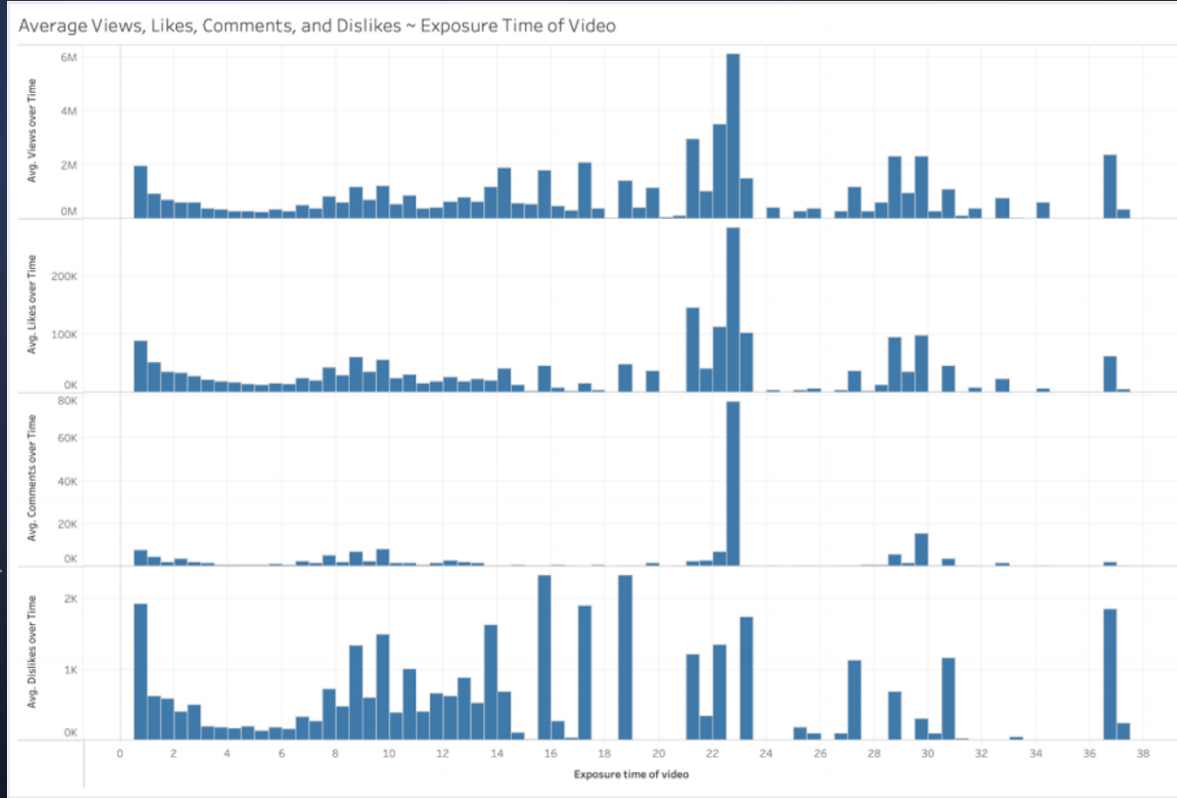


‘Likes’ and ‘comments’ followed the trend of ‘Views’, but ‘dislikes’ were noticeably high in videos published at 4 a.m. and 7 a.m.



In the trend by day of the week, all four variables showed similar trends, but in the monthly trend, viewers tended to press a lot of ‘dislikes’ on content published from October to December.

Q. Will the video's popularity be affected by the video exposure time?



The video will get some views, likes, and comments after posting the video.

At 22.5 hours, the video's popularity went to the highest and then went back to peace.

The Dislike is more like a uniform distribution than other three.

Conclusion

- It might be helpful if they consider the optimal publishing timing!
- Youtuber should send out the video at May, Friday, 8 or 9 am.
- Likes' and 'comments' followed the trend of 'Views' mostly, but 'dislikes' were not in date and month.
- The video's popularity will not be affected by the video exposure time.
- People should make more interested content instead of waiting people come to click like

04

Analyzing the most popular category



Speakers: Ching-Wen (Jenny) Huang, Tamalika Basu

Motivation

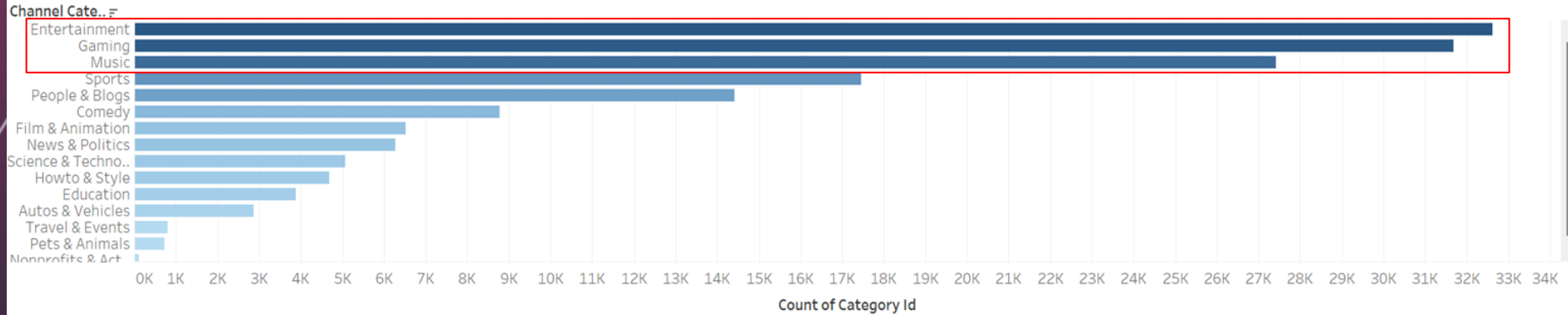
The motivation comes from a layman's understanding of the video viewing pattern. The entertainment category is something that people across demographics relate to and watch. This category does not require any prior knowledge, skill, or understanding and mostly complements the leisure mood for any viewer, thus naturally indicating to be the most popular

Let's find out by measuring 3 KPIs : likes, comments and views on videos

Hypothesis

'Entertainment' category is the most popular among viewers.

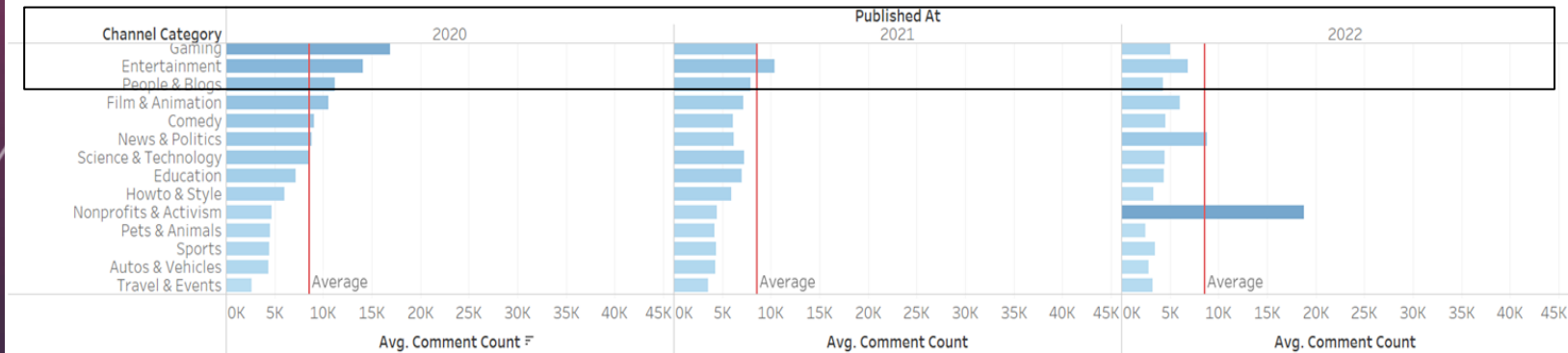
Video Count for each category



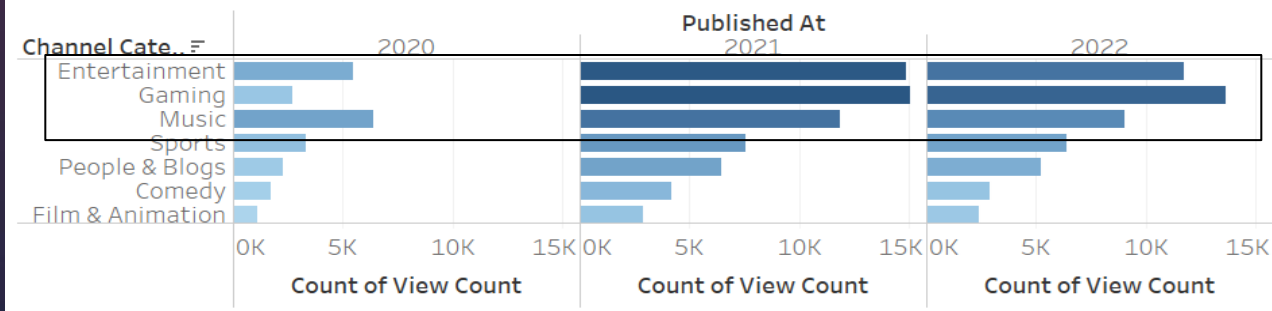
Measuring the number of video entries show - Entertainment, Gaming, Music as categories with highest number of entries.

Let us examine the 3 KPIs other to derive a conclusion

AVG(Comments) for each category



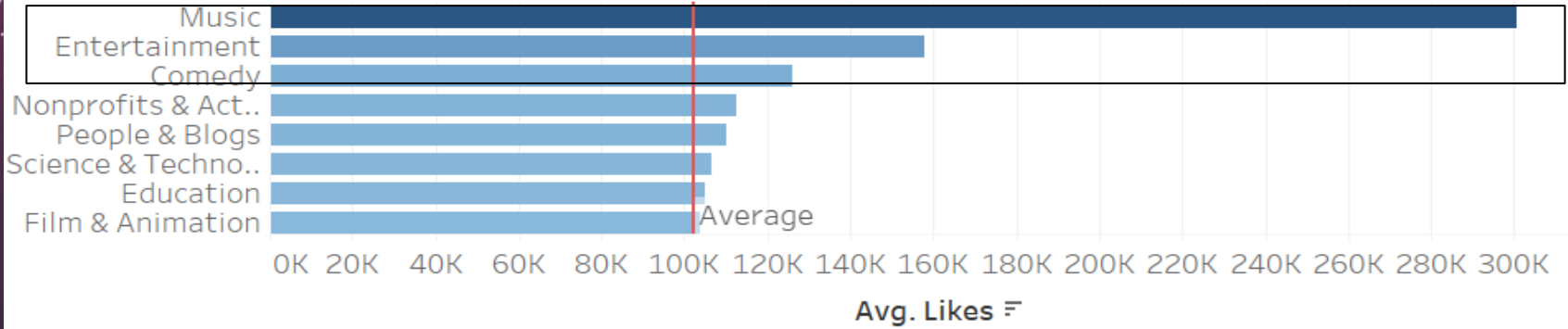
AVG(Views) for each category



Although 'Entertainment' has most views on average, 'Gaming' wins over Entertainment on average number of comments

AVG(Likes) for each category

Channel Category



Music has the most likes on average, followed by Entertainment and Comedy, which contradicts our assumption, music actually wins over Entertainment in likes

Conclusion

Hypothesis of entertainment being the most popular category is incorrect.

Music and Gaming video win over entertainment on different popularity metrics.

New coming Youtuber should consider making music or gaming type of video to win more audience and fans.

05 Risks Encountered

- **Unstable data quality owing to open source platform**
Performed Exploratory Data Analysis to ensure there is not too many missing data
- **Relatively small dataset thus limited columns**
Restricted our assumptions & ability to generalise our hypothesis on wider data
- **Static data – People's taste of Youtube video changes**
Gains insights by monitoring the historical changes of people's preference and interaction with Youtube videos

The background is a dark gradient of blue and purple, resembling a night sky. It is filled with numerous small white dots of varying sizes, representing stars. Two thin, white, curved lines sweep across the frame, one from the top right towards the center and another from the bottom left towards the center.

THANK YOU