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”.**

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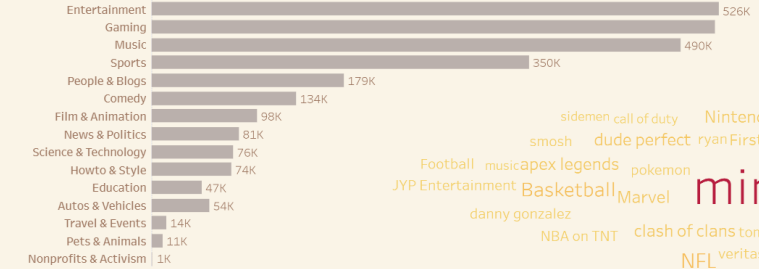
Total Video Counts	Total Channel Categories	Video Published Years
161,449	15	2020 2021 2022

YouTube

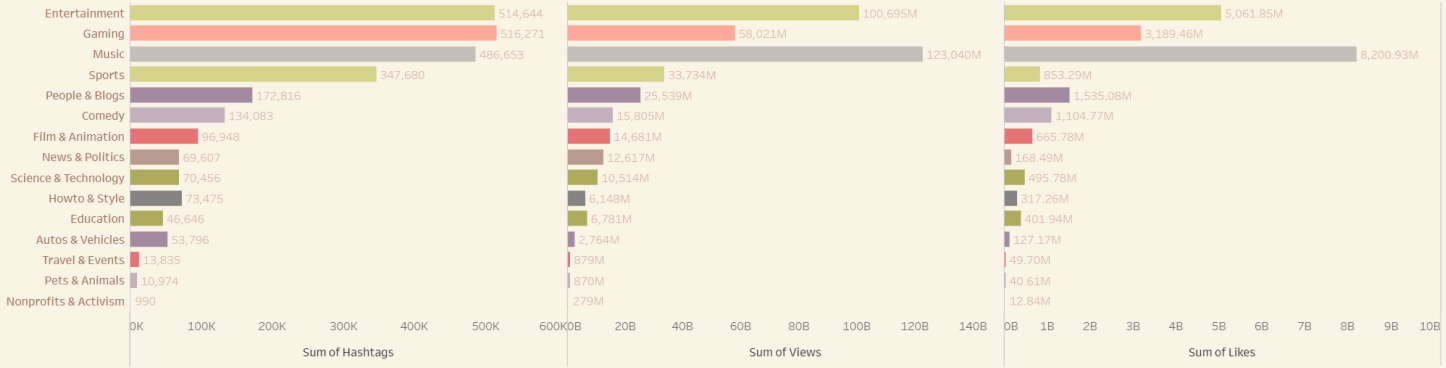
Trending Video Dashboard
- Hashtag Analysis

Video Count for Each Category



Top 50 Hashtags (First Choice)

Video Count for Each Category



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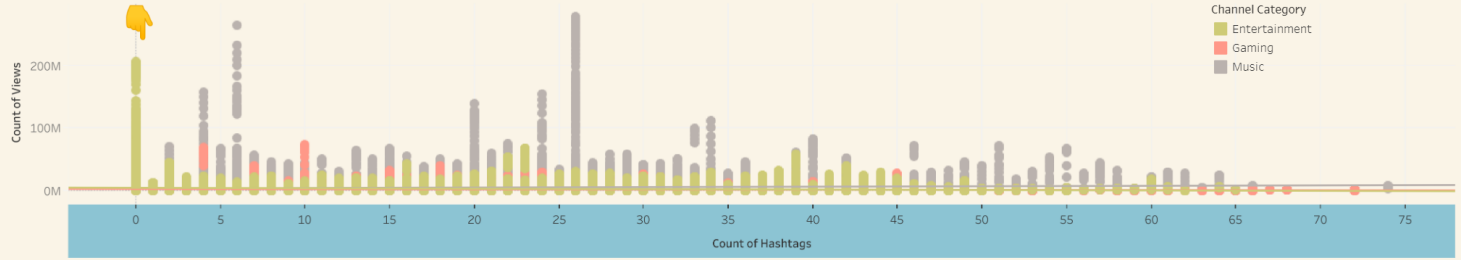
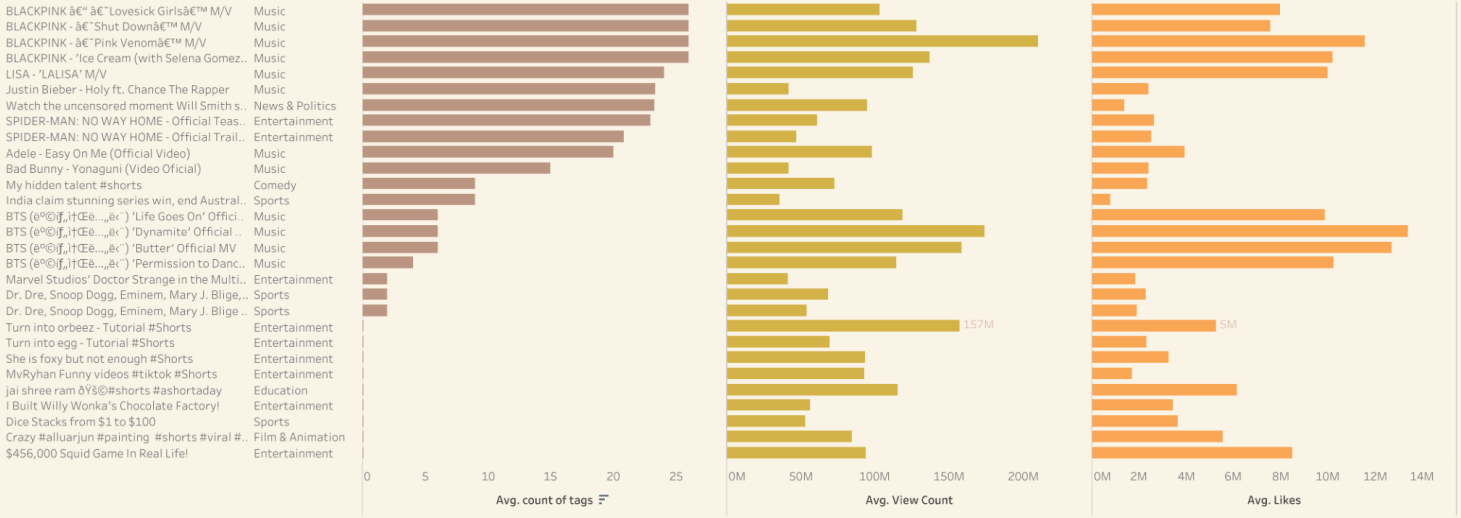
Correlation Between Hashtags vs Views



Top 30 Videos by View Counts by Category



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.

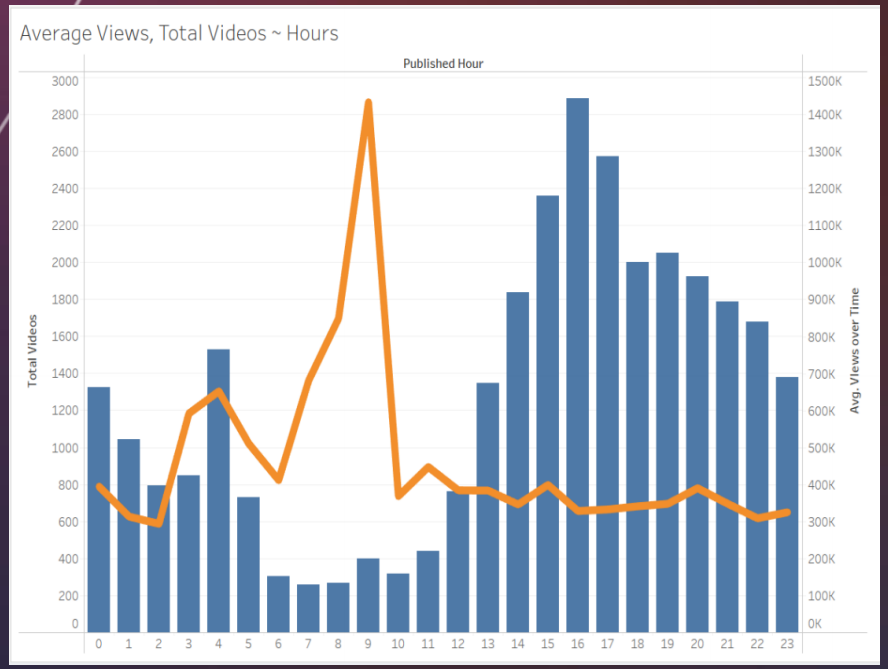
Is it true?

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

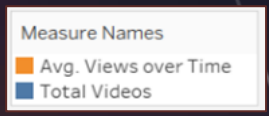
Hypothesis

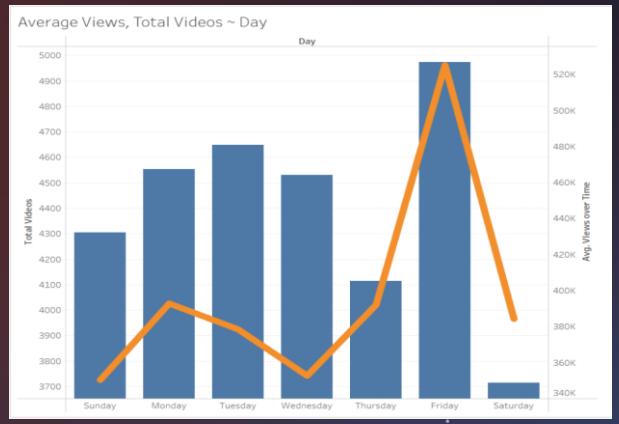
Youtubers are considering posting time to get the best popularity of their videos.

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

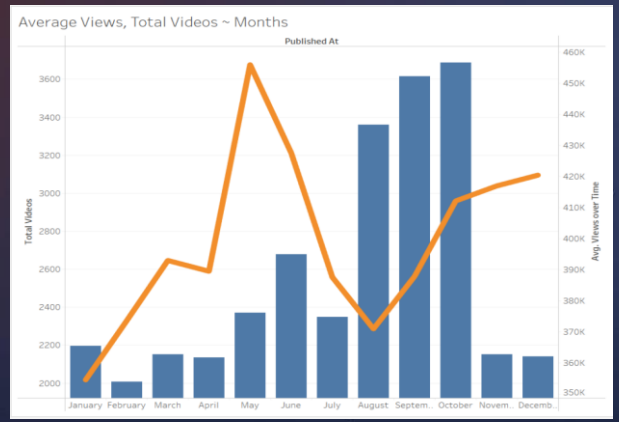


YouTubers tended to publish their videos usually at 4 p.m., However, viewers mainly watch contents published between 8 and 9 a.m



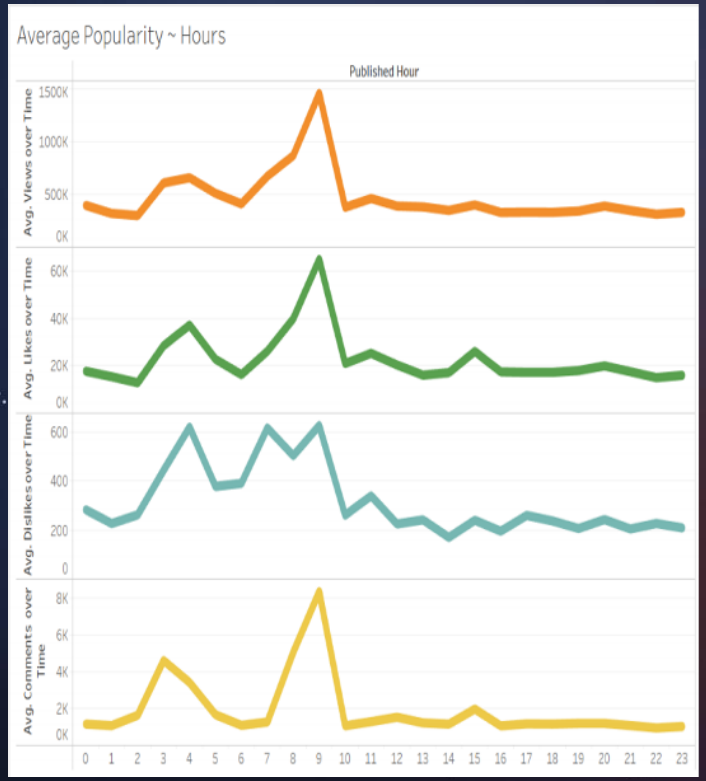


YouTubers publish it on Wednesday, but viewers doesn't.

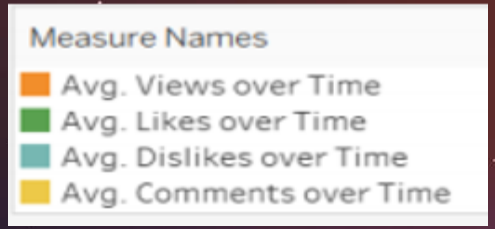


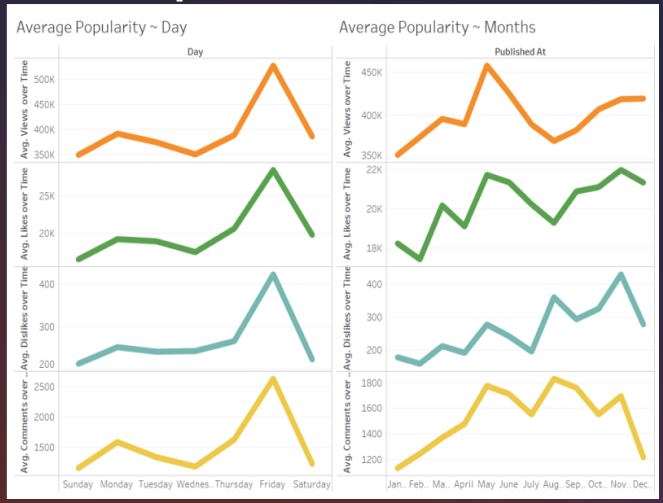
YouTubers prefer in August to October, but viewers prefer in May, November, and December.

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



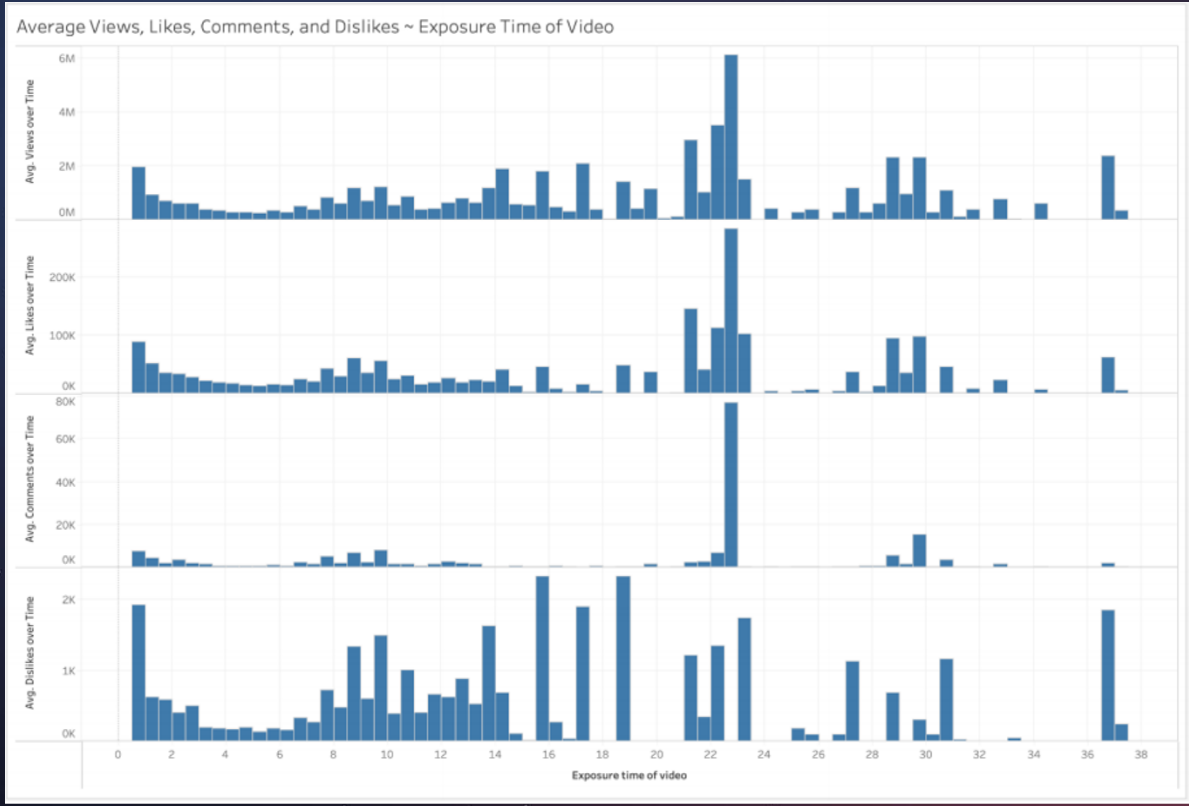
‘Likes’ and ‘comments’ followed the trend of ‘Views’, but ‘dislikes’ were noticeably high in videos published at 4 a.m. and 7 a.m.





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

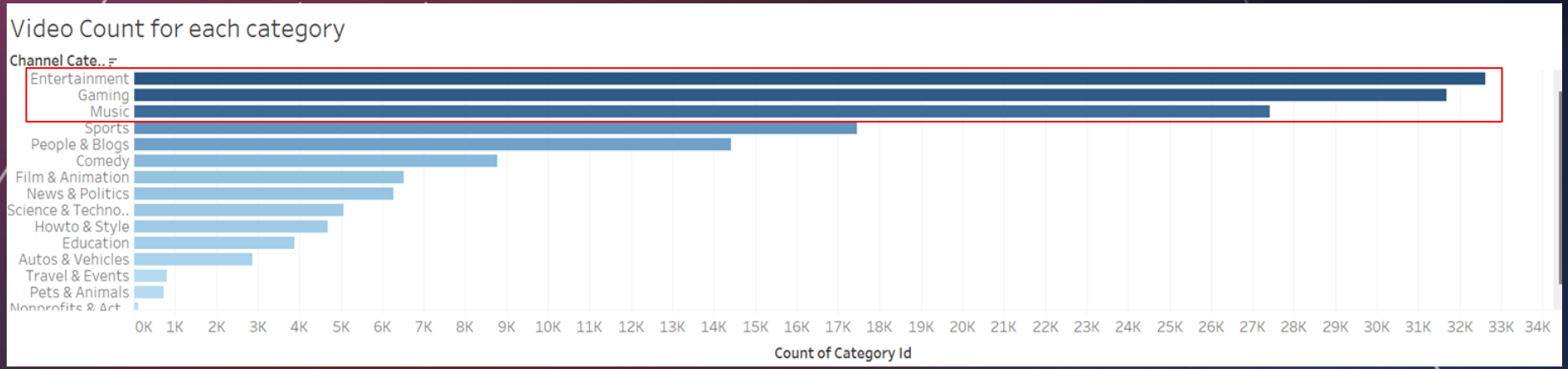
Motivation

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

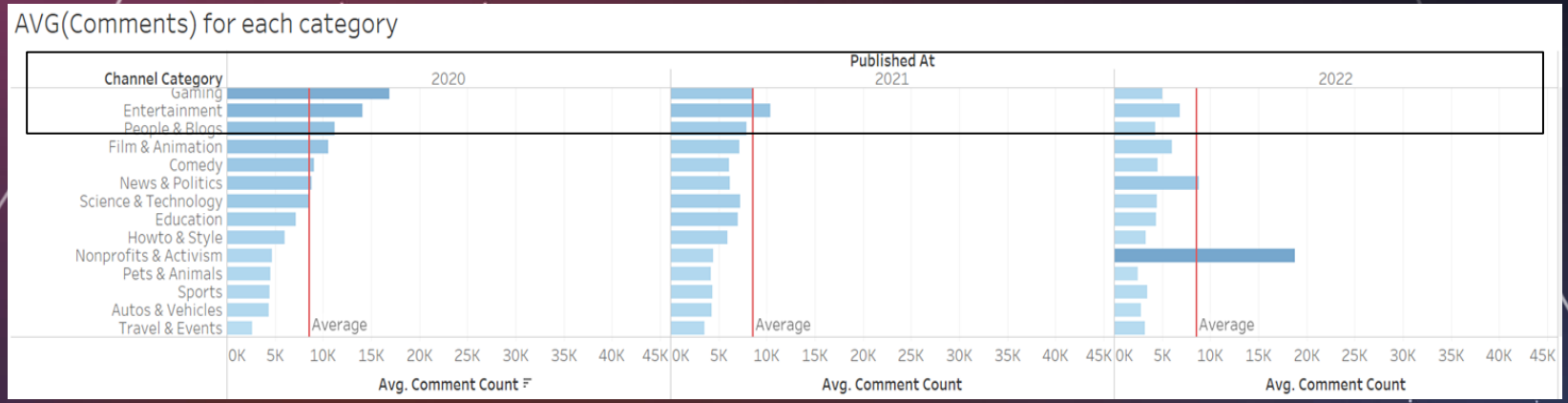
Hypothesis

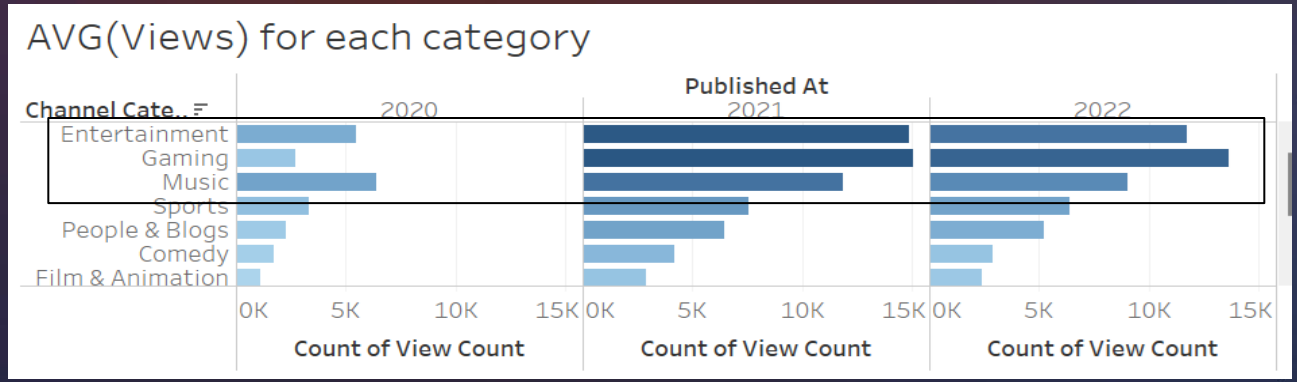
‘Entertainment’ category is the most popular among viewers.



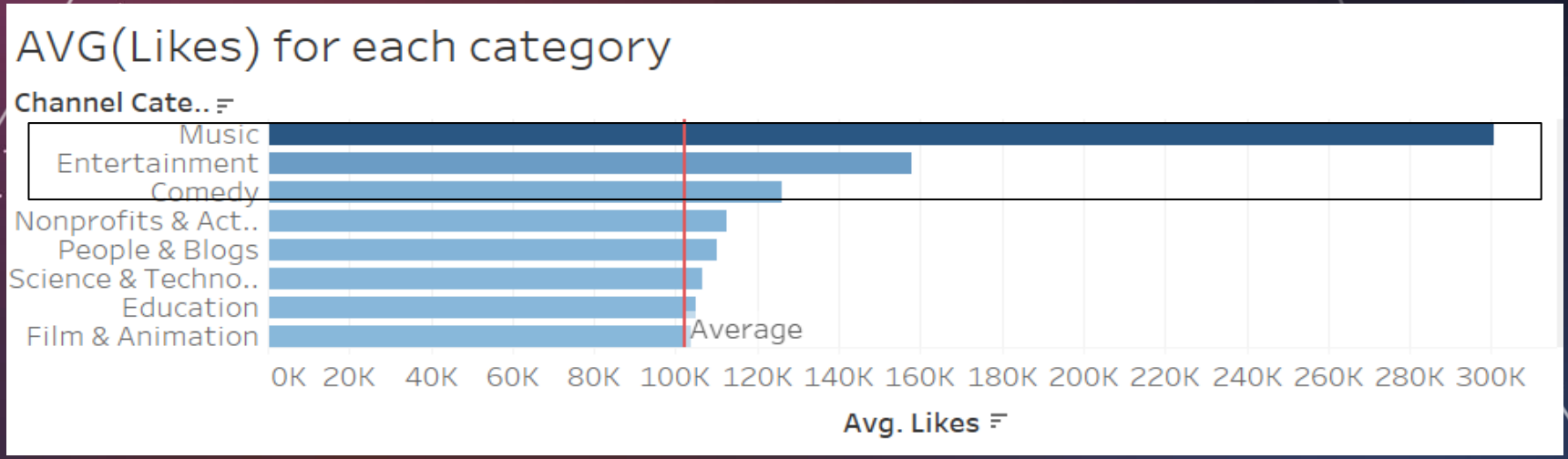
Measuring the number of video entries show - Entertainment, Gaming, Music as categories with highest number of entries.

Let us examine the 3 KPIs other to derive a conclusion





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



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

THANK YOU