

# Youtube Video & Channel Data Analysis

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## Introduction

In this generation, Youtube has played an important role in our daily life. Children have grown up surrounded by videos churned out by performers such as Jake Paul, PewDiePie and Zoella, whose films their daily lives, video gaming and fashion, respectively. This have turned YouTuber into one of the most popular career. However, whether Youtube can help them earn money is always one of the struggling issues. Therefore, it is of the essence to analyze the main factors of how to become a successful Youtuber.

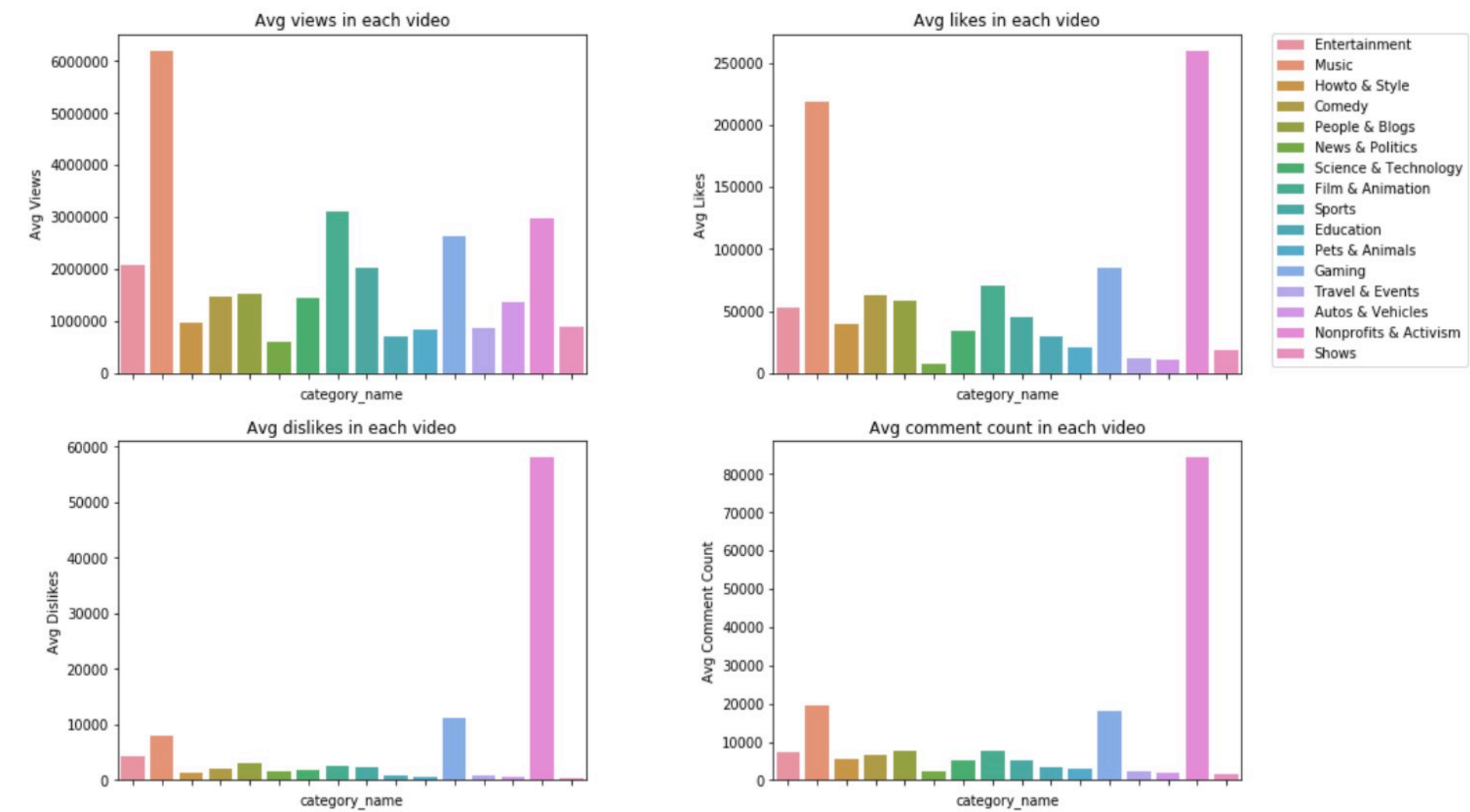
In this data analysis project, we will focus on the possible factors of becoming a successful Youtuber and find the interesting insights from the analysis process. We aim to obtain the conclusion from the hypotheses and demonstrate the result with data visualization plots.

## Hypotheses

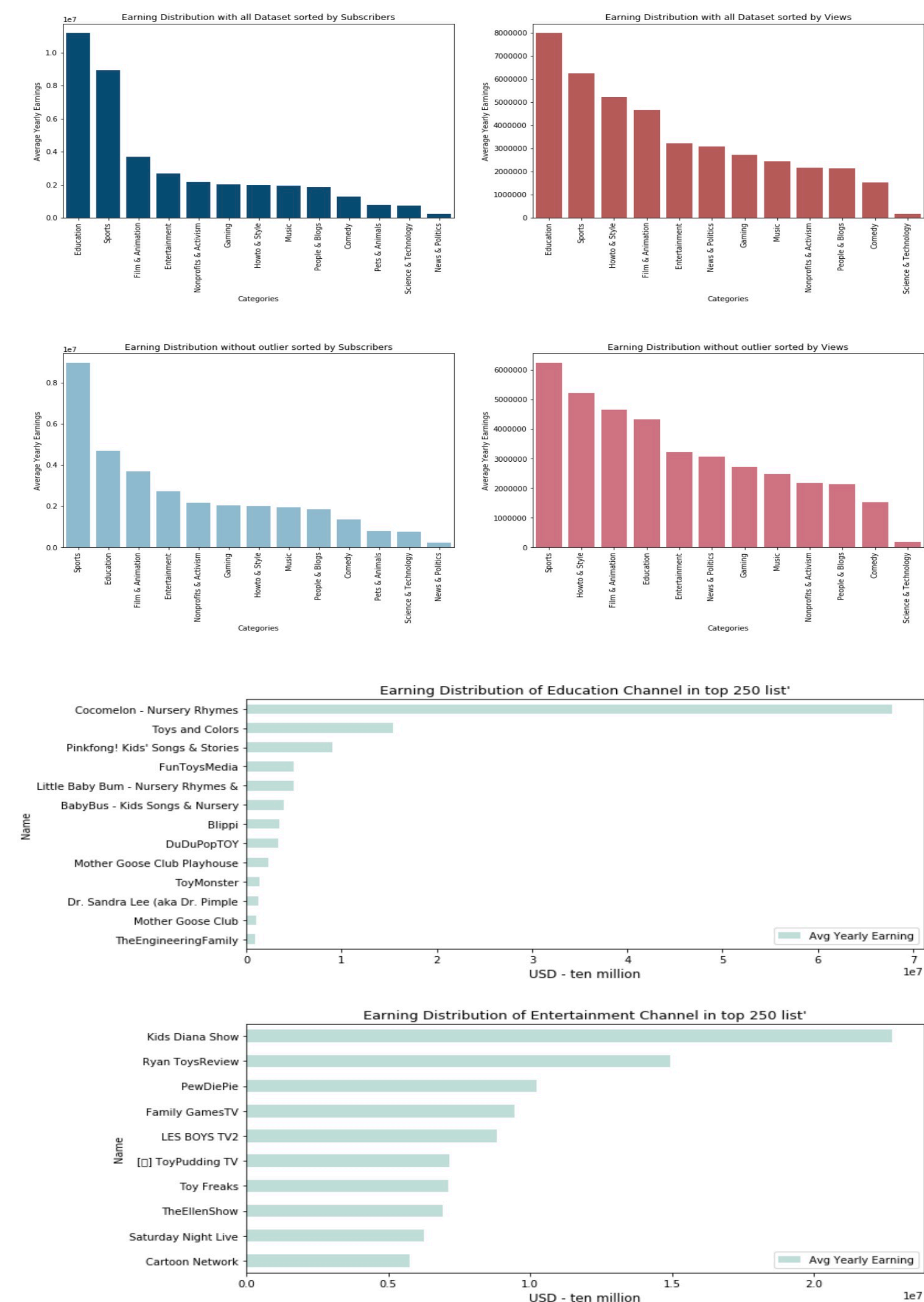
- Hypothesis 1  
Entertainment videos will likely to trend more than other types of videos such as comedy, music, fashion, knowledge, and etc
- Hypothesis2  
Among top-ranking Youtuber, it will be more profitable to operate the entertainment type channel than other types of channel such as comedy, music, fashion, knowledge
- Hypothesis3  
Top U.S. Youtubers will have more trending videos than other Youtube channels
- Hypothesis4  
If you own a top-ranking Youtube channel in the U.S., you can make a big profit

## Result 1

- Entertainment videos have the most trending videos during the data captured period, but it does not mean filming entertainment videos will definitely make your videos trend more. We still need more data to draw the conclusion.
- Number of comments per video of nonprofits & activism videos is the highest, and the days it spent to trend were shorter than most of the categories. We can conclude that nonprofits videos that are able to trend really caused many people's attention.



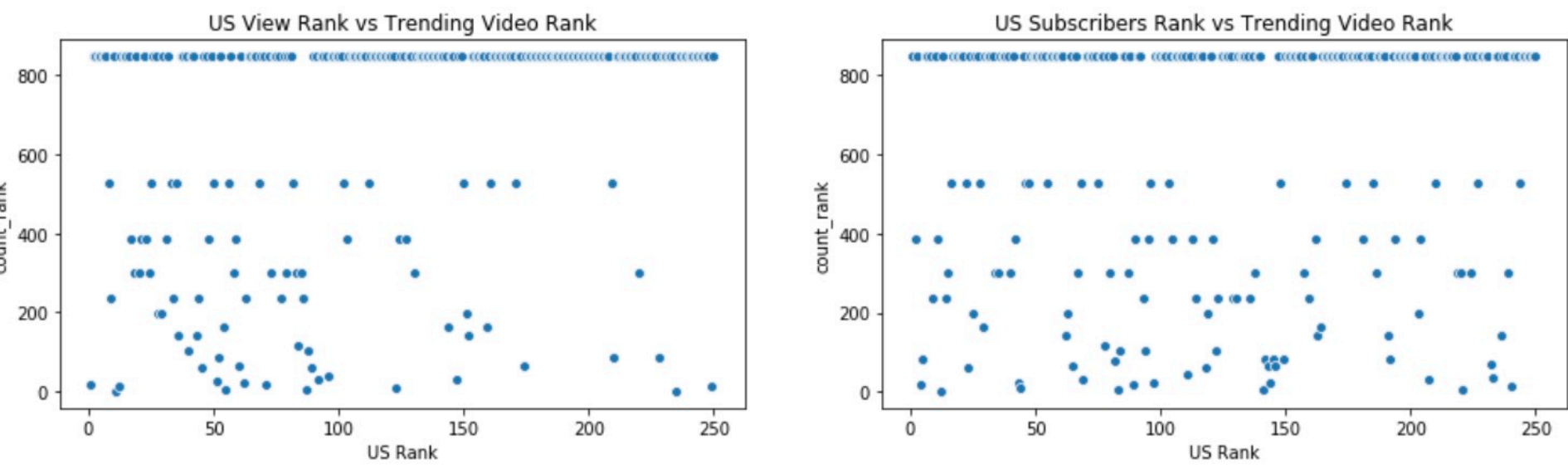
## Results 2 - Diagram



## Results 3

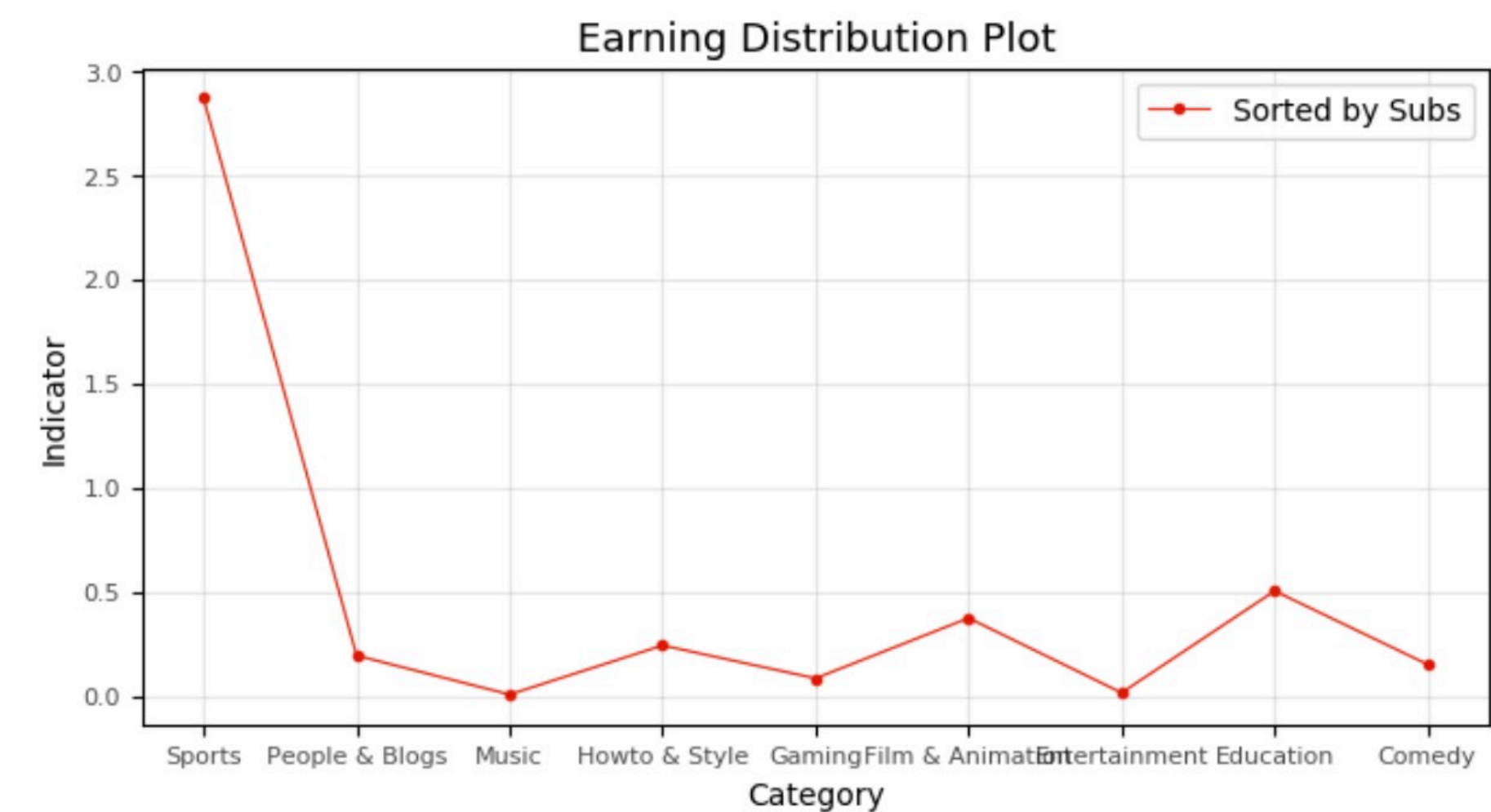
- The result showed that having more more subscribers or video views, does not mean they will definitely have more trending videos in the given time.
- Among the Top 250 US YouTube Channels based on number of subs or views, **around 40% - 50%** of them have trending videos in the given time period, which accounted for **around 15%** of the numbers trending videos in the given time. There are around 23 million YouTube channels in the world. Top 250 US Youtube channels are only **0.001%** of the total number of Youtube channels in the world. This showed how the small proportion of the channels play important roles in contributing to the increase of the Youtube video views for the platform.

## Results 3 – Diagram



## Results 4

- The average earning is about 2 million USD for one year! This is 20 times as large as the SDE salary.
- Some data shows the lower amount of earning since they do not upload videos for two months. They need to keep uploading videos to make the profit.
- We can define a simple function to obtain the sense of earning distribution in each category. The more the indicator is, the more earning gap there will be.
- Top Youtube channel earning percentage = (Amount of earning of top-ranking Youtube channel) / (Total amount of earning of Youtube channel in that category)
- Top Youtube channel percentage = (Amount of top-ranking Youtube channel) / (Total amount of Youtube channel in that category)
- Indicator = Top Youtube channel earning percentage / Top Youtube channel percentage



## Limitation & Future Work

- We will need to capture more data since the dataset only includes 8 month data
- This dataset only includes Top 250 Youtube channel, we can collect the regular Youtube channel data to compare the result for further information