

YOUTUBE DATA ANALYSIS REPORT

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Logo
Name

Introduction

What is the objective of the project ?

Having gained complete access to Youtube statistics data which comprised of data collected of various YouTube giants from different countries of varying demographics of users, subscribers and even youtubers, the purpose of this project was to analyze, gain insights into the powerful YouTube creators, their influential content and how it appeals users from different geographical locations, their earning analysis in addition to the relevant topics adopted by channels staying true to time of events occurring around the globe and frequency with which videos gain popularity.

Overall we are focused in gaining insights into the YouTube analytics, content strategy, earning analysis, a deeper look into the trending topics and for better understand geospatial data visualizations.

With the implementation of tools like Python and Tableau for Data Analysis and visualization the following report is drafted with the above mentioned purpose.

Country wise Subscriber Analysis

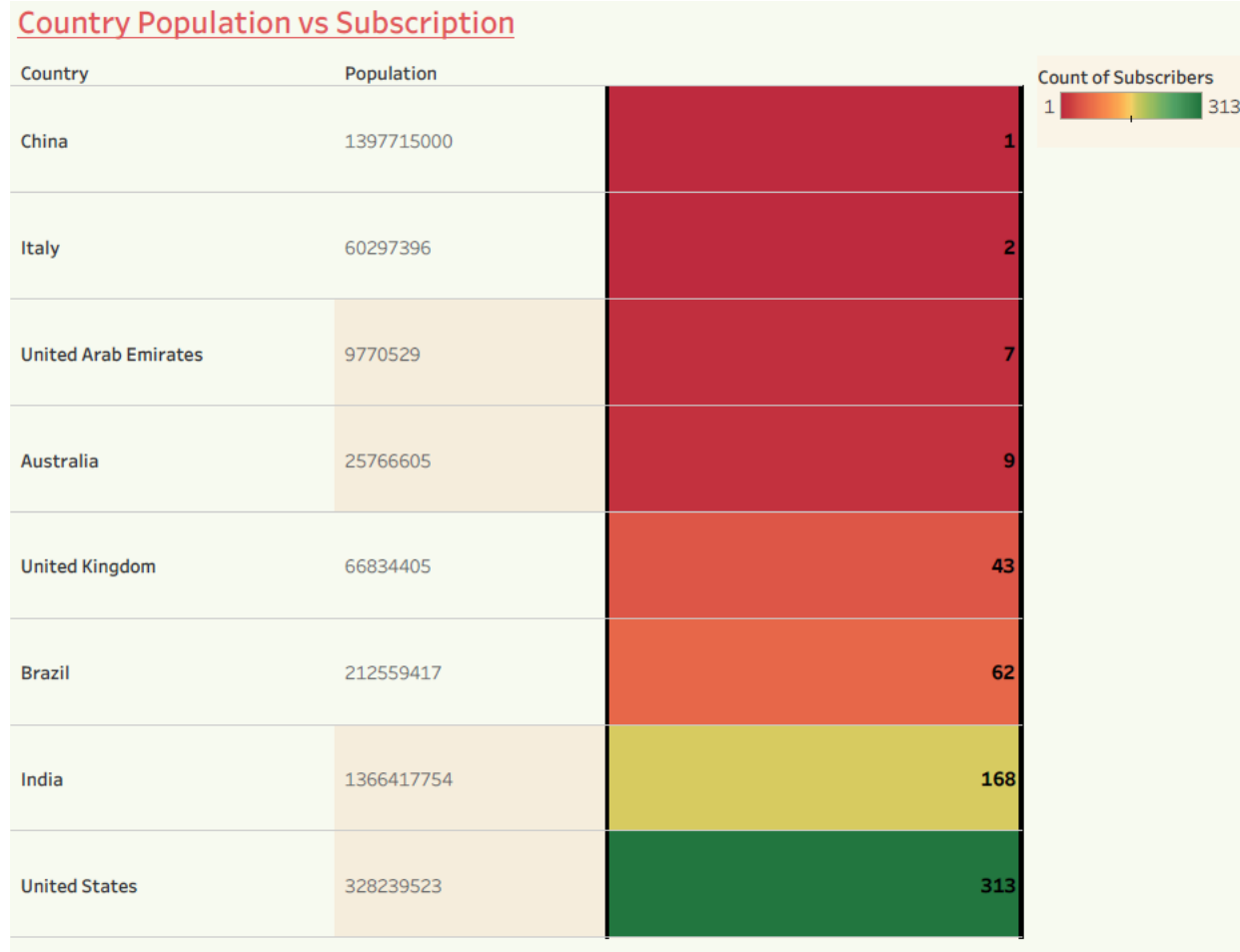


COUNTRY-WISE SUBSCRIBER ANALYSIS

Here this image clearly indicates the subscribers across different countries from around the world. From the legends, its understandable the exact count of subscribers from certain countries which is classified with layered colour specifics of green colour showing the maximum count and red colour denoting the lowest numbers.

Among the various countries, USA tops the subscriber count with 160 nos. followed by Indian continent with a clear 106 count and the third position is taken by Brazil with count 50. Italy and Iran shows the least count, which are marked in red and it is found imperative to handle different *marketing strategies* when **launching plans for these countries specifically.**

SUBSCRIPTIONS - COUNTRY BASED



Above image is Tableau generated

The above heat-map representation is showing the count of subscribers for top 8 countries in the list of survey, of which these subscribers are for the top picked YouTube channels and categories. USA and India are among the top supporters and the users from rest of the countries are marginally very low.

With reference to the population of the respective countries in view, the subscription numbers are depreciating and not encouraging at all. Probably the content, internet availability, lack of updated systems/devices etc. or obsolete targeting/advertising methods are being adopted could be any of the reasons for the visible low numbers.

In order to understand why the numbers are low, it is required to delve into other parameters and to gain a clear understanding of the short-comings and only then it will be possible to develop methods/strategies to solve issues. These will inevitably form the data/information based decisions.



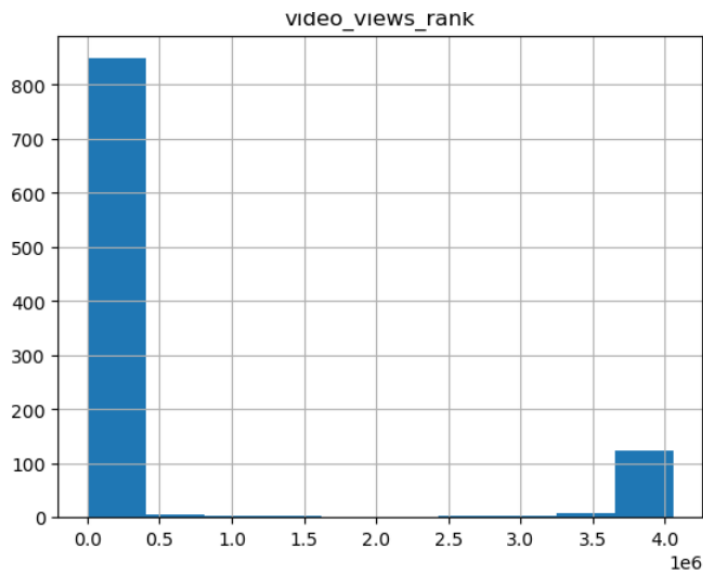
Above image is Tableau generated

Closer look at the highest subscribing country United States, where earnings for monthly basis is \$580,200 calculated from all states in the country of **United States of America**

Country	Category	Channel Type	
United States	Comedy	Games	25,400,000
		Comedy	217,800,000
		Entertainment	152,100,000
		People	25,400,000
	Education	Education	495,000,000
		Film	34,900,000
		Entertainment	19,000,000
		Games	27,400,000
	Entertainment	Music	69,100,000
		Entertainment	1,378,500,000
		Games	20,100,000
		Film	50,100,000
		Comedy	47,700,000
		Education	14,700,000
		People	26,400,000
	Film & Animation	Games	212,600,000
		Film	75,300,000
		Music	33,600,000
		Entertainment	88,900,000

Detailed expansion into details of United States country provides clear stats regarding the different subscribers accessing different channels and category. From the tables we are able to clearly distinguish the maximum subscriptions for the different categories for instance, in comedy category comedy channels show a greater subscription count, in education category education channels have the highest count and in the Entertainment category Music is the **most preferred**.

Youtube should be encouraging content creators of these top prioritized categories which will help gain more ranking, video views at the same time have equal focus on the entertainment quotient being kept alive.



Histogram of Video View Ranking

This histogram representation of data is very important in understanding the available information which indicates a right skewed distribution meaning the average number of the video views in this scenario is more than the median because of some outliers which will probably be some values owing to exceptionally high rankings. It can be interpreted that there are good amount

Histogram generated by Python

of videos with low rankings and very few videos with high rankings. This aspect of the videos that are shared on youtube have to be cross-examined for optimization standards. Unseen characteristics can be yielded from the above histogram representation and hence in such circumstances it is valid to choose the median for actual representation of the data, as it is less influential by the outlier/ greater values at hand.

CATEGORICAL PREFERENCES – FOCUSSED ON UNITED STATES

Highest Preferred Category

Country	Category	
United States	Sports	23,075,929,766
	Education	22,737,205,635
	Shows	16,943,861,338
	Music	13,864,696,662
	Film & Animation	13,227,840,880
	Pets & Animals	12,608,784,229
	Entertainment	10,931,386,862
	News & Politics	10,585,450,966
	Comedy	10,555,589,057
	People & Blogs	10,376,497,601
	nan	9,067,003,281
	Gaming	8,264,560,283
	Nonprofits & Activism	7,339,333,120
	Science & Technology	4,462,722,816

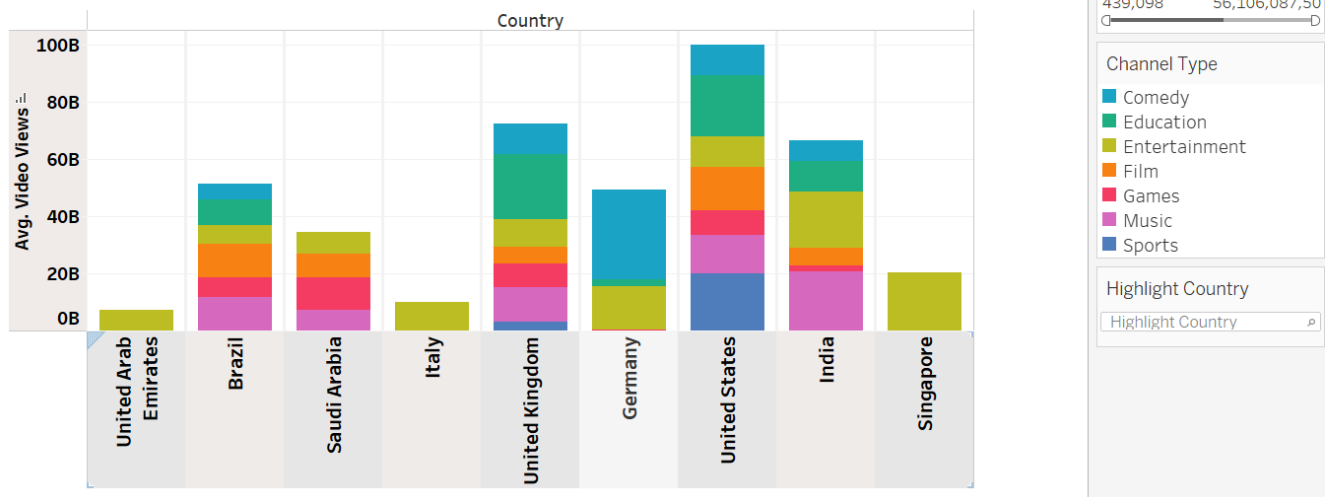
Above image is Tableau generated

Sports followed by Education and then shows are the major categories preferred by audiences in the United States. When aiming at optimizing trends for the different video category, this detailing will be helpful. The clear depiction of the video views for each category is beneficial in knowing what category specifically is opted by YouTube users in United States and how to target the right audiences for the appropriate content creators by generating plans favorable and income generating at the same time. These insights

can vary for different countries owing to different geographic dynamics.

USERS FROM DIFFERENT COUNTRIES – VIEWERSHIP COUNT

Country vs Video Views

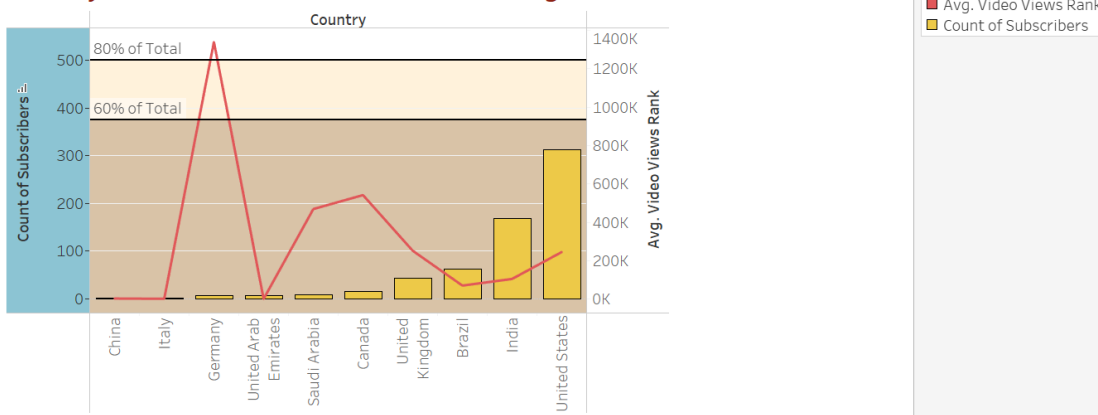


Stacked bar chart representing channel type views by different countries. Image generated by Tableau

The bar chart evidently shows the various channel types in demand in selected countries. Legends clearly indicate Entertainment channel is preferred in most countries with Singapore topping first followed by UAE, Italy. Just as we saw in the previous analysis Sports channel is most favored in the United States. Coming to comedy exclusive channels all countries are showing a greater viewership with Germany being the highest and United Kingdom will be apparently lowest compared to the rest. So with this range of information on display, it is helpful in taking key decisions as to what content and channel is preferred most and how to cater the audience accordingly in these countries. Entertainment definitely is the undeniably a core factor, hence this kind of viewership analysis is imperative in understanding what suits geographically and the kind of the YouTube creators to promoted with relevant content appealing to different audience dynamics.

ANALYSIS BASED ON COUNTRY WIDE VIDEO RANKINGS

Country wise Subscriber vs Video View Ranking

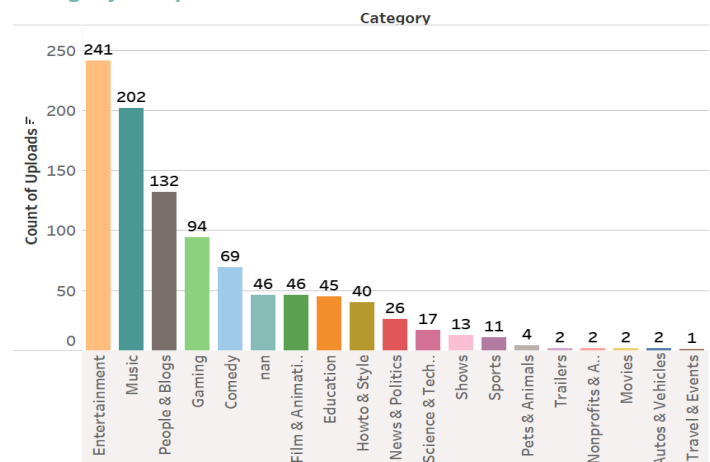


The bar and line combo depicts the subscriber count for select countries and how the viewers provide the video view rankings respectively. The subscriber count is way below the 60-80% average for all the countries and this a factor that is to be taken into consideration of how to improve the subscriber content, ideally by including demographic and geographic based relevant, time topic inclusive content. And point of concern is the dramatic change in the **video view ranking** which is comparatively very low for most of the countries except Germany and Saudi, Canada showing a range of satisfaction, but its Germany that clearly has crossed the 60-80% average. Clear concentration is required on both the measures that we witness in this particular representation of data.

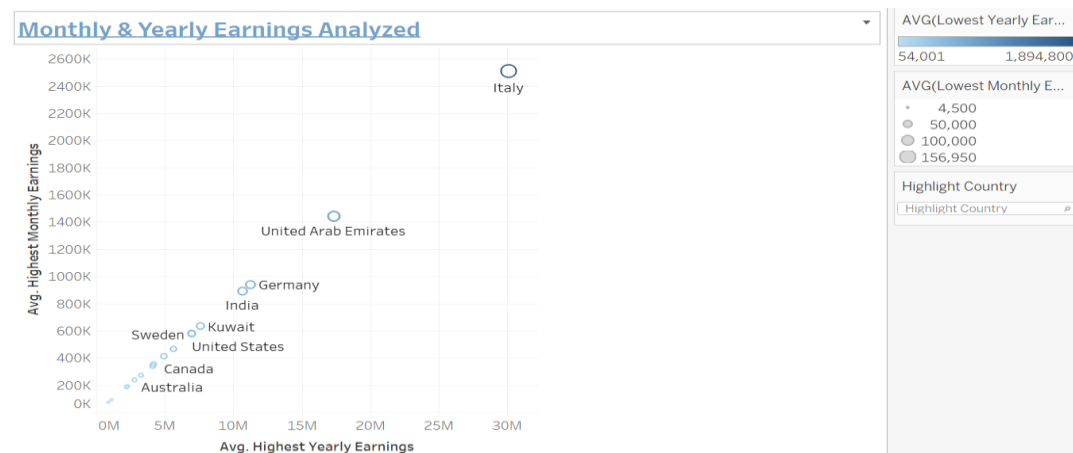
YOUTUBE UPLOADS BY YOUTUBERS – CATEGORICALLY

Contrary to video view ranking display information, uploads of the entertainment category are topping followed by music and people & blog category. But as notified in the previous visualization sports and education were of high priority and depicted significant video rankings and views despite the lower number of uploads as visible in this image.

Category vs Uploads



EARNINGS – COUNTRIES SPECIFIC



Italy users are generating the highest revenue for youtube, followed by UAE, Germany, India, United States of America. The scatter plot in the above Tableau generated figure shows the highest yearly

Earnings from Italy and United States is apparently low compared to the other top revenue generating countries for the youtubers.

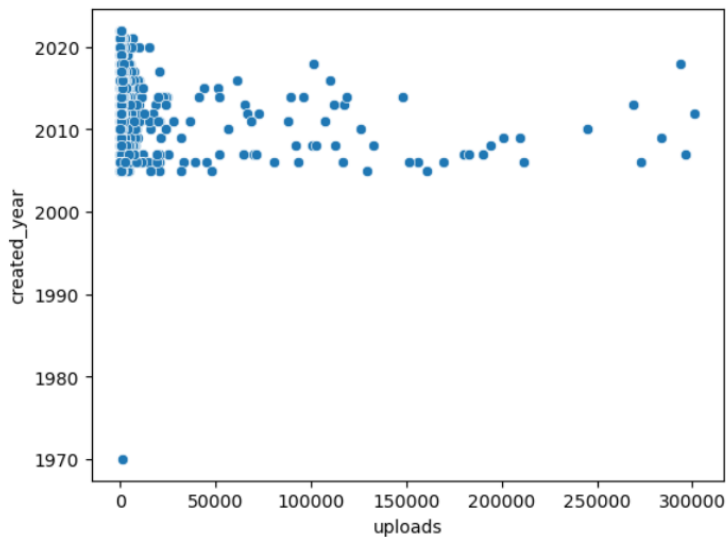
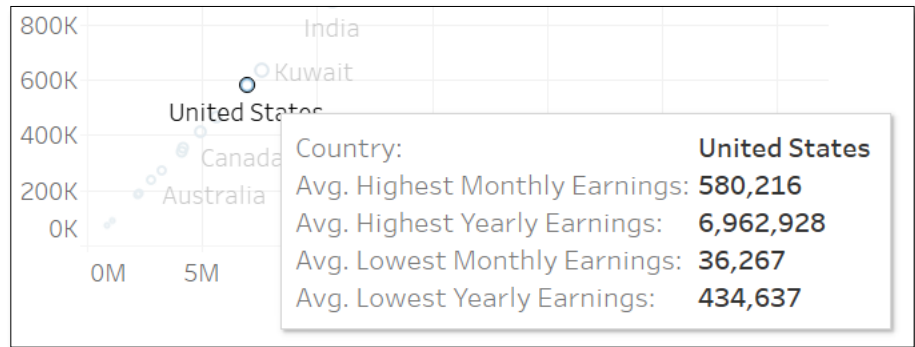
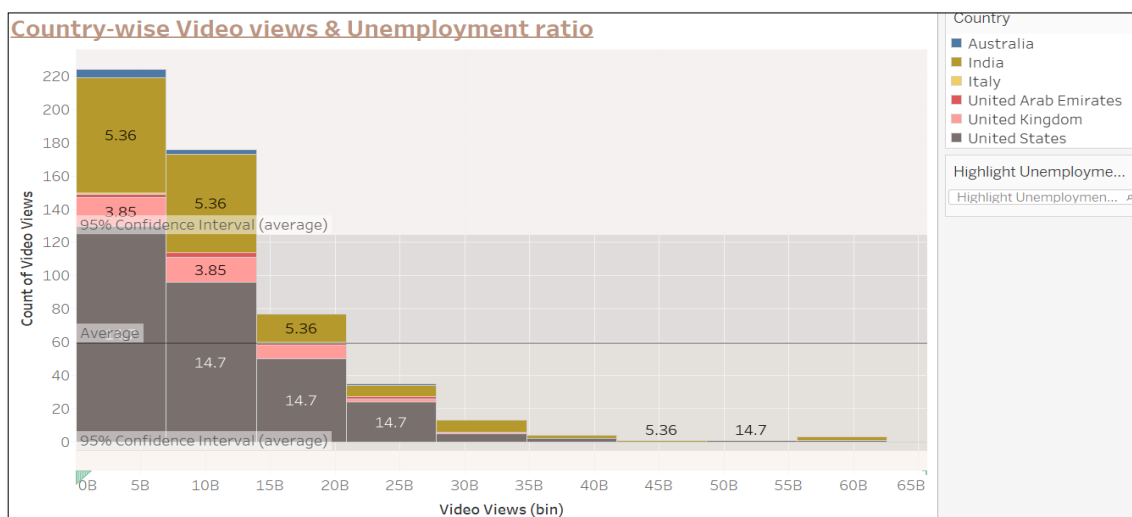


Image of scatter plot generated by Python

This scatter plot developed for number of uploads from youtubers across different years starting from 1970 to recent year 2020, clearly indicates the rise in the YouTube platform trend from late 2005 onwards. Youtubers joining the platform was at a fast pace over the years but the tradition of creation of videos seem to be a natural process, gaining popularity by means of providing earnings which resulted in greater number of uploads but the number of youtubers are just above mediocre count.

POSSIBLE REASON BEHIND EMERGENCE OF **YOUTUBE PLATFORM**



From the above stacked bar chart diagram, we need to understand the significance of being unemployed and how these particular users are depending on youtube for numerous reasons. United States will be the top score of 14.7% unemployment rate providing maximum video viewing counts in the respective bins. Indian users are just behind with 5.36% unemployment rate accessing youtube platform consistently a reason for increasing video view counts. United Kingdom is the third next country with 3.85% unemployment rate.

FINAL SUMMARY

- USA has been the country comprising of major audience in terms of users and subscribers , India and Brazil following. With comparison to the population in the respective countries subscriptions are apparently very low, which requires attention
- Users from USA are contributing the most in terms of maximum early on a monthly basis
- Music channel in Music category is the first prioritized followed by Entertainment channel in Entertainment category with maximum subscriptions.
- In effect Sports category is preferred in United States when analysed in Video viewing aspect.
- Germany ranks the Video views the most with less number of subscribers and USA video view ranking is very low
- Interesting fact to note and to focus more is about the uploads in each category. Even though sports category is viewed more, sports uploads are very low below average. But entertainment uploads are the highest instead.
- In terms of monthly earnings and yearly earnings USA is only 6th in position even after having the highest number of subscriptions
- Probable reason is unemployment , where USA ranks the highest in unemployment, followed by India but they are viewing the videos the maximum.

In short as we arrive at the conclusion, based on the data, and on the insights drawn from different perspectives, combining suitable attributes to analyze factors governing the youtube platform performance, it is found that even though certain section/category are witnessing a higher range of viewership, the same is not the case for the rest of the categories which leaves a huge gap that needs to be filled. And that mainly depends on the content created by the youtubers – quality, content, standard, relevance and dynamics, which are of utmost importance first and the secondary factors which will improve the youtube performance depend on what facilities are available in each country respectively that will also help boost the overall performance and in turn the revenue. Optimized strategies for advertising and

marketing will also leverage the thereafter taking to greater extents. Understanding the pulse, what creates a trend among the viewers is what will create an impact and to feed that a proper survey would be beneficial for different countries. Proper content, geographically satisfying and timely eventful stories should be influential and safe and the right kind of youtubers have to be encouraged as well. In this manner, the gap in the viewship and video ranking can be dealt with and handled poignantly. This should indeed serve for successful uplift for the Youtube platform.

