SOCIAL MEDIA ANALYTICS [CSE4069]

YOUTUBE TRENDING VIDEO ANALYSIS

PROJECT TYPE: B (GITHUB CODE)

GITHUB LINK: https://github.com/YuvashreeRchan/Youtube_Video_Trend_Analysis

SLOT: D1+ TD1

CLASS-ID: CH2022235001973

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INTRODUCTION

YouTube is a widely used video platform that allows users to upload, share, and view videos. The site is known for its vast collection of videos, including everything from music to educational content. One of the most popular features of YouTube is its "trending" section, which displays the most popular videos of the moment. To gain insights into the content that is trending on YouTube, we will use Python and several popular data analysis packages such as Pandas and Matplotlib.

We will be analyzing a dataset that was collected over 205 days and contains information about more than 37,000 trending videos. The dataset, which is available on Kaggle, includes data about trending videos for many countries. In this analysis, we will focus specifically on trending videos in India. By exploring the data, we will be able to identify commonalities among the videos that are trending in India, such as the types of content, the creators, and the audiences that are most engaged with these videos.

These insights can be valuable for creators who want to increase the popularity of their videos on YouTube. By understanding the characteristics of trending videos in India, creators can tailor their content to align with what is currently popular on the platform. Additionally, the analysis can help content creators identify gaps in the market and create content that appeals to underrepresented audiences. Overall, this analysis can provide valuable information for anyone looking to create and promote content on YouTube.

STATEMENT OF THE PROBLEM

With the vast amount of content on YouTube, it can be challenging for businesses to effectively reach and engage with their target audience by using the right influencer to promote their motive/ business. This work aims to provide businesses with valuable insights into the popularity of videos on YouTube and how they can improve their YouTube strategy to effectively reach and engage with their target audience.

The proposed solution is to develop a model that can effectively predict the likelihood of a YouTube video becoming trending based on various data points such as video titles, views, likes, and comments. This helps the business and content creators with valuable insights into how they can use YouTube as a social media platform to reach and engage with their target audience. We will use the insights gained from the social media analytical tools such as YouTube Analytics and Vaizle to make predictions of whether a YouTube video is likely to be trending or not which can be used further to make recommendations for how businesses/ advertisers and content creators can improve their YouTube strategy.

LITERATURE SURVEY

"A systematic literature review of YouTube video popularity prediction models" by P. Bhattacharya, et al. (2019), This review analyzes the different methods and models used to predict the popularity of YouTube videos. The study found that models based on machine learning and natural language processing techniques were the most accurate in predicting video popularity.

"A review of YouTube trending algorithms and its impact on the platform" by Y. Zhang, et al. (2020), This review explores the impact of YouTube's trending algorithm on the platform and its users. The study found that the algorithm has a significant impact on which videos become popular and that it can influence the content that creators produce.

"YouTube video analytics: a literature review and future research directions" by L. Cao and L. He (2020), This review examines the existing literature on YouTube video analytics and identifies potential areas for future research. The study found that there is a need for more research on the social and cultural factors that influence video popularity.

"A review of YouTube content analysis tools and their applications" by F. Vahidnia, et al. (2020), This review evaluates the different tools and techniques used for content analysis of YouTube videos. The study found that sentiment analysis and topic modeling were the most commonly used techniques for analyzing YouTube content. The review also identified several challenges related to the analysis of user-generated content on YouTube.

DATA COLLECTION

NAME OF THE DATASET: Trending YouTube Video Statistics (Daily statistics for trending YouTube videos) https://www.kaggle.com/datasets/datasnaek/youtube

DATASET DESCRIPTION:

- This dataset includes several months (and counting) of data on daily trending YouTube videos. Data is contained for the US, GB, DE, CA, FR, RU, MX, KR, JP, and IN regions (USA, Great Britain, Germany, Canada, France, Russia, Mexico, South Korea, Japan, and India respectively), with up to 200 listed trending videos per day.

- Each region's data is in a separate file. Data includes the video title, channel title, publish time, tags, views, likes and dislikes, description, and comment count.

- The data also includes a category_id field, which varies between regions.

DATA ANALYSIS APPROACHES

Our project will begin by collecting a large dataset of trending videos on YouTube. We will pre-process the data and extract relevant information such as video titles, views, likes, and comments. Next, we will use any of the analytical tools to analyze the data and understand patterns in the data and identify key trends.

Furthermore, we will use the data obtained from the analytical tools to track the performance of the videos, including views, engagement, demographics, and geographic information, to understand the audience and how to effectively reach them. The analysis results will be visualized using various data visualization techniques such as charts and graphs, to make it easy to understand and interpret.

TRENDING YOUTUBE VIDEO DATA ANALYSIS IN R

A trending video can be identified by three major measures:
1. Number of Likes
2. Number of Views
3. Number of Comments

Upon looking at the distribution of likes, dislikes, views, and comments of the trending YouTube videos, we can see that, "most of" the trending YouTube videos have a total of:

- **1,000,000** views
- About **1,000** dislikes or **10,000** likes
- About **2,000** comments

We will be looking at the number of videos being posted and the number of views being received.

## ANALYZING THE BEST TIME TO POST A VIDEO (BY MONTH, DAY AND TIME)

I)   MONTH
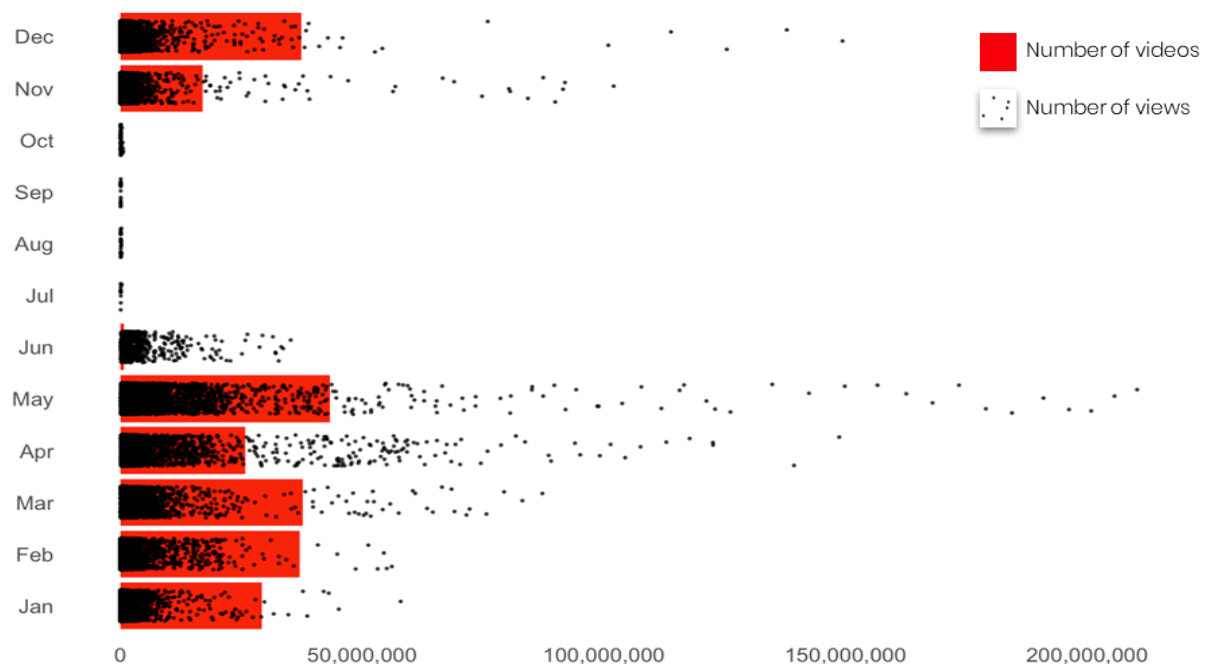
INFERENCE:

- The lowest number of trending videos are posted from June to October.
- It also shows that the highest number of trending videos are posted in May with the highest number of views.
- The best time to post a video would be April and May as they show the highest number of views in comparison to the number of videos posted. Months December, March, and February also see a high number of trending videos being posted but not as many views.

II) DAY OF THE WEEK
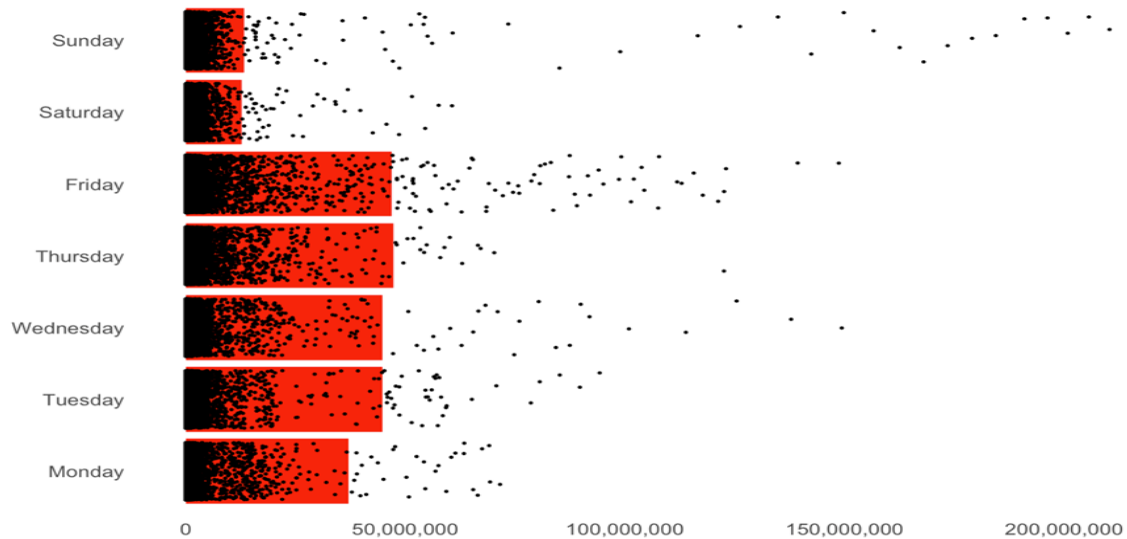
INFERENCE:

- Most trending videos are posted on Tuesdays through Fridays. Thursday and Friday see the highest number of trending videos with Friday showing the highest number of views.
- Interestingly, Saturday and Sunday are the worst to post videos as fewer videos are being posted on these days and these days see the lowest number of views as compared to other days.
- However, there might be an extremely small chance that a video that you post on Sunday reaches 200 million views!

III) TIME OF DAY
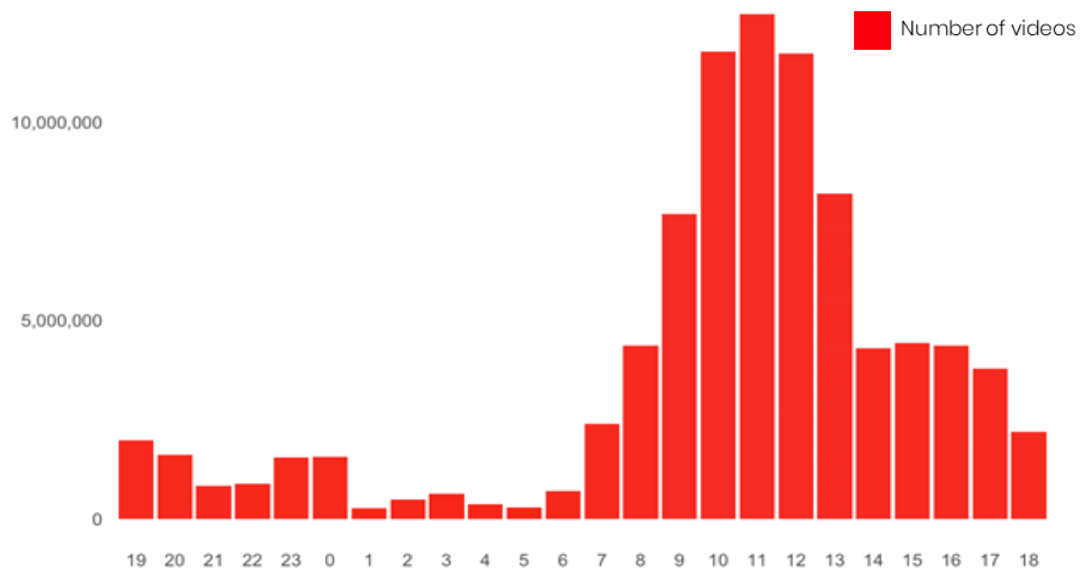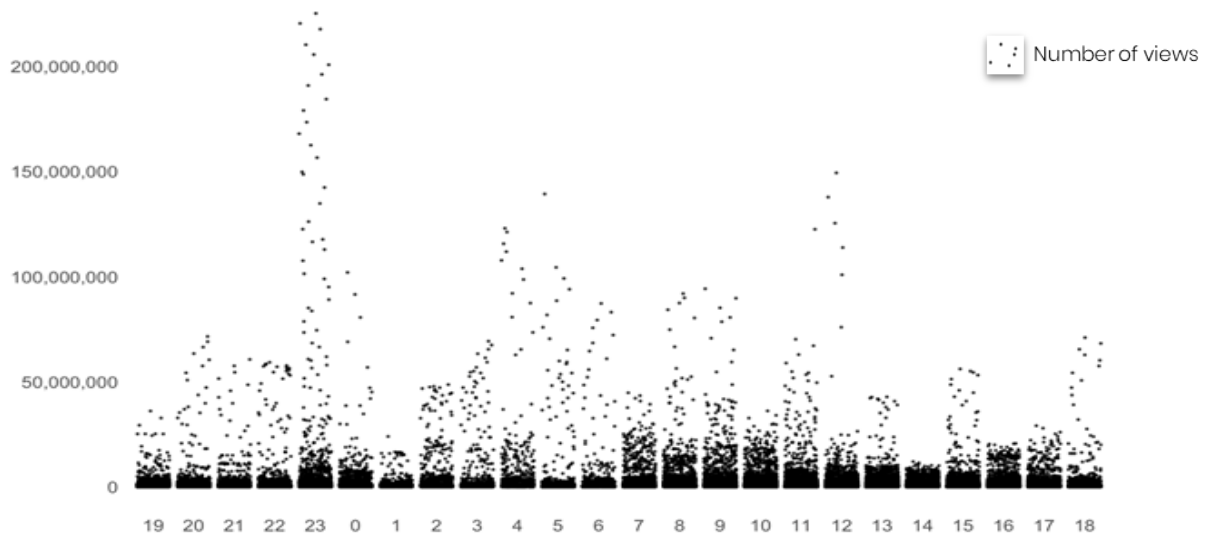
Number of views

INFERENCE:

- We see the highest number of trending videos being posted around 8 AM to 5 PM with the peak time from 9 AM to 1 PM. (CST)
- Surprisingly, around 11 PM, when few of the lowest number of videos are being posted, we see the highest variation in the number of views!
- The best time to post a video would be around 8 AM to 11 AM. However, there is a small chance if you post at 11 PM, that your video will get the highest number of views, though it might be risky as this is also.

**ANALYSE OF HOW TO POST A TRENDING VIDEO - DESCRIPTION, TAG, TITLE:**

I)   **FINDING THE OPTIMAL LENGTH OF DESCRIPTION FOR THE VIDEO**
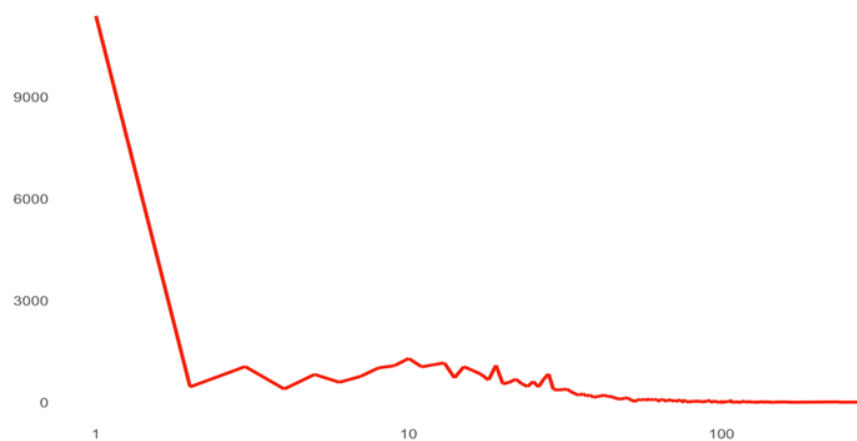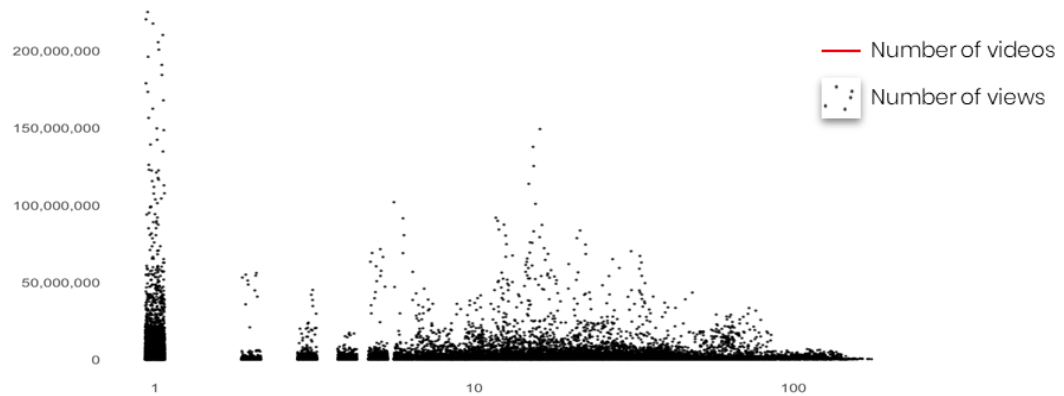
- "*Rows of description*" are defined by the number of rows it takes to describe the video.

- Most trending YouTube videos have **1 - 3** rows of description only and videos with **1 row of description** see the highest number of views. Keeping a simple description of the video may be what attracts or loses a viewer. However, we see a spike in the number of views at around 20 rows of descriptions. These might be videos that required further explanation.

II)   **NUMBER OF TAGS**
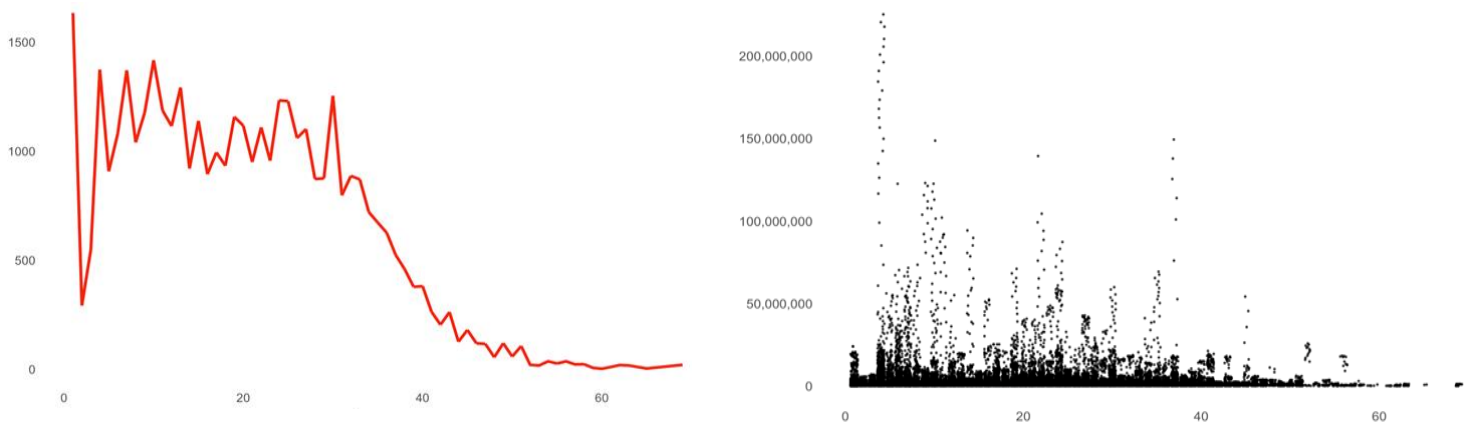
INFERENCE:

- There are a large number of trending videos with no tags but they see a lower number of views. Anywhere between **3 to 20** tags see a higher number of views. Most people uploading videos chose to add tags within this range.
- We can also see that adding more tags outside of this range resulted in a decline in the number of views. Furthermore, the number of people choosing to add tags greater than this range also declined.

III)   TITLE - NUMBER OF UPPERCASELETTERS:
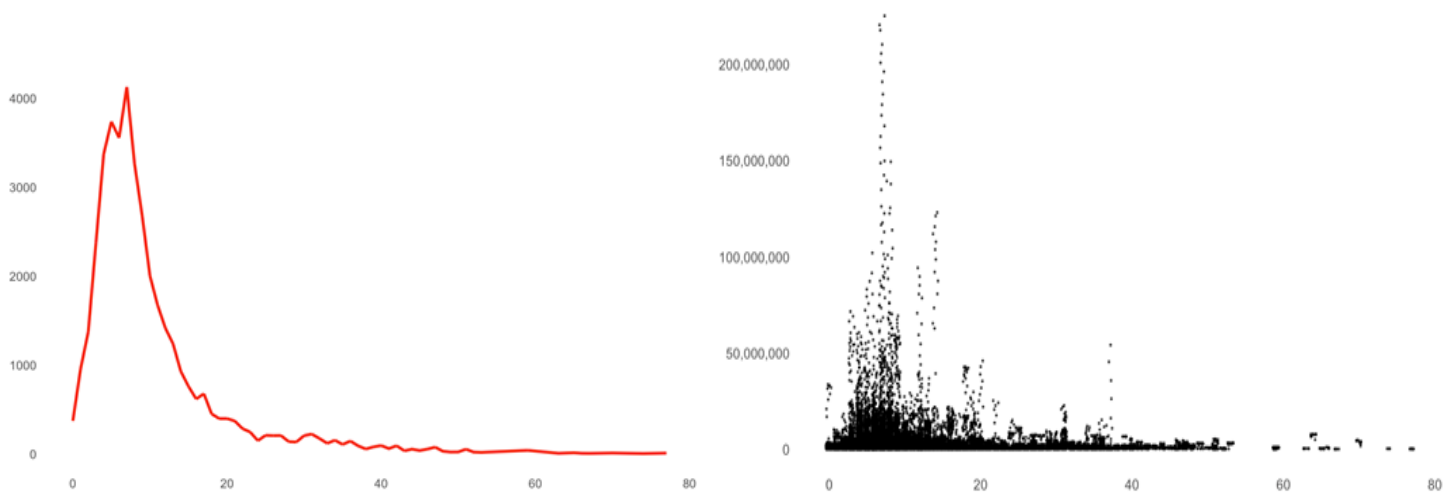
The greatest number of views appeared on videos where the title had between 1 to 15 uppercase letters. Most uploader's chose to stay within this range.

IV)   LENGTH OF TITLE
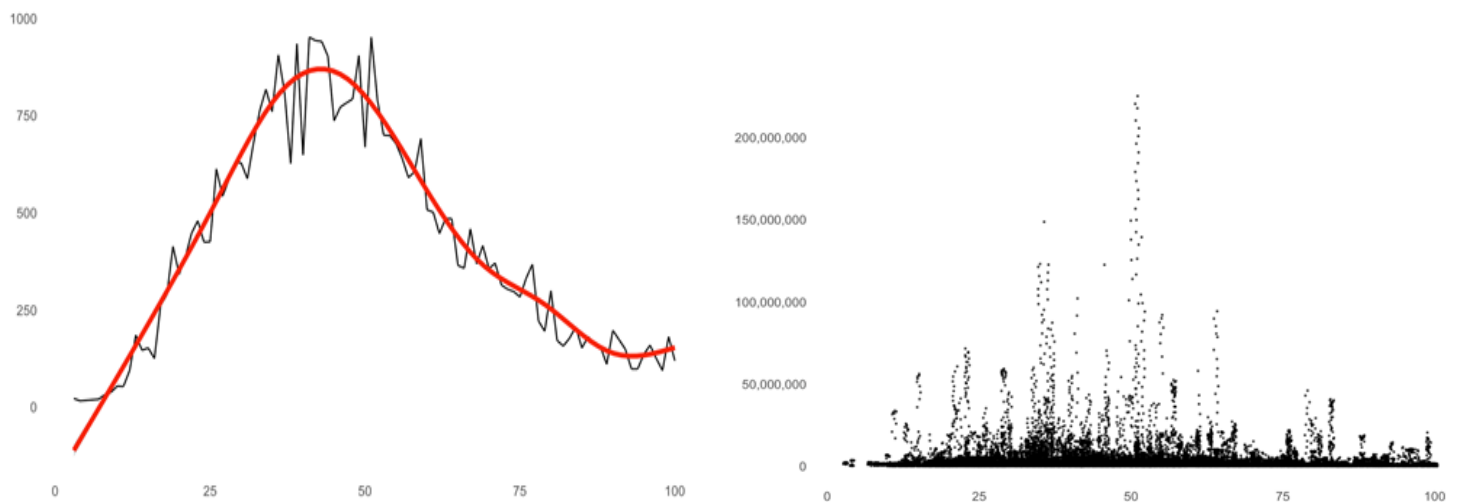
The highest number of views appeared on videos where the title was less than 50 characters long. Unloaders' mostly chose titles between 25-50 characters long.

CATEGORICAL ANALYSIS
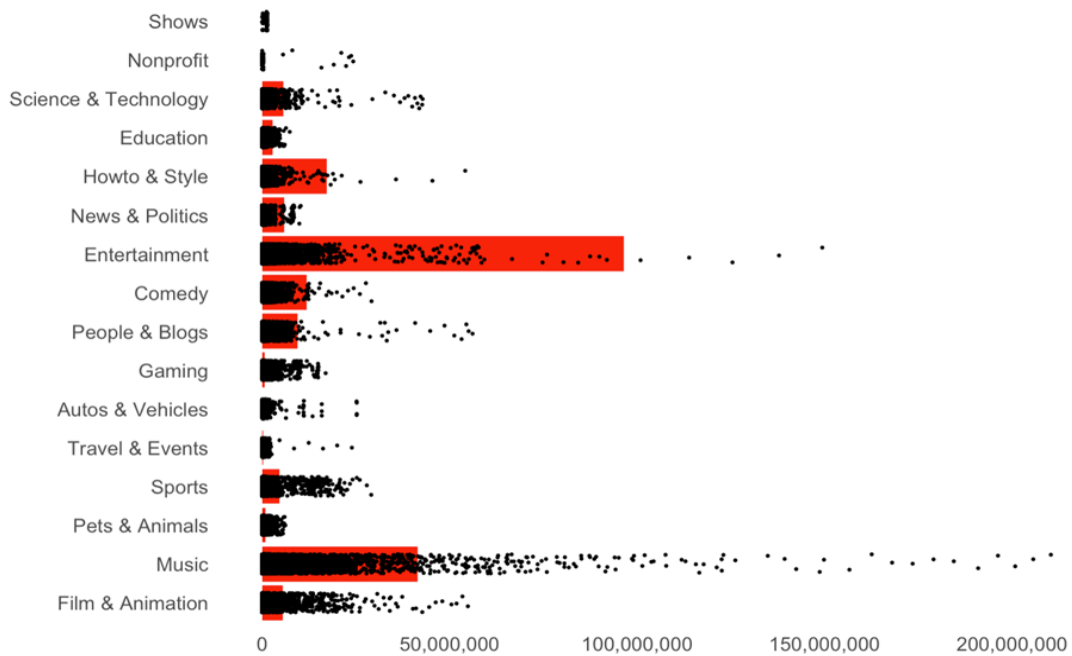
- Categories of Entertainment and Music have the highest number of trending videos. However, Music has a higher number of views as compared to Entertainment.
- Film and animation have a lower number of trending videos as compared to Entertainment but have comparable views.
- If you are a musician or an entertainer, your videos are more likely to be trending as compared to any other type of video.

LIKES - DISLIKES RATIO
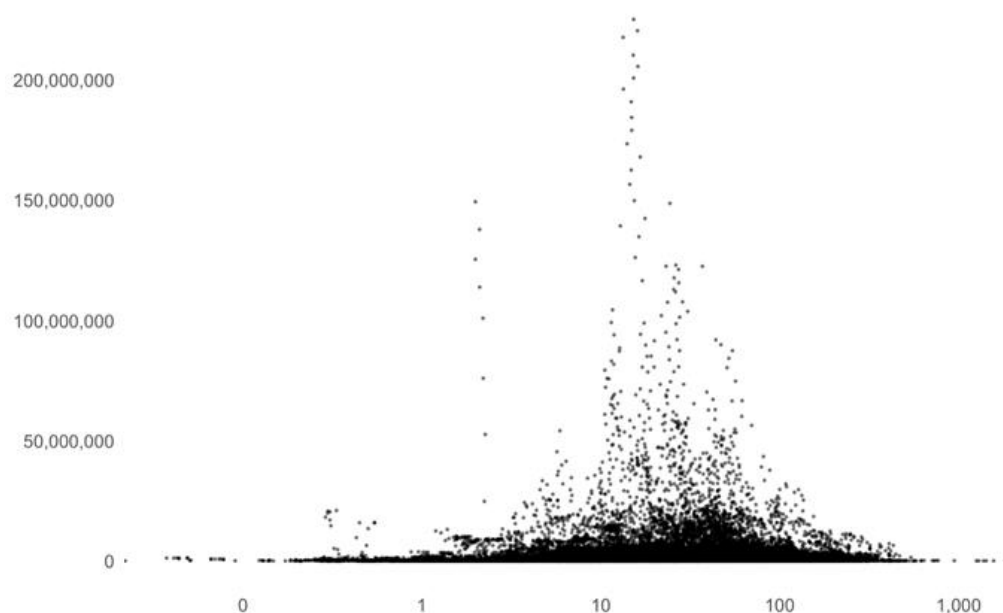
- If the L/D ratio is less than 1, more people disliked the video. If greater than 1, more people liked the video. If equal to 1, an equal number of people liked and disliked the video. A video is controversial when the L/D ratio is less than 1 or equal to 1.

- If L/D = 10-100 we see the highest views.

- If the L/D ratio is less than 10, the number of views declines. The more controversial a video is, the less number of views it has.

However, videos with higher L/D ratios (>100) coincided with fewer views. It seems that slightly controversial videos may be viewed more than videos that are not controversial at all.

ANALYTICAL TOOLS

YOUTUBE STUDIO AND VAIZLE

The social media analytical tools that will be used in this project are YouTube Analytics and Vaizle.

- YouTube provides an analytics tool called "YouTube Analytics" that allows users to monitor and analyze the performance of their YouTube channel and videos. This tool provides valuable insights into the audience, engagement, and revenue of a YouTube channel. YouTube Analytics is an essential tool for any YouTube creator who wants to understand their audience and improve the performance of their channel.
- Vaizle is a social media analytics tool that provides insights into the performance of social media accounts, including Facebook, Instagram, Twitter, LinkedIn, and YouTube. It offers a range of features to help businesses and marketers measure and improve their social media presence. Vaizle is a powerful social media analytics tool that can help businesses and marketers understand their social media performance and make data-driven decisions to improve their strategy.

Overall, this project will demonstrate the power of Youtube Analytics and Vaizle in understanding the popularity of videos on YouTube and provide businesses with valuable insights to improve their YouTube strategy in the context of social media analytics.

YOUTUBE STUDIO:

YouTube Studio is a tool developed by YouTube that provides creators with a set of analytics and tools to manage their channels. It is the new and improved version of the old Creator Studio, and it's designed to help creators better understand their audience and content performance on YouTube. YouTube Studio uses a variety of metrics to analyze a channel's performance, including:

- **Views and Watch Time:** The tool provides insights into how many views your videos are receiving, and how much watch time they are generating.
- **Engagement Metrics:** YouTube Studio provides data on how viewers are engaging with your content, including likes, comments, shares, and subscriptions.
- **Demographics:** YouTube Studio provides data on the age, gender, and geographic location of your viewers.
- **Revenue and Monetization:** If you are monetizing your channel, YouTube Studio provides data on your earnings, as well as insights into ad performance and CPMs.
- **Real-time Analytics:** YouTube Studio offers real-time analytics, which means you can see how your videos are performing in real-time and make adjustments to your strategy accordingly.

Overall, YouTube Studio is a powerful tool for creators to track their performance, analyze audience behavior, and make informed decisions about their content strategy. It provides a wealth of data and insights that can help creators to grow their channels and connect with their audience.

CHANNEL NAME: 'Katy sisters'
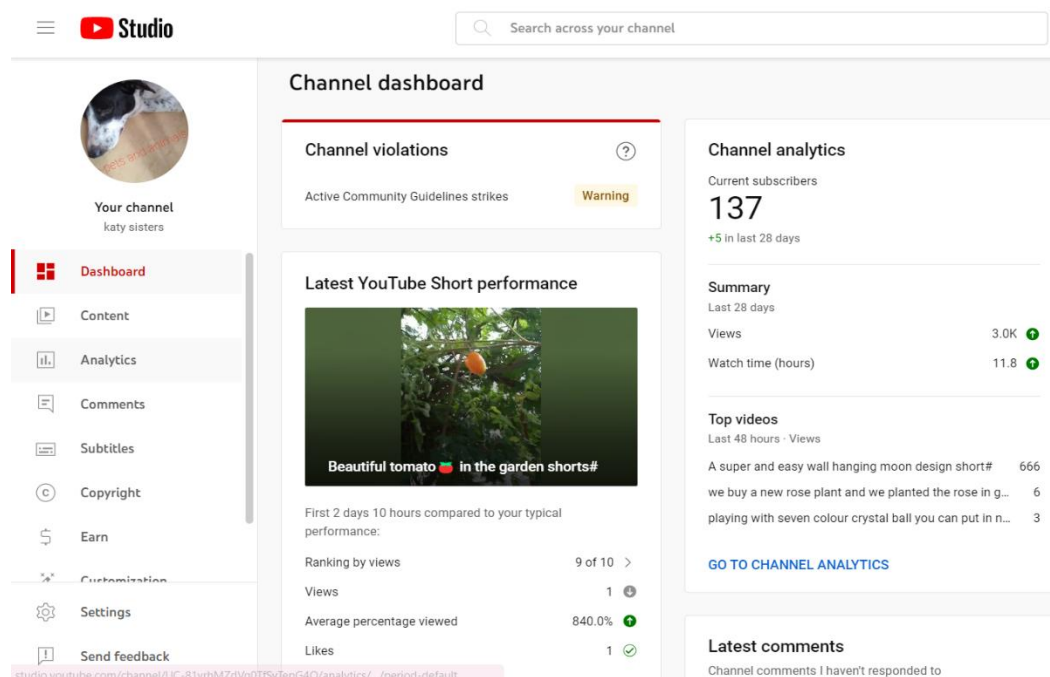
RECENTS:

Latest YouTube Short performance

Beautiful tomato 🍅 in the garden shorts#

First 2 days 10 hours compared to your typical performance:

Ranking by views	9 of 10	>
Views	1	⬇
Average percentage viewed	840.0%	⬆
Likes	1	✓

GO TO VIDEO ANALYTICS

SEE COMMENTS (1)

Top recent videos
Views

First 2 days 10 hours:

1	One Drawing, But in 4 Different styles (Shorts#)	2.2K
2	do you want to see the results ?? #shorts	2.1K
3	wednesday movie ENID dres for barbie	2.0K
4	wednesday adds	22
5	Happy new everyone 🥳🥳	16
6	Merry Christmas everybody	11
7	marry Christmas for all	6
8	result 🤟☝	5
8	cute paw #short	5
9	Beautiful tomato 🍅 in the garden shorts#	1

1

9   Typical   2.1K

OVERVIEW OF CHANNEL CONTENT

≡ ▶ Studio	Search across your channel				?	CREATE	

Channel content

Your channel
katy sisters

Videos   Live   Posts   Playlists   Podcasts

Filter

	Video	Visibility	Restrictions	Date ↓	Views	Comments	Likes (vs. dislikes)
☐	A super and easy wall hanging moon design s... / Add description	👁 Unlisted	None	Mar 23, 2023 Uploaded	665	1	76.5% 13 likes
☐	Beautiful tomato 🍅 in the garden shorts# / Add description	👁 Public	None	Mar 22, 2023 Published	1	1	100.0% 1 like
☐	One Drawing, But in 4 Different styles (Shorts#) / Add description	👁 Public	Copyright	Mar 2, 2023 Published	2,230	1	91.8% 45 likes
☐	result 🤟☝ / Add description	👁 Public	None	Jan 15, 2023 Published	17	0	100.0% 3 likes
☐	do you want to see the results ?? #shorts / Add description	👁 Public	None	Jan 15, 2023 Published	2,139	3	79.5% 31 likes

Dashboard
Content
Analytics
Comments
Subtitles
Copyright
Earn
Customization
Settings

CHANNEL ANALYTICS:

Overview Content Audience Research

Your channel got 3,012 views in the last 28 days

Views	Watch time (hours)	Subscribers
3.0K ⬆	**11.8** ⬆	**+5** ⬆
1.8K more than usual	*6.8 more than usual*	*400% more than previous 28 days*

```
                                                      2,250
                                                      1,500
                                                        750
                                                          0
Feb 24, 20...  Mar 1, 2023  Mar 5, 2023  Mar 10, 2023  Mar 14, 2023  Mar 19, 2023  Mar 23,...
```

Channel growth
Total subscribers

Feb 24 – Mar 23, 2023
Last 28 days ▼ ⌄

Mar 8, 2023
135

```
                                                                        137
                                                                        135
                                                                        133
                                                                        131
      Feb 28, 2023   Mar 6, 2023   Mar 12, 2023   Mar 18, 2023   Now
```
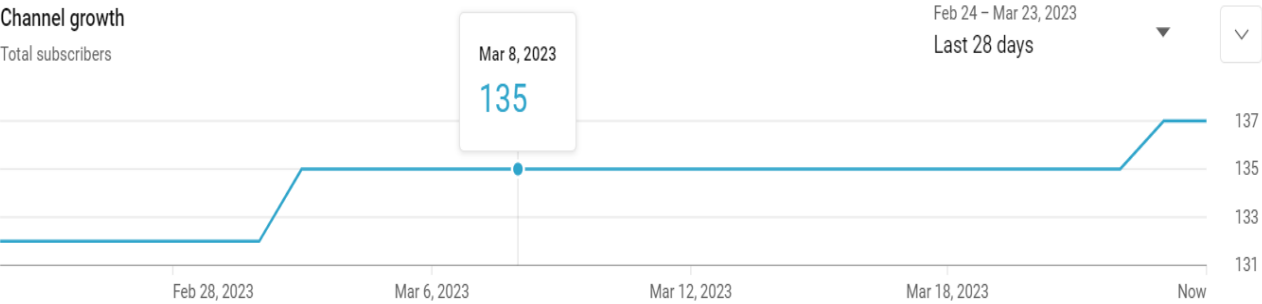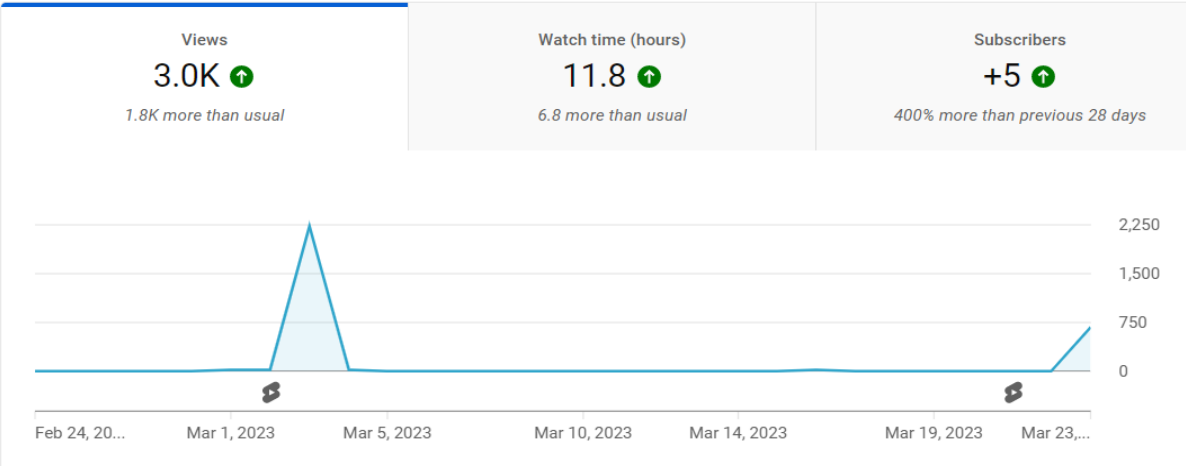
CONTENT:

How viewers find you
Views · Last 28 days

Traffic Sources

91.7%
Percentage of viewers from shorts feed

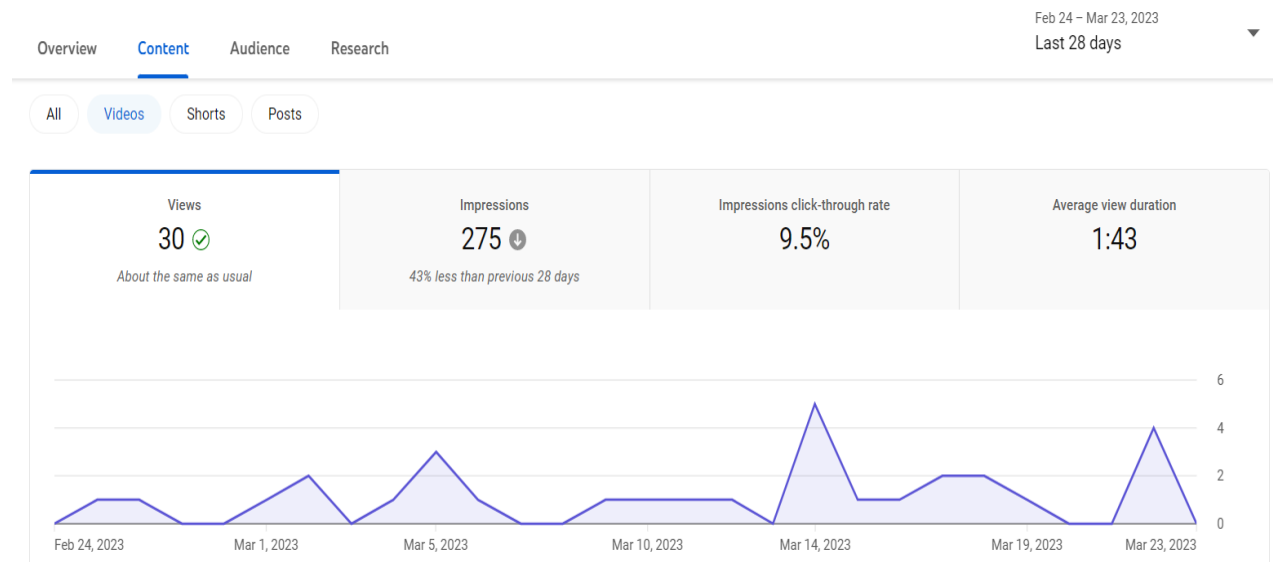|		
Shorts feed		91.7%
YouTube search	•	5.5%
Channel pages	•	1.6%
Sound pages	•	1.0%
Other YouTube features	•	0.2%
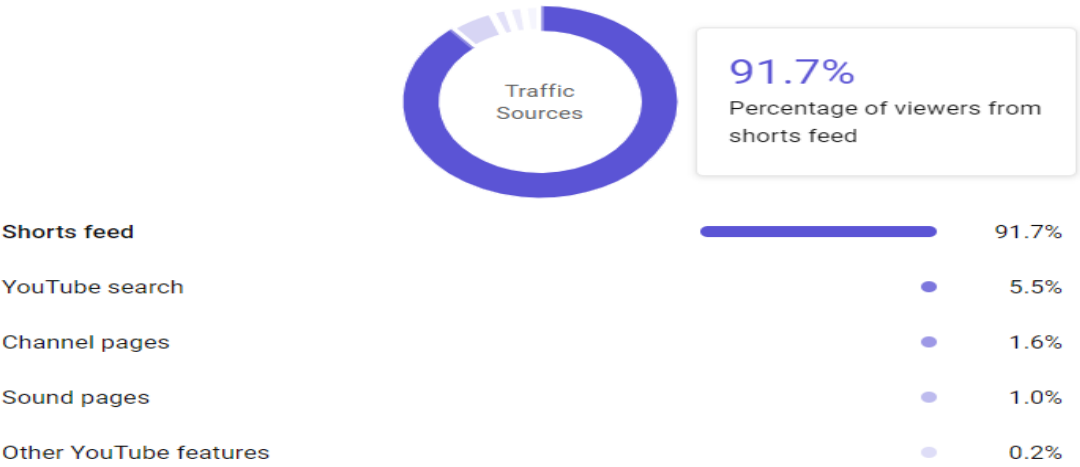
- Shorts feed is the primary source of views, generating 2,761 views with an average view duration of 13 seconds and a total watch time of 10.1 hours.
- YouTube search is responsible for 165 views, with a 5.5% click-through rate and a total watch time of 1.3 hours.
- Channel pages are responsible for 49 views, with a 1.6% click-through rate and a total watch time of 0.2 hours.
- Sound pages are responsible for 29 views, with an average view duration of 11 seconds and a total watch time of 0.1 hours.
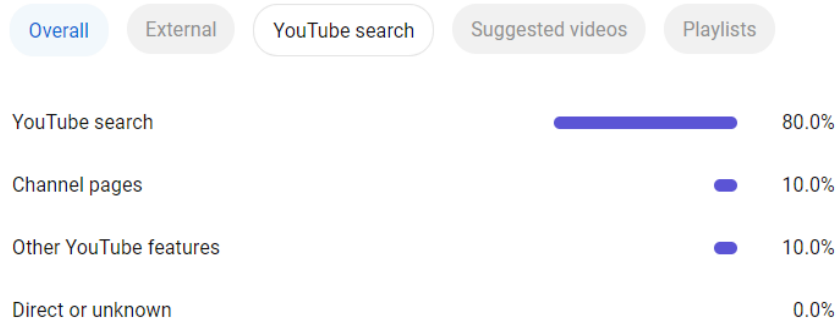
Based on these findings, it's clear that optimizing short-form content and optimizing content for search are effective ways to attract more viewers. Additionally, creating a visually appealing and easy-to-navigate channel page can increase engagement with your content.
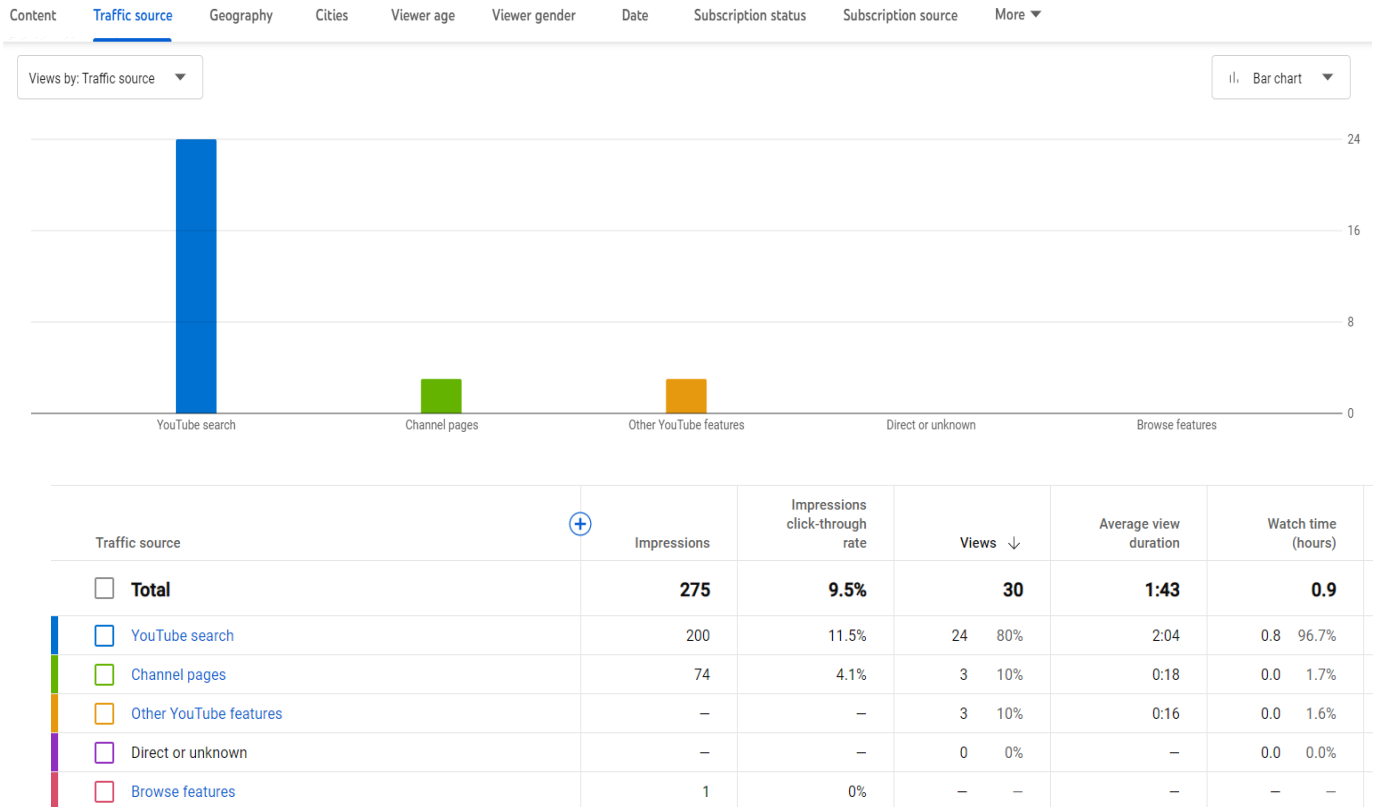
I)   VIDEOS

| Overview | Content | Audience | Research | | Feb 24 – Mar 23, 2023 Last 28 days |

Views	Impressions	Impressions click-through rate	Average view duration
30 ✓	275 ⬇	9.5%	1:43
About the same as usual	43% less than previous 28 days		

How viewers find your videos
Views · Last 28 days

YouTube search	80.0%
Channel pages	10.0%
Other YouTube features	10.0%
Direct or unknown	0.0%

Views by: Traffic source ▾   Bar chart ▾

Traffic source	Impressions	Impressions click-through rate	Views ↓		Average view duration	Watch time (hours)	
Total	**275**	**9.5%**	**30**		**1:43**	**0.9**	
YouTube search	200	11.5%	24	80%	2:04	0.8	96.7%
Channel pages	74	4.1%	3	10%	0:18	0.0	1.7%
Other YouTube features	–	–	3	10%	0:16	0.0	1.6%
Direct or unknown	–	–	0	0%	–	0.0	0.0%
Browse features	1	0%	–	–	–	–	–

- Total views for the last 28 days is 275.
- Impressions click-through rate is 9.5%, which means that out of all the times your videos were shown on YouTube, 9.5% of the viewers clicked on them to watch.
- The majority of views (200) are coming from YouTube search, with an 11.5% click-through rate. This suggests that optimizing the video titles, tags, and descriptions for search can be an effective way to increase visibility and attract more viewers to your content.
- Channel pages are responsible for 74 views, with a 4.1% click-through rate. It's important to make sure that your channel page is organized and visually appealing, and that your content is easy to find and navigate.
- Other YouTube features are responsible for 3 views, with a 10% click-through rate. This could refer to features such as suggested videos or the YouTube homepage.
- No views have been generated through direct or unknown sources in the last 28 days.
- There is only 1 view from browse features, but no information is available on the click-through rate, average view duration, or watch time.

Based on this information, it appears that optimizing your videos for search could be a useful strategy to increase views and attract more viewers to your content. Additionally, making sure that your channel page is visually appealing and easy to navigate could also help to increase

engagement with your content. It's also worth considering exploring other YouTube features that could drive traffic to your videos.

II)   SHORTS
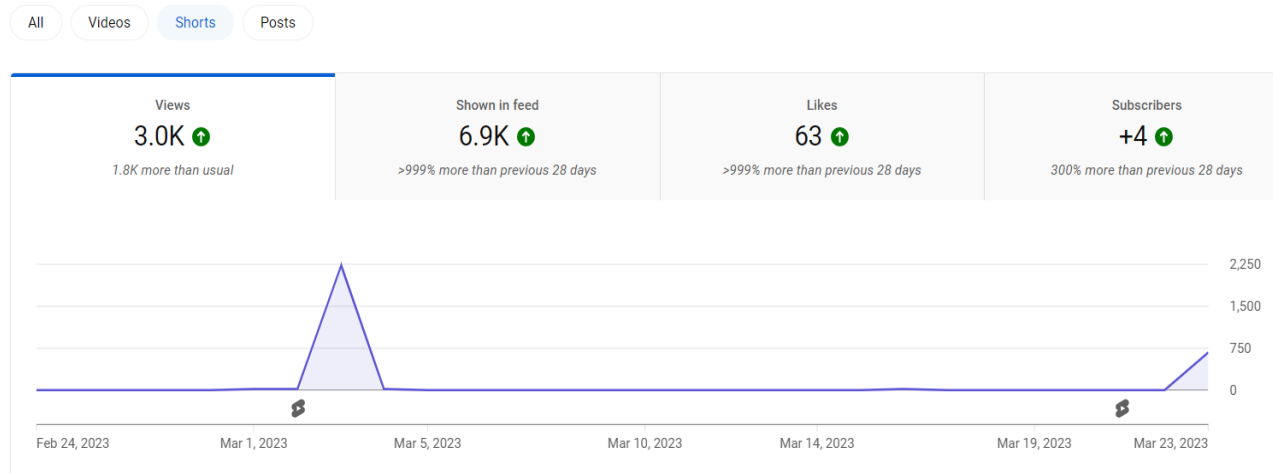
- Shorts have a higher view count (2,982) compared to videos (30).
- The average view duration for Shorts is shorter (13 seconds) compared to videos (1 minute 43 seconds).
- However, Shorts have a higher average percentage viewed (86.3%) compared to videos (7.6%).
- Shorts have a higher watch time (10.9 hours) compared to videos (0.9 hours).
- Overall, the total watch time for both Shorts and videos combined is 11.8 hours.
- The average view duration for all content is 14 seconds, and the average percentage viewed is 49.1%.

We can conclude that Shorts are performing better in terms of view count, average percentage viewed, and watch time compared to Videos. However, Videos have a longer average view duration compared to Shorts. The high average percentage viewed for Shorts suggests that the audience is highly engaged with the content and is watching a significant portion of the video. This, in turn, results in higher watch time for Shorts compared to Videos.

On the other hand, the longer average view duration for Videos suggests that the audience is spending more time watching these videos, which may indicate that they are more interested in the content. However, the low average percentage viewed for Videos suggests that the audience is not watching a significant portion of the video.

Overall, it's important to track a range of metrics to fully understand the performance of the content. While Shorts are performing better in some areas, it's important to identify areas of improvement for both Shorts and Videos to maximize the engagement and retention of the audience.
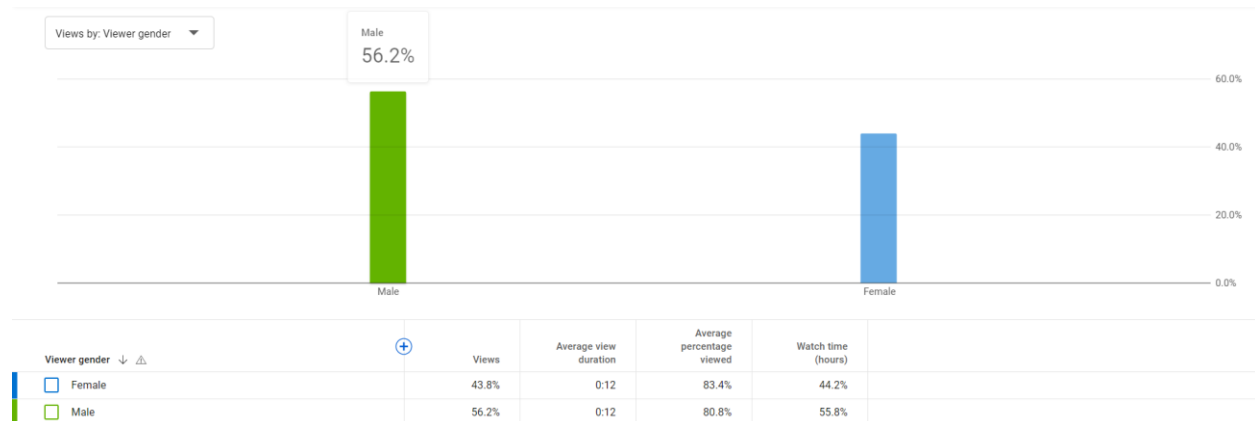
VIEWER AGE
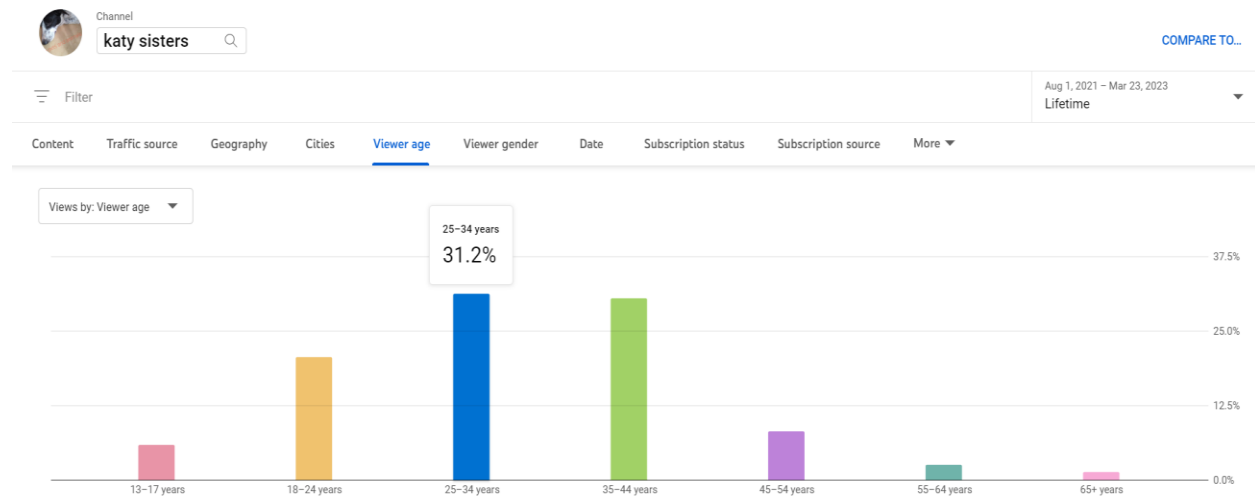
- YouTube Studio provides data on the age range of your viewers, which can be accessed under the "Audience" tab. This feature allows you to see the percentage of your audience that falls within each age bracket, ranging from 13-17 years old to 65+.
- Knowing the age range of your viewers can be helpful in understanding your audience better and tailoring your content to their interests. For example, if you find that a significant portion of your audience is under the age of 18, you may want to create content that is appropriate for that age group and avoid topics or language that may not be suitable for a younger audience. In our analytics it is clearly depicted that people from the age range 25-34 watch the content the most (31.2%) followed by 35-44(30.4%).
- Additionally, understanding the age range of your audience can help you make informed decisions about advertising and brand partnerships. Advertisers often target specific age groups, and if you know the age range of your audience, you can ensure that your channel is a good match for potential brand partnerships.
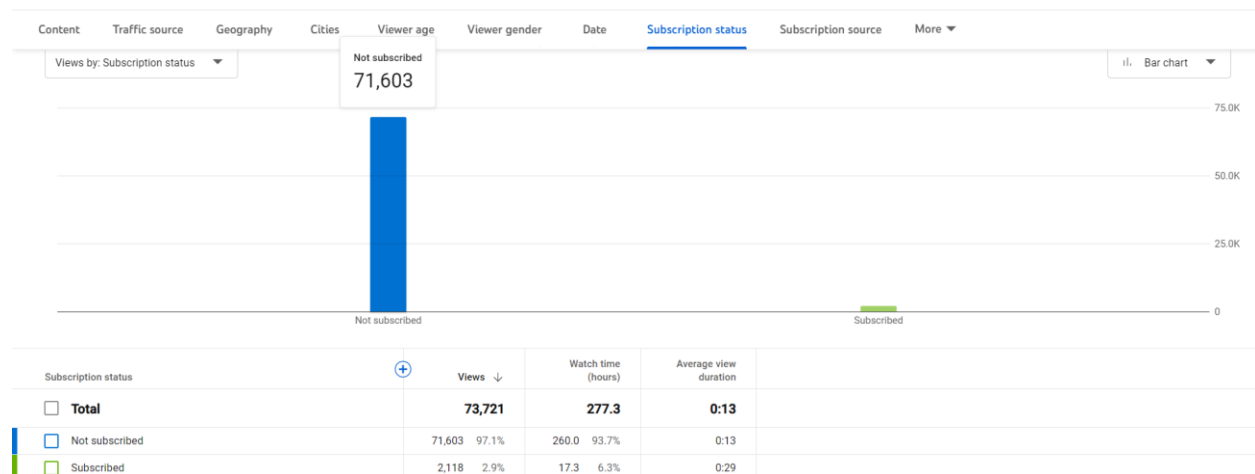
Viewer age	Impressions	Views ↓	Average view duration	Average percentage viewed	Watch time (hours)
25–34 years	–	31.2%	0:12	86.6%	31.7%
35–44 years	–	30.4%	0:12	70.5%	31.5%
18–24 years	–	20.6%	0:11	84.1%	18.7%
45–54 years	–	8.2%	0:12	90.5%	8.3%
13–17 years	–	5.8%	0:11	84.1%	5.3%
55–64 years	–	2.6%	0:14	97.7%	3.0%
65+ years	–	1.3%	0:14	101.0%	1.5%

VIEWER GENDER:

Viewer gender ↓ ⚠		Views	Average view duration	Average percentage viewed	Watch time (hours)	
☐ Female		43.8%	0:12	83.4%	44.2%	
☐ Male		56.2%	0:12	80.8%	55.8%	

- The majority of the channel's viewers are male (56.2%), followed by female viewers (43.8%). The average view duration for both genders is 12 seconds, and the average percentage viewed is 80-83%. In terms of watch time, male viewers have a slight edge, accounting for 55.8% of the total watch time compared to 44.2% for female viewers. There is no information available on the user-specified gender of viewers.

SUBSCRIPTION STATUS:

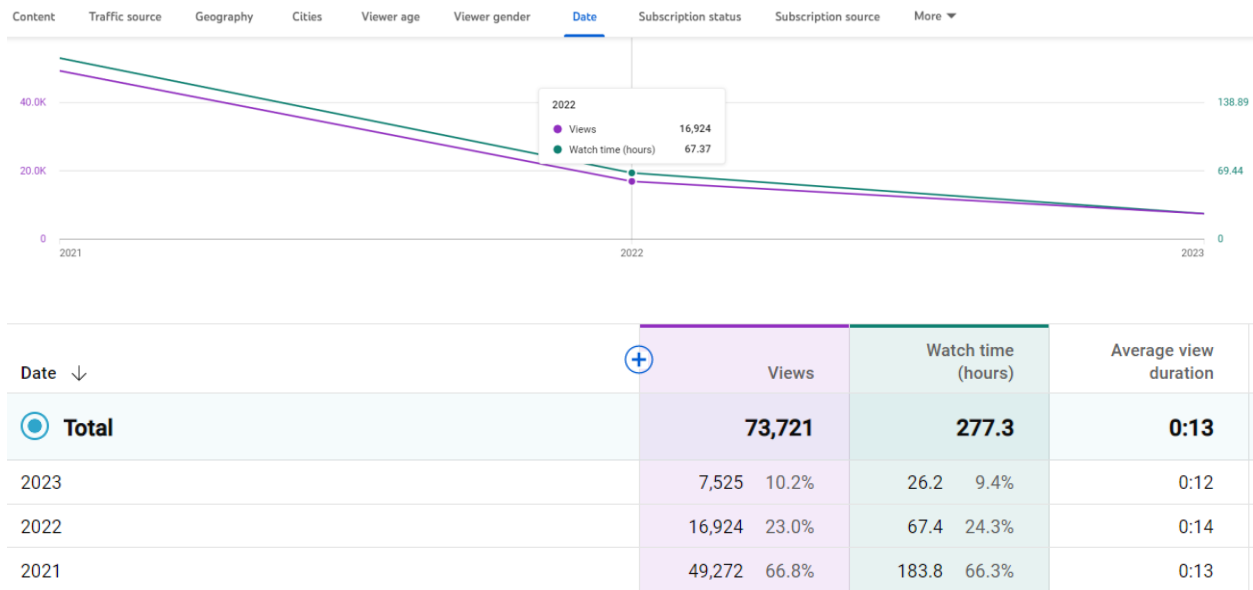| Subscription status		Views ↓		Watch time (hours)		Average view duration	
☐ **Total**		73,721		277.3		0:13	
☐ Not subscribed		71,603	97.1%	260.0	93.7%	0:13	
☐ Subscribed		2,118	2.9%	17.3	6.3%	0:29	

- YouTube Studio provides a chart that displays the subscription status of your viewers, which can be accessed under the "Audience" tab. This chart shows the percentage of your viewers who are subscribed to your channel, as well as the percentage who are not subscribed.
- The subscription status chart is a useful tool for understanding the loyalty of your audience and the effectiveness of your subscription-based strategies. If you find that a large percentage of your viewers are subscribed, it indicates that your channel is producing

content that resonates with your audience, and they are interested in seeing more of your content.

- Additionally, the subscription status chart can help you identify areas where you may need to improve your subscription-based strategies. If you find that a large percentage of your viewers are not subscribed, it may be a sign that your call-to-action for subscribing needs to be more prominent or compelling.

DATE:

| Content | Traffic source | Geography | Cities | Viewer age | Viewer gender | Date | Subscription status | Subscription source | More ▼ |

2022	
● Views	16,924
● Watch time (hours)	67.37

40.0K   138.89

20.0K   69.44

0   0

2021   2022   2023

Date ↓	⊕	Views	Watch time (hours)	Average view duration
◉ **Total**		**73,721**	**277.3**	**0:13**
2023		7,525 10.2%	26.2 9.4%	0:12
2022		16,924 23.0%	67.4 24.3%	0:14
2021		49,272 66.8%	183.8 66.3%	0:13

The performance of the channel over the last three years.
- In 2021, the channel had the highest number of views (49,272) and watch time (183.8 hours), with an average view duration of 0:13 minutes.
- In 2022, the channel had 16,924 views, with a watch time of 67.4 hours and an average view duration of 0:14 minutes.
- In 2023, the channel had 7,525 views, with a watch time of 26.2 hours and an average view duration of 0:12 minutes.

It's worth noting that the number of views and watch time have decreased from 2021 to 2023. This may be due to various factors, such as changes in the YouTube algorithm, shifts in viewer preferences, or changes in the content being produced. It's important to analyze the data and identify areas for improvement in order to continue growing the channel's audience and engagement.

SUBSCRIPTION SOURCE:
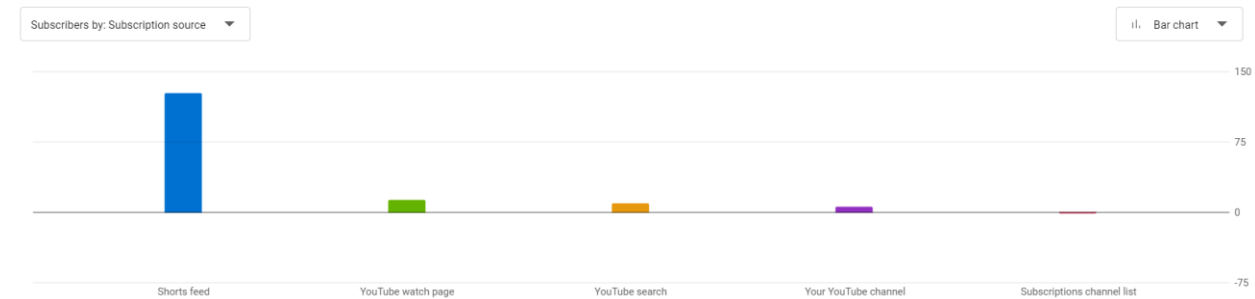
Subscription source	Subscribers ↓		Subscribers gained		Subscribers lost	
Total	**137**		**180**		**43**	
Shorts feed	127	92.7%	132	73.3%	5	11.6%
YouTube watch page	13	9.5%	22	12.2%	9	20.9%
YouTube search	9	6.6%	13	7.2%	4	9.3%
Your YouTube channel	6	4.4%	10	5.6%	4	9.3%
Subscriptions channel list	-1	-0.7%	0	0.0%	1	2.3%
Closed accounts	-1	-0.7%	0	0.0%	1	2.3%
YouTube home	-1	-0.7%	0	0.0%	1	2.3%
Other	-17	-12.4%	1	0.6%	18	41.9%

- From the subscription source data, we can see that the Shorts feed is the primary source of subscribers, accounting for 92.7% of new subscribers gained, although there were also 5 subscribers lost from this source.
- The YouTube watch page and YouTube search also contributed to new subscribers, with 9.5% and 6.6% respectively.
- The YouTube channel source accounted for 4.4% of new subscribers, while the Subscriptions channel list, Closed accounts, and YouTube home sources each resulted in a net loss of subscribers.
- Finally, the Other source resulted in a significant loss of subscribers, accounting for 12.4% of lost subscribers, but also a small gain of 0.6% of new subscribers. Overall, it appears that creating and optimizing short-form content for the Shorts feed could be an effective way to attract new subscribers to the channel.
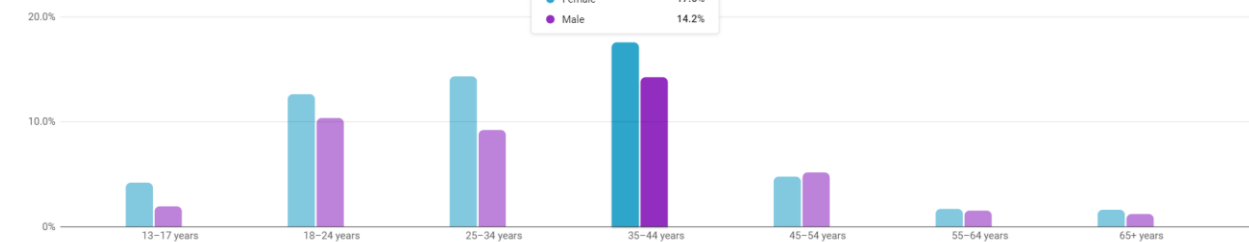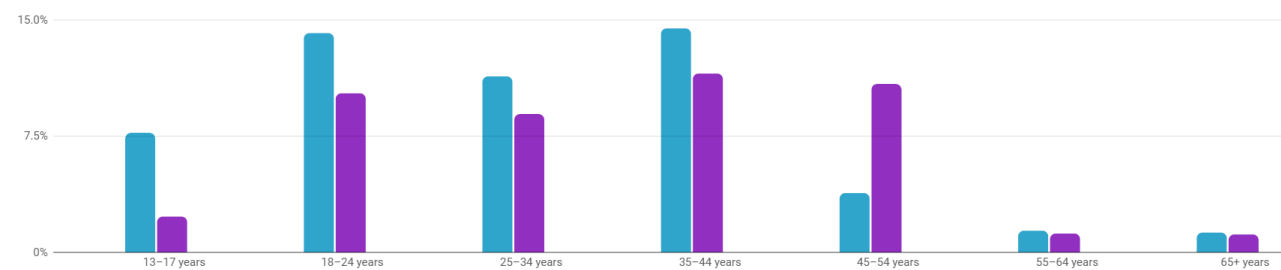
Audience by age and gender

Filter

Feb 24 – Mar 23, 2023
Last 28 days

◉ Views ◯ Watch time (hours)

35–44 years	
Total	31.8%
● Female	17.6%
● Male	14.2%

20.0%

10.0%

0%

13–17 years | 18–24 years | 25–34 years | 35–44 years | 45–54 years | 55–64 years | 65+ years

◯ Views ◉ Watch time (hours)

15.0%

7.5%

0%

13–17 years | 18–24 years | 25–34 years | 35–44 years | 45–54 years | 55–64 years | 65+ years

Viewer age	Views			Watch time (hours)		
	Female	Male	User-specified	Female	Male	User-specified
Total	**56.6%**	**43.4%**	**0%**	**54.0%**	**46.0%**	**0%**
13–17 years	4.2%	1.9%	–	7.7%	2.3%	–
18–24 years	12.6%	10.3%	–	14.1%	10.3%	–
25–34 years	14.3%	9.2%	–	11.4%	8.9%	–
35–44 years	17.6%	14.2%	–	14.4%	11.5%	–
45–54 years	4.7%	5.2%	–	3.8%	10.8%	–
55–64 years	1.7%	1.5%	–	1.4%	1.2%	–
65+ years	1.6%	1.2%	–	1.2%	1.1%	–

- Based on the viewer age and gender data, it appears that the majority of the audience is female, accounting for 56.6% of views and 54.0% of watch time. The largest age group among viewers is 35-44 years, accounting for 17.6% of views and 14.4% of watch time. The next largest age group is 25-34 years, accounting for 14.3% of views and 11.4% of watch time. It's important to keep these demographic trends in mind when creating and promoting your content, as it can help you tailor your content to better meet the preferences of your audience.

Impressions and how they led to watch time

Data available Feb 24 – Mar 23, 2023 (28 days)

Impressions	**812**
	4.7% from YouTube recommending your content ⓘ
	5.7% click-through rate
Views from impressions	**46**
	1:14 average view duration
Watch time from impressions (hours)	**0.95**

GEOGRAPHY:

Views by: Geography ▾   ⊪ Bar chart ▾
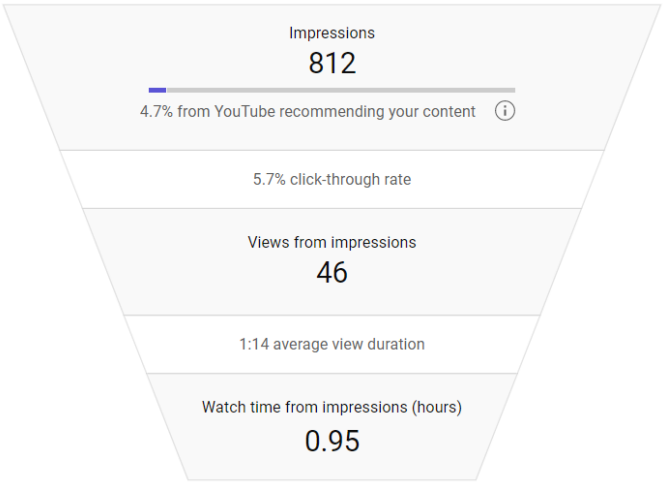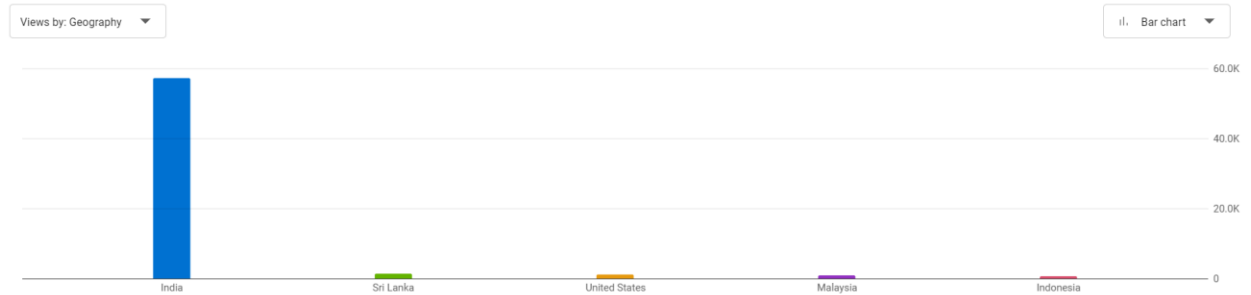
Geography	Views ↓		Watch time (hours)		Average view duration
☐ **Total**	**73,721**		**277.3**		**0:13**
☐ India	57,099	77.5%	206.3	74.4%	0:13
☐ Sri Lanka	1,394	1.9%	5.0	1.8%	0:12
☐ United States	1,057	1.4%	4.6	1.6%	0:15
☐ Malaysia	731	1.0%	2.5	0.9%	0:12
☐ Indonesia	601	0.8%	2.0	0.7%	0:11

Based on the data provided, the video seems to have the highest viewership in India with 77.5% of total views and 74.4% of total watch time. Sri Lanka, the United States, Malaysia, and Indonesia are the other top countries with viewership ranging from 0.8% to 1.9% of total views.

VAIZEL

Vaizle is a powerful tool for social media analytics that can help businesses and individuals make data-driven decisions to improve their social media performance. It provides a wealth of features that enable users to track their performance, monitor competitors, and generate insights to inform their social media strategies.

To analyze a YouTube channel in Vaizle, you can follow these steps:
1. Go to the Vaizle website and sign up for an account.
2. Once you have created an account, select the "YouTube" option from the menu on the left-hand side of the dashboard.
3. Click on the "Channels" tab to access the YouTube channel analysis feature.
4. Enter the YouTube channel URL that you want to analyze in the search bar provided.
5. Vaizle will then fetch the data related to the channel, including the number of subscribers, views, engagement rate, and other metrics.
6. You can also access the "Videos" tab to view the most viewed videos of the channel, along with their engagement metrics.
7. The "Audience" tab will give you insights into the demographic profile of the channel's audience, including their age, gender, and location.
8. You can use the "Competitors" tab to compare the channel's performance with that of its competitors.
9. Finally, you can generate reports and export the data for further analysis.

YouTube Ad Account

katy sisters

Analysis

Timeline

| 1 Month | 6 Month |

By

| Kaarthiga Sathian |

// Account Overview
Birds-eye view of your account performance.

// Subscriber Gain
Overview of Subscriber Gain

Total Subscribers ▾

Total Subscribers: 135
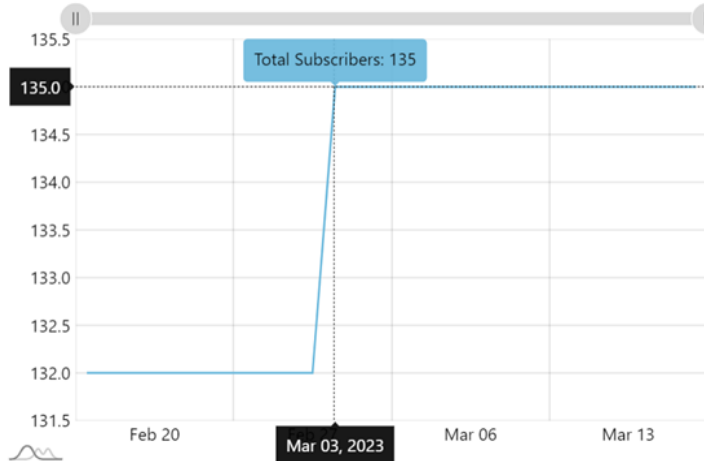
On 19th March Total
Subscribers increased **3.983%**
more than daily average.

The statement "On 19th March, Total Subscribers increased 3.983% more than daily average" means that on this day, the channel gained a higher number of subscribers compared to the average daily subscriber gain over a specified time period. This increase in subscriber gain could be due to various factors, such as the quality of the content, effective marketing strategies, or promotions. By analyzing the factors that contributed to this surge in subscribers, the creator can identify successful strategies to replicate this success and improve the overall growth of their channel.

// Subscriber Gain
Overview of Subscriber Gain

New Subscribers ▾
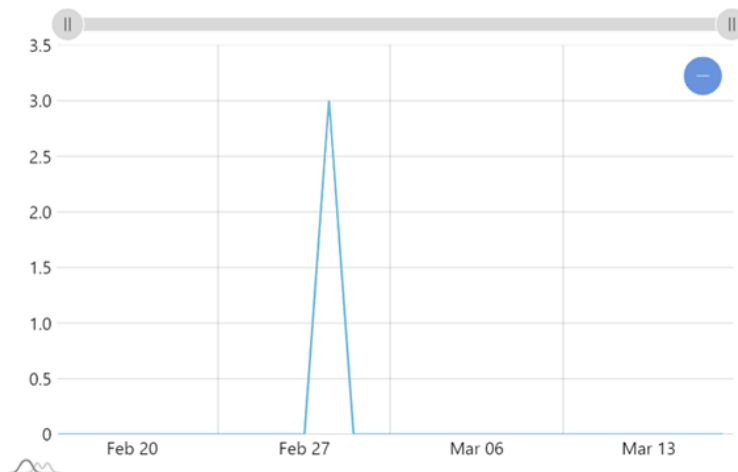
On 3rd March New
Subscribers increased **600%**
more than daily average.

// Discoverability
Get insights of how viewrs find your videos

On SHORTS You got **641.63%** more views than average Discoverability.
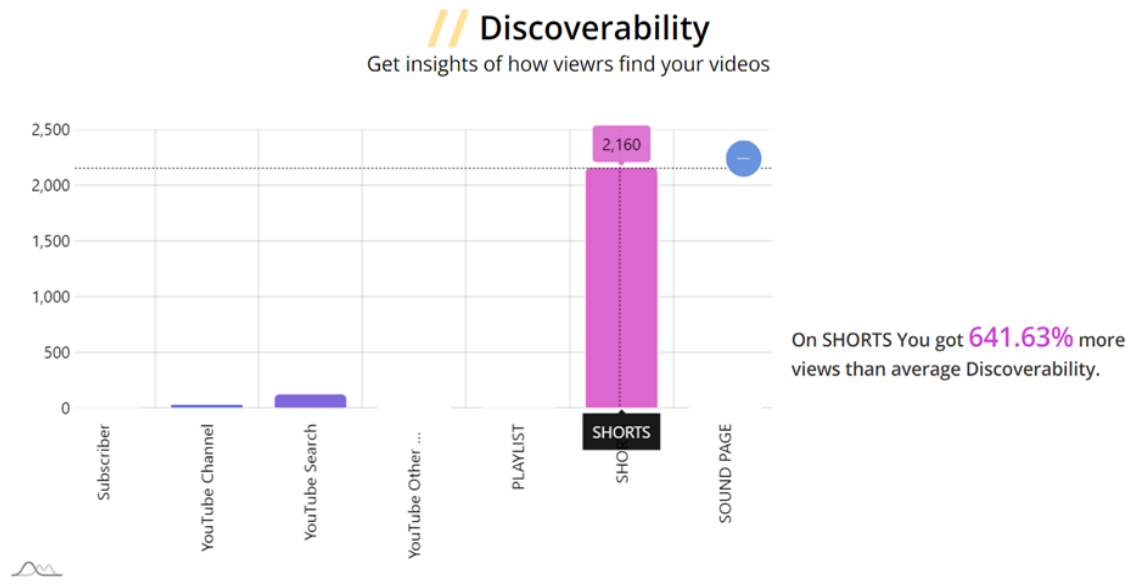
The statement "On SHORTS, You got 641.63% more views than average Discoverability" means that the video received significantly higher views compared to the average discoverability rate of the channel on YouTube Shorts.

In Vaizle, the bar graph for this data shows the average discoverability rate of the channel on YouTube Shorts over a specified time period, with a bar representing the number of views received by the video in question. The bar representing the views received by the video would be significantly higher than the average discoverability rate, indicating a higher level of visibility and engagement with viewers.

// Views
Detail insights into YouTube video views

Views ▾

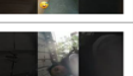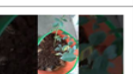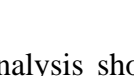On 3rd March You got **569.657%** more Views than average daily Views.
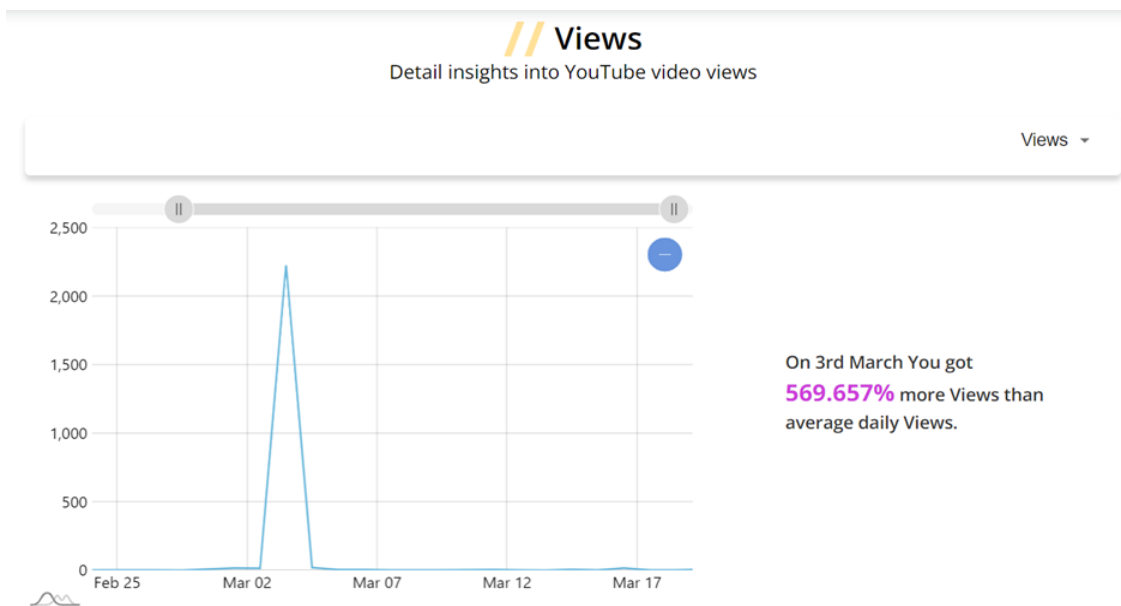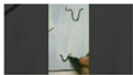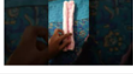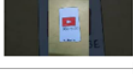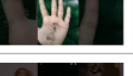
The statement "On 3rd March, You got 569.657% more views than average daily views" is an indication that the video received significantly higher views on that day compared to the average number of daily views for the channel. This spike in views could be due to a variety of factors, such as the content of the video, the timing of the upload, or a promotion or advertising campaign. By analyzing the factors that contributed to this spike in views, the creator can identify strategies to replicate this success in future videos and improve the overall performance of their channel.

On 26th February You got **127.778%** more Average View Duration than average daily Average View Duration.

On 3rd March You got **528.623%** more Watch Time than average daily Watch Time.
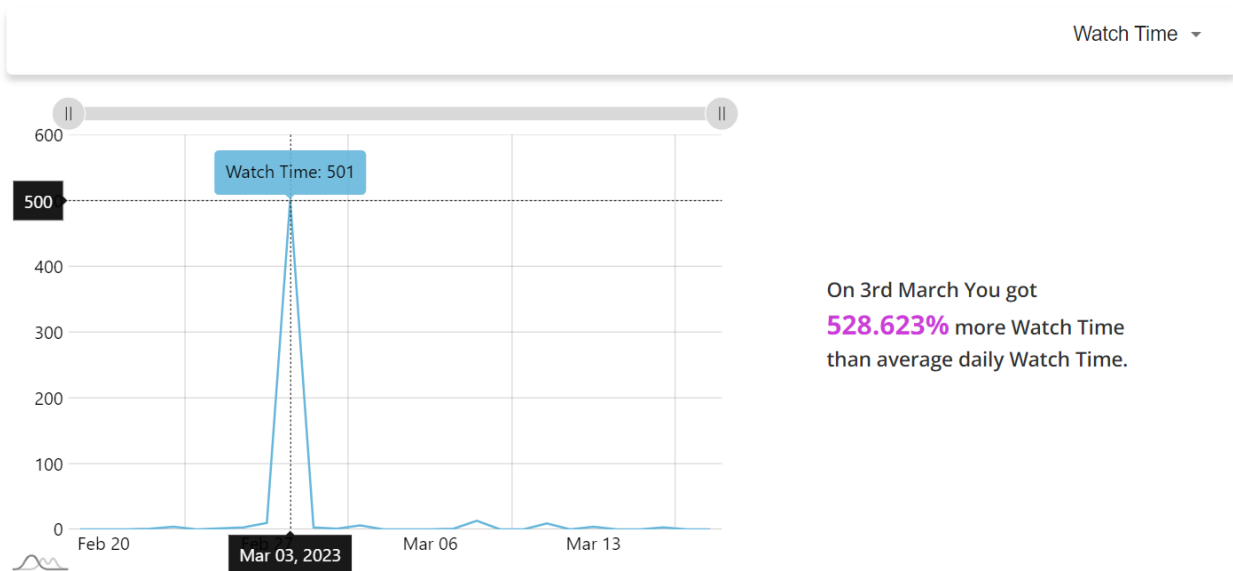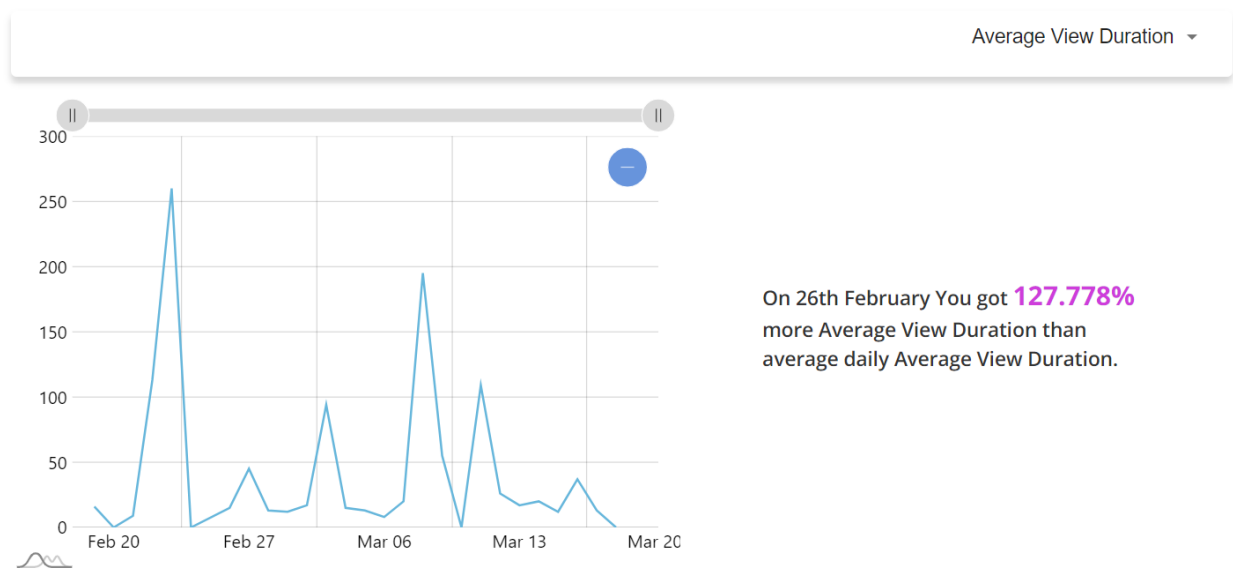
// Top Content
Get insights into thhe Top Content

| Video Thumbnail	Video Title	Views	Watch Time	Average View Duration	Subscribers
	One Drawing, But in 4 Different styles (Shorts#)	2,230	08:23:00	00:00:13	4
	playing with seven colour crystal ball you can put in normal water	29	00:50:00	00:01:43	0
	I made a teddy bear with handkerchief and rubber band 🧸 🧸	19	00:04:00	00:00:15	0
	i made a Lipstick 💄 with butter and food colour and keep it in the fridge for five to ten minutes	9	00:00:00	00:00:04	0
	25 September 2022	4	00:00:00	00:00:14	0
	this is bob say hi to him	4	00:00:00	00:00:13	0
	wednesday movie ENID dres for barbie	3	00:00:00	00:00:17	0
	cute paw #short	3	00:00:00	00:00:10	0
	result 🐾 ☝️	3	00:00:00	00:00:15	0
	we buy a new rose plant and we planted the rose in grow bag	3	00:00:00	00:00:15	0

This analysis shows the insights of all top content from the channel. The video title is "One Drawing But in 4 Different Styles (Shorts#)," indicating that the video is a YouTube Shorts video featuring a drawing created in four different styles. The average view count for the video is 2,230, meaning that the video has been viewed these many times on average. The video duration is 00:00:13, indicating that it is a very short video, which is typical for Shorts videos. Finally, the video has only 4 subscribers, which is a low number and indicates that the channel may be relatively new or has not yet built up a significant subscriber base.

By analyzing the performance of this video, the creator can gain insights into the type of content that resonates with their audience and identify strategies to replicate this success in future videos. They can also identify areas for improvement in terms of content, promotion, or other factors that may have contributed to the low number of subscribers for this video.

DEMOGRAPHICS
Analyze the Demographics of your viewers
GEOGRAPHY
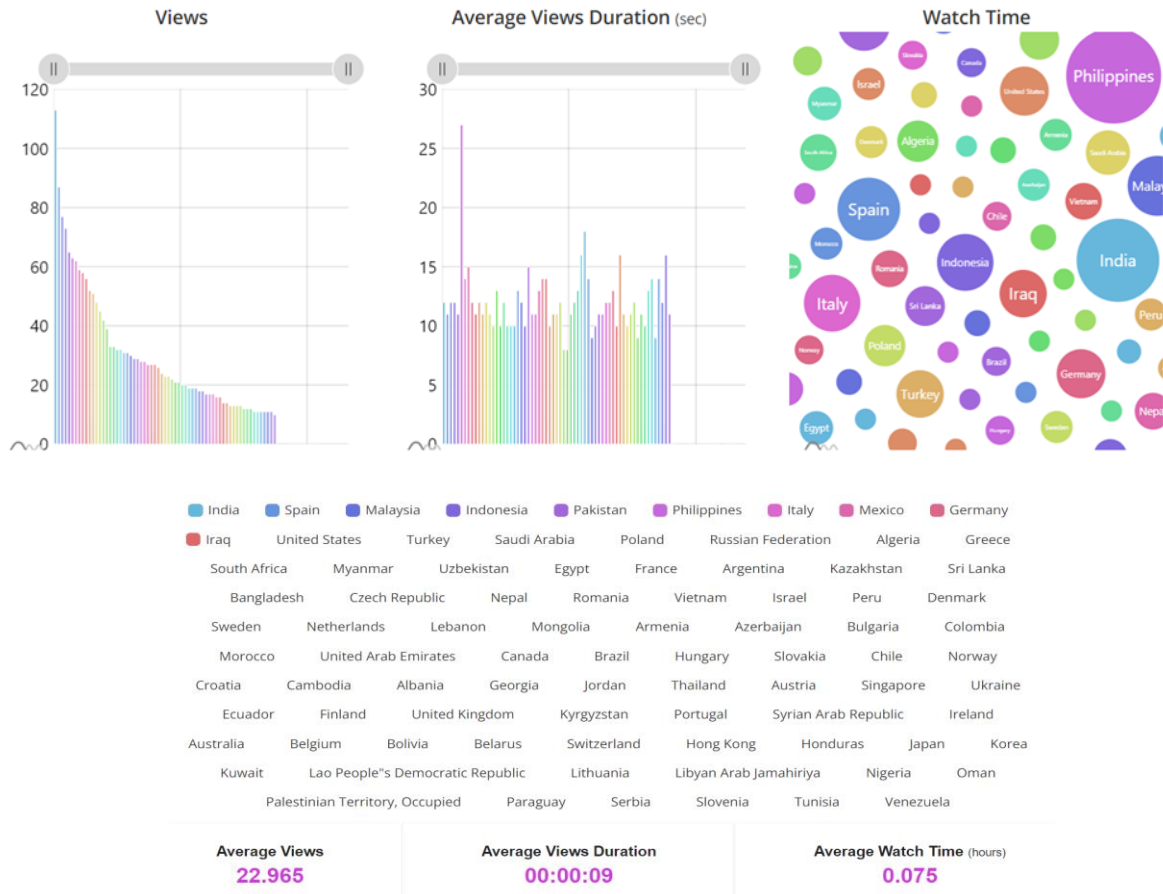
- The Geography Dashboard in Vaizle is a tool that allows creators to analyze the demographics of their viewers, specifically their location and viewing habits. The dashboard includes various metrics such as views, average view distribution, and watch time, which can be used to understand where a channel's audience is located and how engaged they are with the content.
- The views metric shows the total number of views from each location, allowing the creator to identify which regions have a high or low viewership. The average view distribution metric indicates the percentage of views that come from each location, providing a clear picture of where the majority of the channel's audience is located. The watch time metric shows the total amount of time viewers spend watching the channel's content from each location, indicating how engaged viewers are with the content.
- By analyzing this data, creators can gain insights into the demographics of their audience, such as their age, gender, and interests, and tailor their content accordingly to increase engagement and growth. They can also use this information to identify opportunities for expanding their reach and improving their content strategy in different regions or countries.
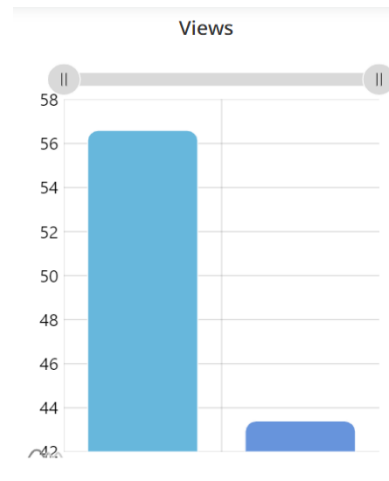
AGE | **GENDER**

AGE legend: 35-44, 25-34, 18-24, 45-54, 13-17, 55-64, 65-

GENDER legend: Female, Male

Views (Age chart)
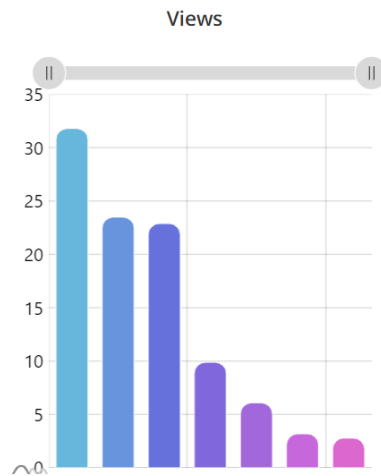
Average Views
14.314

Views (Gender chart)

Average Views
50

CONCLUSION:

In conclusion, our social media analytics project using R, YouTube Studio, and Vaizle tools provided us with valuable insights into the trending videos on YouTube. We were able to extract and analyze data on video views, engagement metrics, and audience demographics using these tools, allowing us to identify key trends and patterns.

Through our analysis, we found that video length, title keywords, and thumbnail images were significant factors in driving views and engagement on YouTube. We also discovered that certain content categories, such as entertainment and music, were more likely to trend on the platform.

Overall, our project has demonstrated the power of social media analytics in understanding user behavior and preferences on YouTube. The insights we have gained can be used to inform content creation strategies and improve the performance of our own YouTube channel or those of our clients

For future work, we will use the insights gained from the analysis to make predictions of whether a YouTube video is likely to be trending or not which can be used further to make recommendations for how businesses/ advertisers and content creators can improve their YouTube strategy.

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- https://vaizle.com/product/social-media-analytics/youtube-analytics
- https://metricool.com/what-is-youtube-studio/
- https://en.wikipedia.org/wiki/Social_media_analytics
- https://towardsdatascience.com/youtube-trending-video-analysis-with-pandas-and-seaborn-c9903a0f811d
- https://www.irjet.net/archives/V7/i8/IRJET-V7I8732.pdf
- https://esource.dbs.ie/bitstream/handle/10788/4260/msc_niture_aa_2021.pdf?sequence=1&isAllowed=y
- https://www.ijettcs.org/Volume11Issue4/IJETTCS-2022-07-23-16.pdf