

 YouTube US Data

# Build Data Dashboards

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## Visualization 1

# YouTube Video Views Dashboard

### Link to the Tableau Public

<https://public.tableau.com/pr/ofile/raghd.alqurashi#!/vizhome/YouTubeVideoViewsDashboard/Visualization1?publish=yes>

### Summary:

The most popular YouTube channels based on views were Marvel Entertainment and Dude Perfect in all years with 800B and 536B total views, respectively. The average views has dropped to the minimum in 2009 with 11,053 views, and if we hover on each year we can see a bar chart that is sorted in descending order which shows the videos with the most views on that year. For instance, in year 2009 "The Cranberries - Dreams (Music Video HQ)" video had the highest number of average views. Lastly, we can see in the map that Florida state has the highest percentage of the YouTube total views compared to other states in United States (13.48%).

### Design:

For "Most-Viewed YouTube Channels" visualization, I chose bar chart using the length visual encoding and horizontal so that the labels are easier to display and understand than the vertical. I also used line chart to show how the average views changed over the years, and I opted to include bar chart Tooltip when hovering the mouse over the line chart to add additional interactive context. In addition, I chose map chart for the third visualization to position the views in a geographical context and to display the percentage of total views in each state in the United States, I used different shades of blue to indicate the different states based on the highest to the lowest total percentage views. Finally, I applied the publish year filter to all the visualizations so that the user can visualize the YouTube views at any year.

**Resources:** Tableau. (n.d.). Create Views for Tooltips (Viz in Tooltip). Retrieved November 10, 2020, from [https://help.tableau.com/current/pro/desktop/en-us/viz\\_in\\_tooltip.htm](https://help.tableau.com/current/pro/desktop/en-us/viz_in_tooltip.htm)

## Visualization 2

# Top YouTube Content Categories by the Number of Videos

### Link to the Tableau Public

<https://public.tableau.com/profile/raghd.alqurashi#!/vizhome/TopYouTubeContentCategoriesbytheNumberofVideos/Visualization2?publish=yes>

### Summary:

Entertainment is the largest content category on YouTube and has the highest number of videos (3.1M) in this category and represented 25.13% of the total videos. 0.04% of the videos on YouTube belonged to Nonprofits & Activism category which was the least among all.

### Design:

I used tree map to visualize different YouTube categories using size and color encoding. In addition to the number of videos shown in each category, I also decided to show the percentage of the total videos in each category as label to make it easy to compare the categories to each other. The different shades of blue represents the number of videos, the darkest is a category with the highest number of videos and the lightest is the least.

**Resources:** N/A

## Visualization 3

# Likes, Dislikes and Comments on YouTube Videos Dashboard

### Link to the Tableau Public

<https://public.tableau.com/profile/raghd.alqurashi#!/vizhome/LikesDislikesandCommentsonYouTubeVideosDashboard/Visualization3?publish=yes>

### Summary:

The most disliked video in Sports category of all years was "Justin Timberlake's FULL Pepsi Super Bowl LII Halftime Show! | NFL Highlights" with 474M dislikes. Likes and Comments per Category chart shows that the relationship between likes and comments is positive and strong, I used the function  $\text{CORREL}(\text{likes}, \text{comments})$  in Excel and I found out that the value of the correlation coefficient is 0.97.

### Design:

I chose the horizontal bar chart in "Most Disliked Videos in Sports" visualization to sort the videos from the highest dislikes to the lowest. I created set from category name field to create a column that included only sports category, then I created hierarchy from title field. For Likes and Comments per Category visualization, I chose scatterplot to compare two quantitative variables (Likes vs. Comments). To easily visualize the relationship among different categories, I used different colors for each category and included them in legend. Also, I added drop-down filter to better focus on specific category.

**Resources:** N/A