## Let's study the trending YouTube Videos! - Gelei Chen

D3.js visualization for CS498 Data Visualization course final project.

## Live Project

This proejct is hosted live at <https://uiucgelei.s3-us-west-2.amazonaws.com/index.html>.

## Message

## The initial analysis based on the YouTube Trending Dataset shows that a prospective video influencer should choose to film a Music styled video. The location should be in United Kingdom where there were the most amount of views logged. The video will most likely becoming a trending video at Spring and Winter.

## The YouTube Dataset

<https://www.kaggle.com/datasnaek/youtube-new>

YouTube (the world-famous video sharing website) maintains a list of the top trending videos on the platform. According to Variety magazine, “To determine the year’s top-trending videos, YouTube uses a combination of factors including measuring users interactions (number of views, shares, comments and likes). Note that they’re not the most-viewed videos overall for the calendar year”. Top performers on the YouTube trending list are music videos (such as the famously virile “Gangam Style”), celebrity and/or reality TV performances, and the random dude-with-a-camera viral videos that YouTube is well-known for.

Assumptions are made in the positive correlation between the number of views and the popularity of a video. This is then tied with the assumption of the positive correlation between number of check-ins and the popularity of a business. By focusing on videos which have large number of views, likes and high comments, we will be able to understand the type of video to film for as a influencer.

## Narrative Structure

### This visualization is an interactive slideshow which takes the user through the Dataset of the YouTube trending dataset. The dataset itself contains the YouTube video views across the globe. This visualization focuses on the data from the United States, United Kingdom, Canada, France, India, Japan and Mexico.

## Visual Structure

Structure:

1. Bubble chart: I leave the beautiful screen for the chart to render. And I place the button at the top left for user to navigate and select which button they want to use to filter on the chart.
2. Sunburst chart: With the chart title and message on the top left, the sunburst takes the advantage of the resourceful space on the right.
3. Line chart: Similarly, I place the line chart on the right and title as well as message on the top left.

Highlight:

1. Bubble chart: The bubble chart is highlighted, because it not only takes the majority of the space, but also it contains the most information on its presentation.
2. Sunburst chart: At first glace, user can easily figure out that the sunburst chart on the right is very standout. And user may start to play with the chart.
3. Line chart: With the plentiful of white space on the right, the line chart on the right draws users attention the most.

Transition:

1. Bubble chart: The button on the top right helps user to make a transition between different versions of the bubble chart.
2. Sunburst chart: Due to the nature of the sunburst chart visualization, the dot on the center of the chart keeps the user oriented around the views.
3. Line chart: The slider at the bottom the line chart helps the user takes full control of the visualization and understand the big picture.

## Templates Scene

The utilization of CSS takes into account a comprehensive layout for this interactive presentation. Each page is changed utilizing a similar technique and content components are kept the equivalent (text dimension and family). Furthermore there is a page transition bar on the right side which enables users to skip between various slides. The tooltips which are activated when a user moves their mouse over the route modifies the presentation parameters for every navigation menu element.

## Annotations

Annotations have been utilized in every one of the three presentation with a comparative procedure of utilizing triggers to change the hidden parameter of the explanation. For instance, the Line Chart Visualization has an underlying class of the hidden parameter which controls the showcase of the explanations set to false. As a user utilizes the brush bar to trigger changes to the line diagram chart's x-axis parameters, it likewise changes this hidden parameter to true. Last but not the least, the comments vanish until the client resets the brush bar to zero - hence zooming out back to the default presentation parameters.

## Parameters and Triggers

Both parameters and triggers are utilized in the majority of the three presentations. For the Bubble Chart Visualization, parameters for the x,y co-ordinates of each bubble are set to an default central location for the All Views Visualization. As a user chooses menu things to picked between All Views, Views by Country and Views by Category, it triggers the difference in bubble's x,y co-ordinates parameter to their individual groupings.

In Zoomable Sunburst Visualization, each mouse click on a district is a trigger for the way and circular segment parameters. By clicking inside an area, you can zoom into the information to investigate the data underneath. Tapping the inside circle will trigger the parameters to come back to its qualities one up in the progressive system.

For Line Chart Visualization, parameters are set for every Video Category. These parameters are activated to be refreshed as the mouse moves over the presentation, furnishing the client with a preview of the measure of trending videos in a given time. An optional parameter and trigger set is the brush bar underneath the line graph. This bar enables the user to zoom into the information to demonstrate a closer look of the information. By clicking a set space on the brush bar, it triggers the x-pivot parameter of the line diagram to be refreshed to a proportion of the equivalent chose area of the brush bar.

## Reference Materials

Images

<https://www.pexels.com/photo/three-men-standing-in-front-of-racing-arcade-machines-929824>

<https://www.pexels.com/photo/mokup-smartphone-technology-phone-34407>

<https://www.pexels.com/photo/photo-of-group-of-people-in-a-meeting-1661004>

<https://www.pexels.com/photo/amusement-architecture-asia-brick-276114>

<https://www.pexels.com/photo/wood-texture-background-pine-82256>