

DISCOVERING CHANNELS ON YOUTUBE

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Number of words: 989

URL:

<https://public.tableau.com/app/profile/ng.chen.ting/viz/FIT3179-YoutubeDarkVer/Dashboard1?publish=yes>

Description of Domain

The domain is multimedia Platform which focuses on YouTube and content creators on it.

Why and Who

As social media starts to gain popularity, YouTube has been one of the growing platforms for content creation. YouTube is big in places like Australia and Malaysia, but finding local content can be a bit tricky as they are not common. This visualization helps users to explore channels tailored to their preferences, with a primary focus on channel types.

What

The data source for this analysis was "Global YouTube Statistics 2023" obtained from Kaggle (Nidula Elgiriwyethana, 2023). This dataset was chosen due to its high relevance to the report's central objective, which is to gain insights into renowned YouTube channels. A data cleaning process was executed using the R programming language. This process involved the removal of null values, and the creation of a subset containing only the columns essential for the analysis.

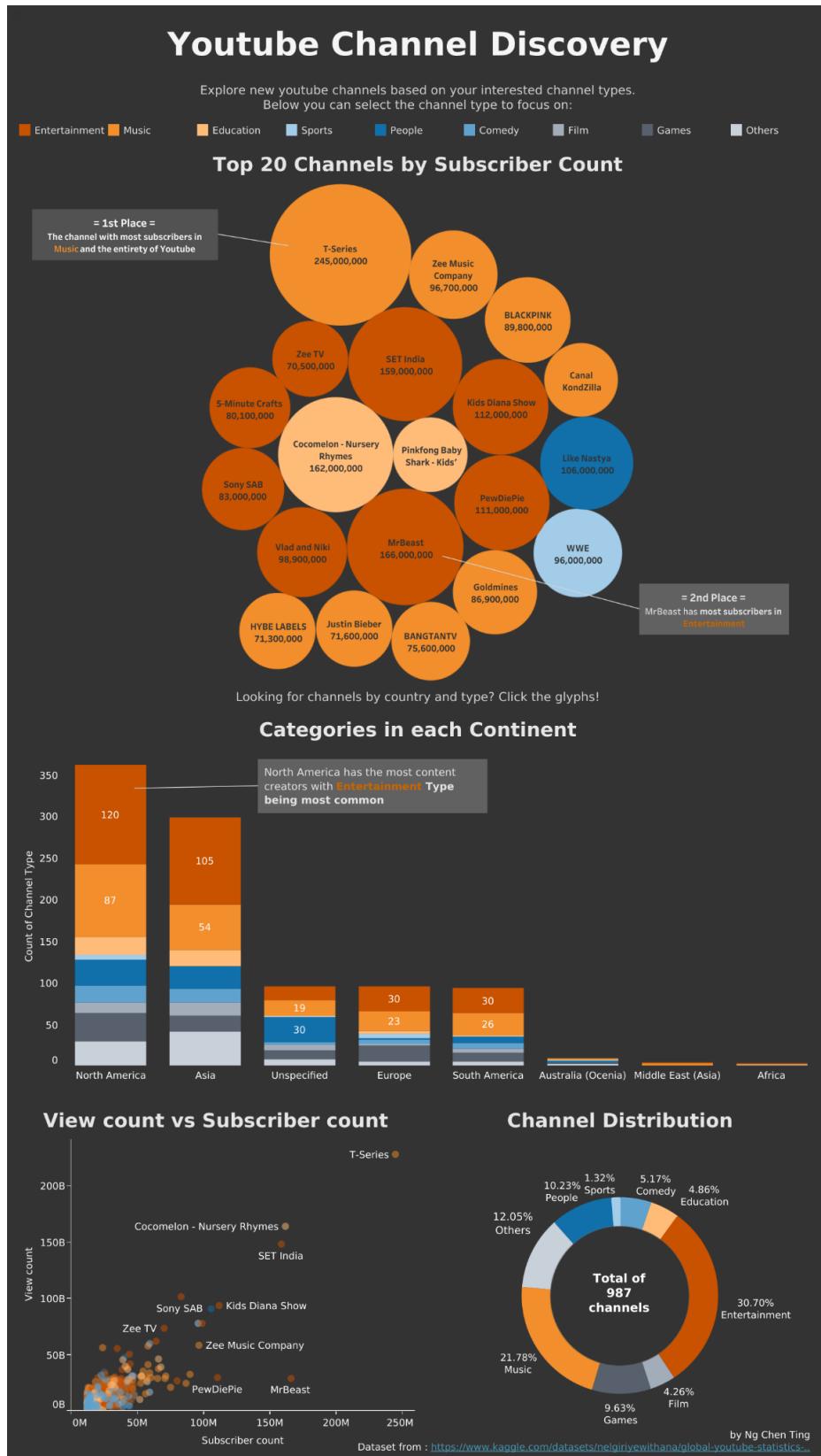


Figure 1: Full Visualization View

Why and How

Chart 1 : Circle Bar Chart for Top 20 Channels with most subscribers

Packed bubble chart is used as an idiom to represent the top 20 channels with the most subscribers because positioning of the bubbles is not significant, so it is optimized for compactness. A circular arrangement can imply a sense of flow or continuity ("Gestalt Principles of Perception | Introduction to Psychology," 2023), which could be used to suggest the ongoing growth or dynamic nature of the YouTube platform.

This design simplifies the process of discovering more channels of interest as it is straightforward and is a visually appealing centerpiece for the visualization shown in Figure 1. This allows users to easily compare the sizes and colors of their preferred channel type to discover more channels.

Chart 2 : Stacked bar chart for Categories in each country

A stacked bar chart is used when there's 2 categorical attributes and one quantitative attribute which are "Country", "Channel type" and the cumulative presence of each Channel Type. Each bar in the chart represents a specific country, and within each bar, the stacking of glyphs signifies the number of channels of each type present in that country.

Viewers can grasp how various content genres are distributed across geographical boundaries, thereby providing insights into the distinct preferences of users in different parts of the world.

Chart 3 : Scatter plot for correlation between video views and subscriber count

A scatter plot is used to visualize the relationship between two quantitative variables: video views and subscriber count. Each data point signifies a YouTube channel with an addition of hue to represent a channel type which is a nominal attribute. As there are many overlapping marks, light opacity is chosen for marks to indicate its density.

This way, users can visualize the relationship and clearly identify trends, outliers and distribution.

Chart 4 : Donut chart for channel type

A donut chart is used to convey the part-whole relationship for a categorical attribute, "Channel Type," and a quantitative attribute, denoting the cumulative presence of each Channel Type across all YouTube channels. The utilization of both area and angle allows for a clear representation of relative quantity, effectively conveying the distribution of channel types.

This can easily help users see at a glance how channel types are distributed, providing insights into the diversity of content on YouTube.

Design

Layout

The layout of the visualization is structured using 2 columns to achieve a good symmetrical balance while maintaining the order of chart importance. The packed bubble chart is also placed at the visual center to emphasize its importance. This allows users to focus on it first to see who are the giants in YouTube. The legend representing channel types is strategically located at the top, spanning an entire row to minimize sightlines and facilitating quick reference.

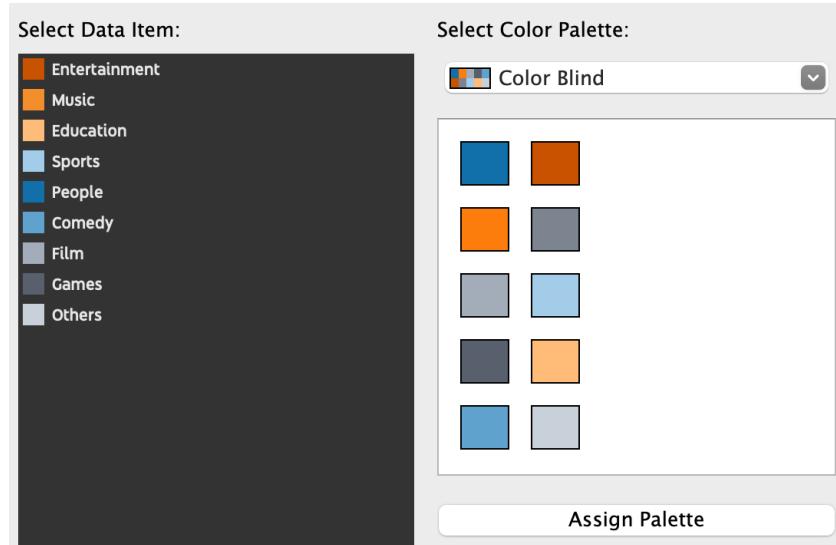


Figure 2: Colour assignment of Channel Type Legend

Colour

Inspired by YouTube's dark theme, the visualization has a black background color accenteduated by red. Careful considerations are also given to the color choices for channel types to avoid harsh contrasts and also to account for people who are color blind in Figure 2. Color consistency is also maintained throughout the visualization, with each color representing a specific channel type. White text is used against the dark backdrop to enhance readability, ensuring that information remains easily accessible and comprehensible.

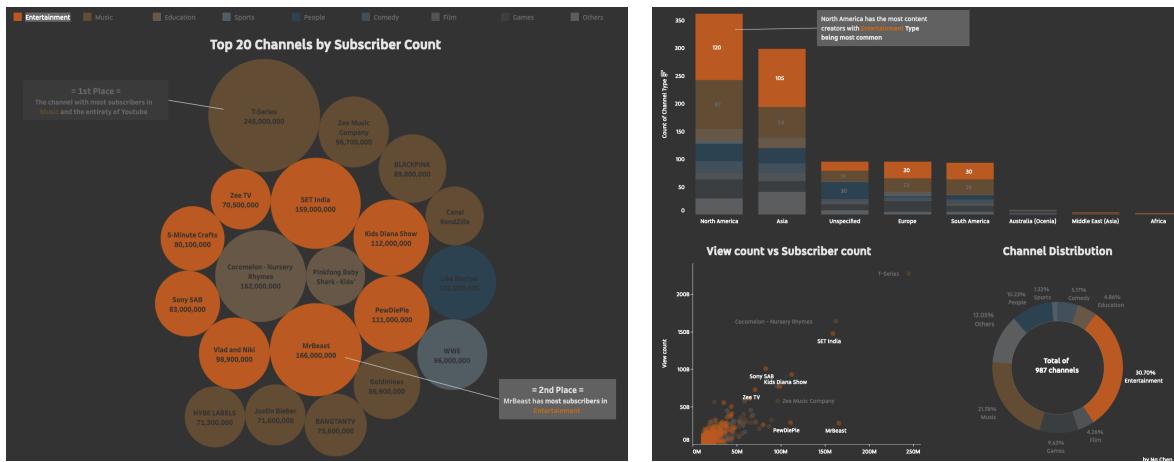


Figure 3 & 4: Selection of Entertainment Type

Figure-ground

When a channel type is selected, all channel types except the chosen one are dimmed shown in Figure 3 and 4. This variation in graphical elements highlights the selected channel type as the figure against a subdued background, effectively directing the viewer's attention to the main focus of interest. Furthermore, important points in descriptions and annotations are formatted with increased weight and distinctive colors, serving as figure symbols that stand out prominently amidst other information creating a visual hierarchy.

Youtube Channel Discovery

Figure 5: Main title of figure

Typography

“Youtube Sans” is used throughout the visualization to align with YouTube’s brand identity (Bettig, 2014). The bolding of the main title which can also be seen in Figure 5 and chart titles are also applied to establish a clear visual hierarchy and guide the reader’s attention effectively. The font size of the main title is largest to serve as the primary focal point of the visualization. Descriptions throughout the visualization also serve as a border to separate each idiom.

Storytelling

Readers are guided through the visualization in a top-to-bottom order, facilitated by scrolling. It begins with a clear title and introduction, followed by distinct section headings that provide a roadmap for the narrative. Annotations are strategically used to emphasize key insights within each chart or section, drawing attention to vital details. By applying gestalt’s principle of similarity, once a channel type is clicked, only colors of the specific channel type are displayed as shown in Figure 3 and 4. This would visually group related channels and make it easier for readers to see patterns and trends.

Citations

Bettig, C. (2014). YouTube Sans: The Making of a Typeface. Retrieved September 3, 2023, from Google Design website:

<https://design.google/library/youtube-sans-the-making-of-a-typeface>

Gestalt Principles of Perception | Introduction to Psychology. (2023). Retrieved September 3, 2023, from Lumenlearning.com website:

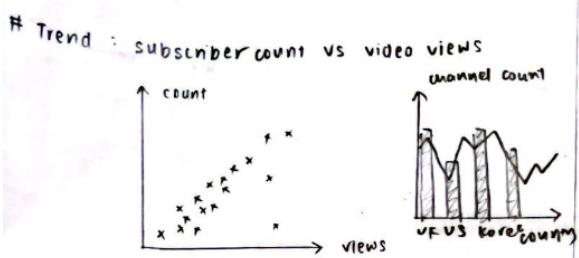
<https://courses.lumenlearning.com/waymaker-psychology/chapter/gestalt-principles-of-perception/>

Nidula Elgiriyewithana. (2023). Global YouTube Statistics 2023. Retrieved September 3, 2023, from Kaggle.com website:

<https://www.kaggle.com/datasets/nelgiriyewithana/global-youtube-statistics-2023>

Appendix

① Ideas

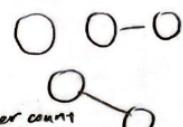


Filter

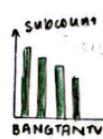
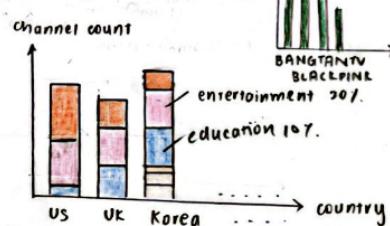
Trend - correlation between sub count vs views



Network graph



By country analysis



channel categories

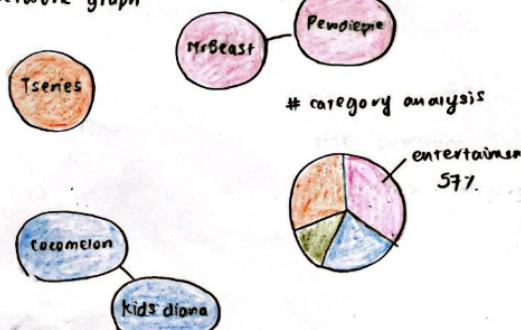
Top 20 channels

country analysis

sub count each channel count

correlation between subcount vs views

Network graph



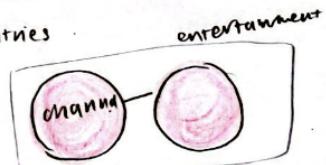
Questions

① Do these ideas provide solution to visualising famous youtube channels?

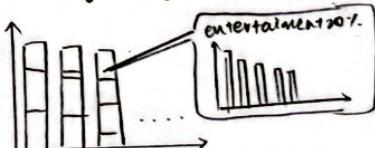
② Do these concepts align with assignment goals and effectively communicate insights to different user graphs?

combine and refine

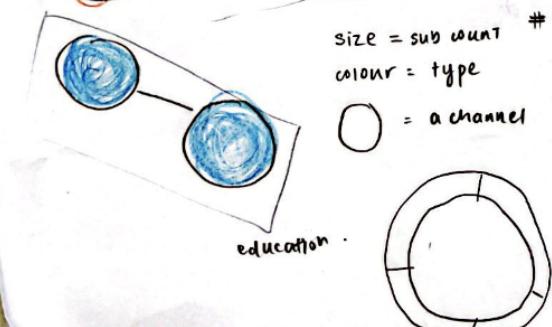
Top 20 countries



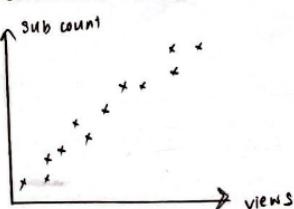
country analysis



size = sub count
colour = type
= a channel



correlation between subcount vs views

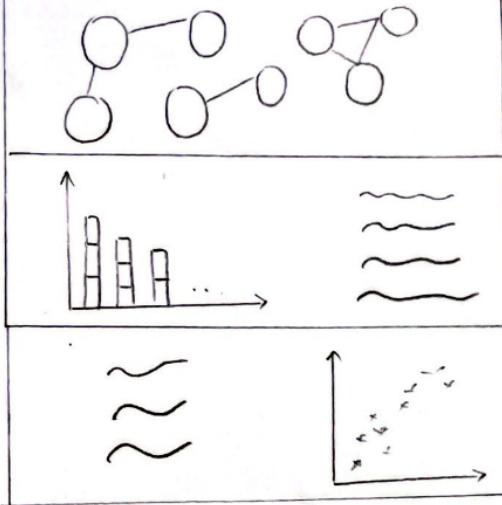


All charts here
are used in the
following design
stage 2, 3, 4.

may be
represented by category type

LAYOUT

TITLE - Top 20 channels



FOCUS.

It's very narrative so it focuses on giving insights

Top 20 channels

Country analysis

- which category is most famous among each country
- the top channels in each country by category

Correlation scatter plot btwn video views and subscriber count

TITLE : Narrative View

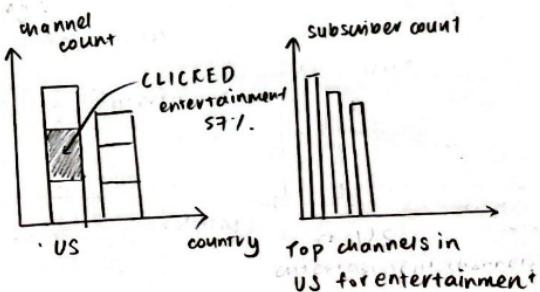
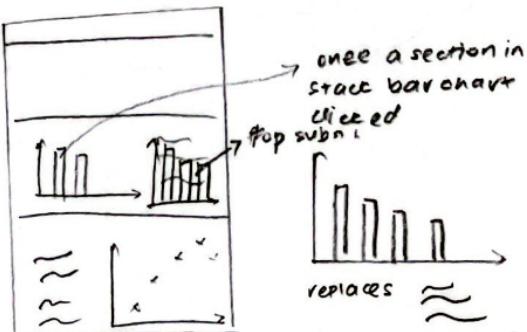
AUTHOR: Ng Chen Ting

DATE : 25/08/2023

SHEET : 2

TASK : An informative narration layout

OPERATIONS



DISCUSSION

- # may have a risk of information overload since many spaces left for description
- # Not very interactive
- # Simple implementation

LAYOUT

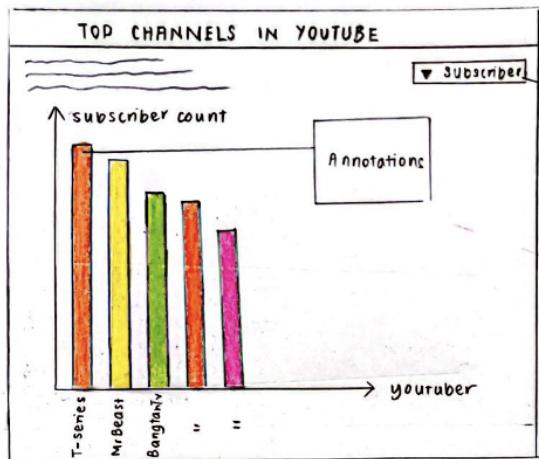
TITLE : multiple paged dashboard

AUTHOR : Ng Chen Ting

DATE : 24 / 08 / 2023

SHEET : 3

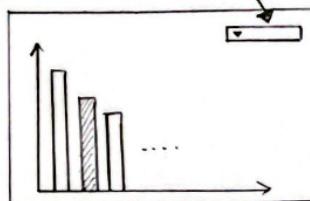
TASK : create a compact and clear design



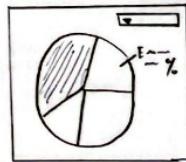
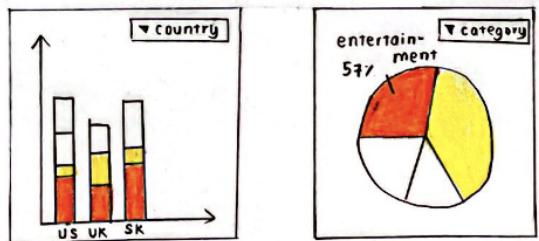
OPERATIONS

→ this is a drop down list to switch between graphs / type

- ▼ subscriber
- by category
- correlation
- by country
- description



→ WHEN CLICKED, ENTIRE CHART CHANGE

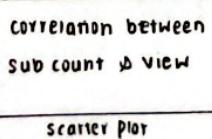
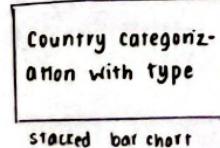
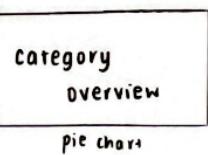


Page changes after each selection
Has a feature to highlight categories too when clicked

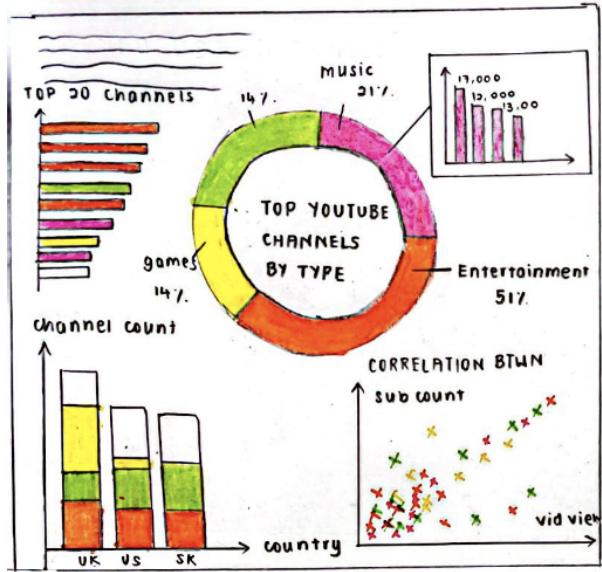
DETAIL

- # Allows viewer to focus on one chart at a time
- # easy navigation
- # very simplistic and minimalistic
- # easy implementation
- # no overview!
- # lacks explanation, no room for narration / storyline.

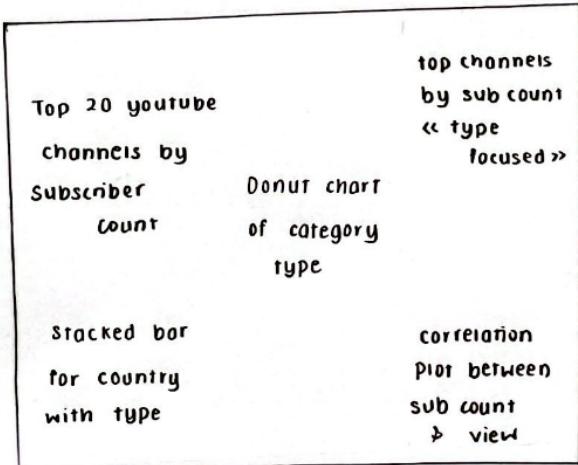
FOCUS : one chart at a time. Solo focus



LAYOUT



FOCUS :



TITLE : single paged overview

AUTHOR : ng chen ting

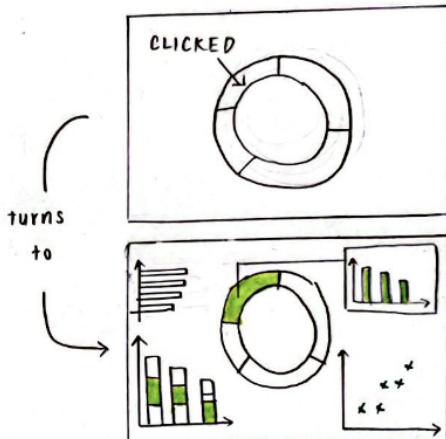
DATE : 24/08/2023

SHEET : 4

TASK : a compact dashboard with only one view

OPERATION

category type selection in donut chart



DETAIL

compact design

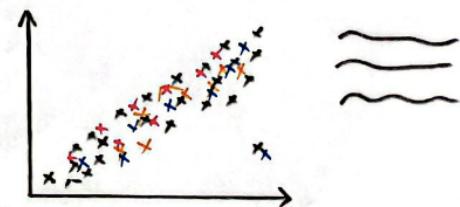
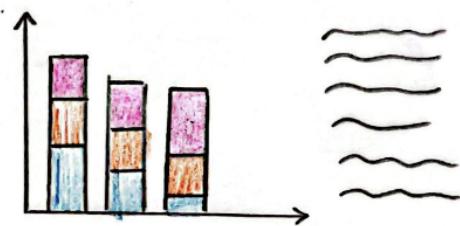
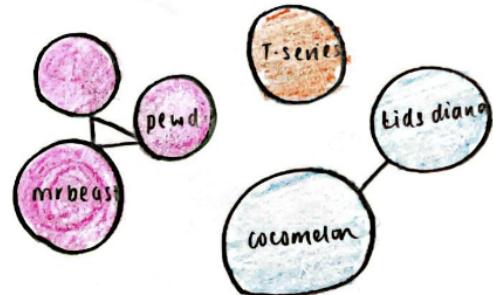
easy to understand

not much room for description

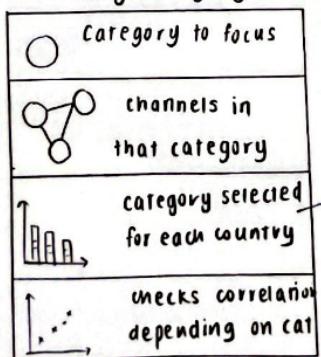
may be complicated to arrange

LAYOUT

Top Channels By Categories



FOCUS : very category focused



TITLE : Final Design Sheet

AUTHOR : Ng Chen Ting

DATE : 25/08/2023

PAGE : 5

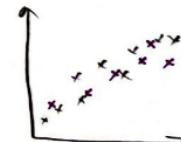
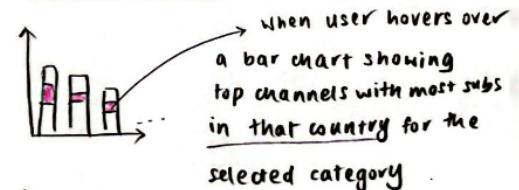
TASK : Final Implementation Design

(extension of design 2)

OPERATION

Eg : Ent

When viewer clicks on a category bubble



DETAIL

Database implemented with csv file

Allows viewers to effectively discover new channels in the same category