

# Trending YouTube Video Analysis

## Group Members >

Haenara Shin

Lei Gao

Daniel You

Yiwei Cheng

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Give suggestions to people who want to become a  
successful YouTuber

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## YouTube Trending Video

**“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).”**

## Motivation

- YouTube is by far the most popular video streaming service in the United States.

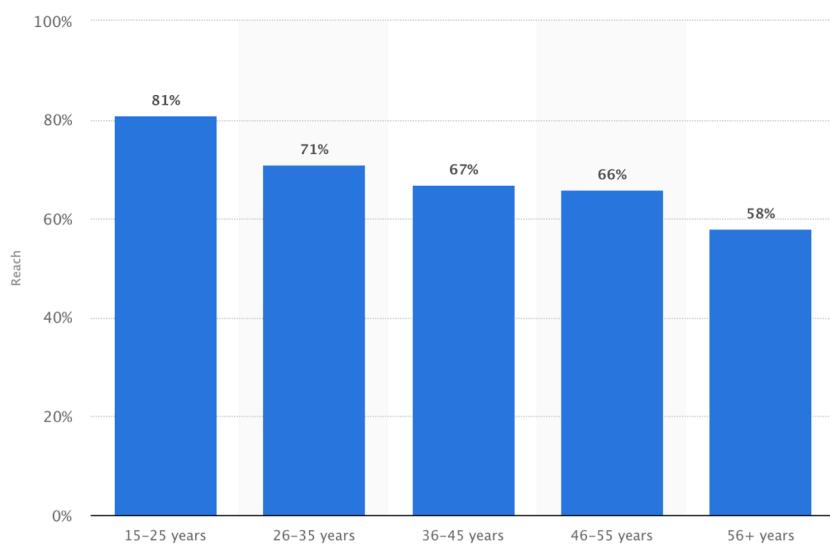


Figure 1: US YouTube user age

# Dataset & Methodology

Previous Data from  
Kaggle Dataset  
(375,942 )

Recent Data from  
Nov 22 to 26 Nov  
(2,715)

- \*Google API for YouTube;
- \*Request for the API\_key;
- \*Import modules *requests*,  
*argparse*;

Add YouTube features to your application, including the ability to upload videos, create and manage playlists, and more.

Add YouTube functionality to your app

Add YouTube functionality to your site

With the YouTube Data API, you can add a variety of YouTube features to your application. Use the API to upload videos, manage playlists and subscriptions, update channel settings, and more.

Search for content

Use the API to search for videos matching specific search terms, topics, locations, publication dates, and much more. The APIs `search.list` method also supports searches for playlists and

## Data Extraction

- The trending video in US, RU and IN is selected and analyzed.

\*<https://www.kaggle.com/datasnaek/youtube-new>  
\*<https://developers.google.com/youtube/v3>

# Dataset & Methodology

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## Data Extraction

## Data Cleaning

Add YouTube functionality to your app  
\*Remove the NULL data;

\*Reformat the timestamp;

\*UTC time calibration;

Add YouTube functionality to your site

With the YouTube Data API, you can add a variety of YouTube features to your application. Use the API to upload videos, manage playlists and subscriptions, update channel settings, and more.

## Data Cleaning & Selection

US  
(United States)

RU  
(Russia)

IN  
(India)

## Data Visualization

- The dataset is composed of two parts: one part is sparse data (from the Kaggle dataset) and the data from Nov 22 to 26 Nov(extracted from YouTube API).

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

\*<https://developers.google.com/youtube/v3>

# What are the trending categories on YouTube changed from time to time?

Past (2017-2018)	1. Entertainment	2. People & Blogs	3. News & Politics
US	1. Entertainment	2. Music	<u>3. Howto &amp; Style</u>
RU	1. People & Blogs	2. Entertainment	<u>3. News &amp; Politics</u>
IN	1. Entertainment	2. News & Politics	3. Music

November 2019	1. Entertainment	2. People & Blogs	3. News & Politics
US	1. Entertainment	<u>2. Sports</u>	3. Music
RU	1. People & Blogs	2. Entertainment	<u>3. Auto &amp; Vehicles</u>
IN	1. Entertainment	2. News & Politics	3. Music

Table 1: Top 3 trending categories in US, RU and IN

# Past

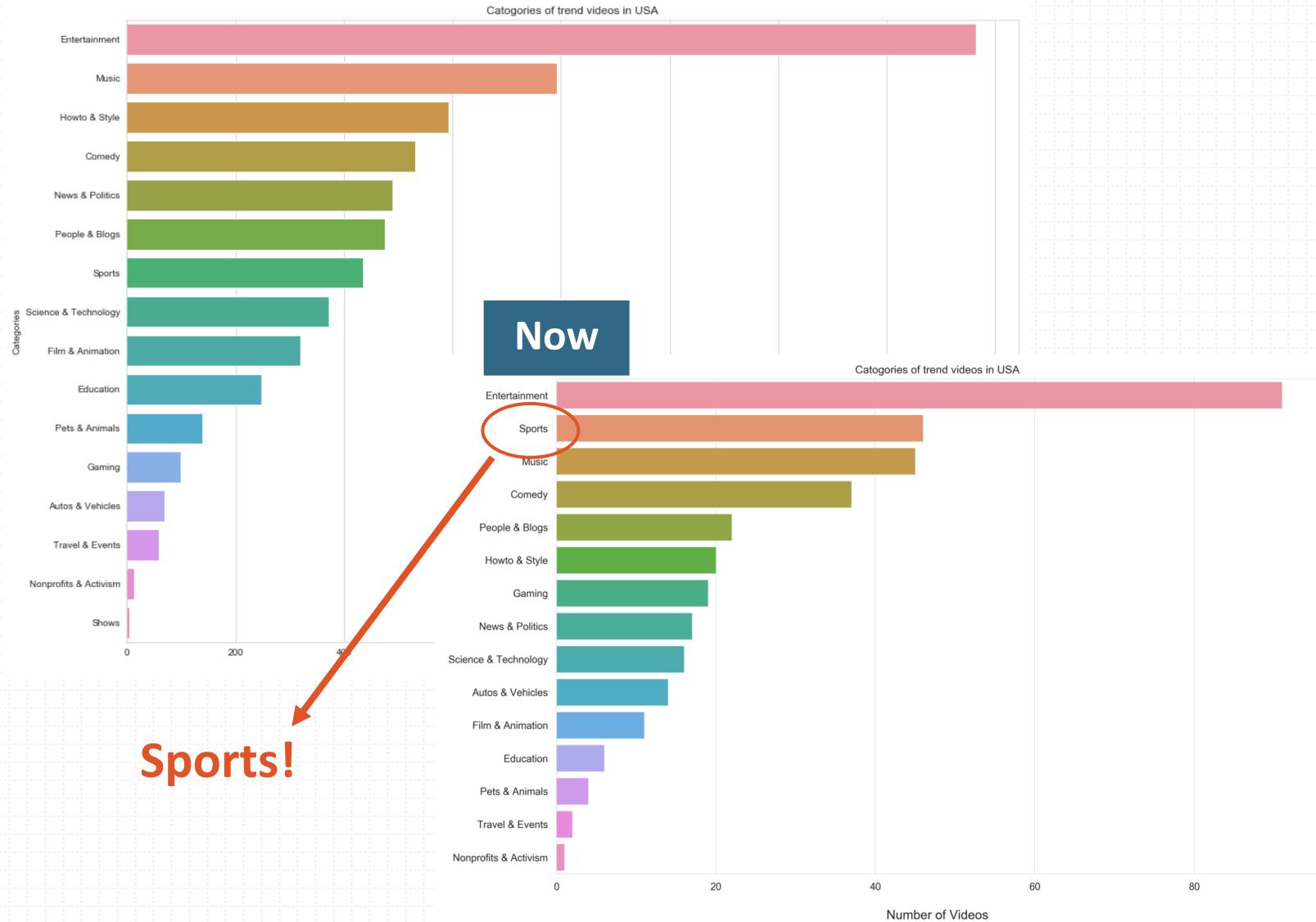


Figure 2: Ranking of contents in US (Past vs. Now)

# What content type should I create if I want to be a successful YouTuber?

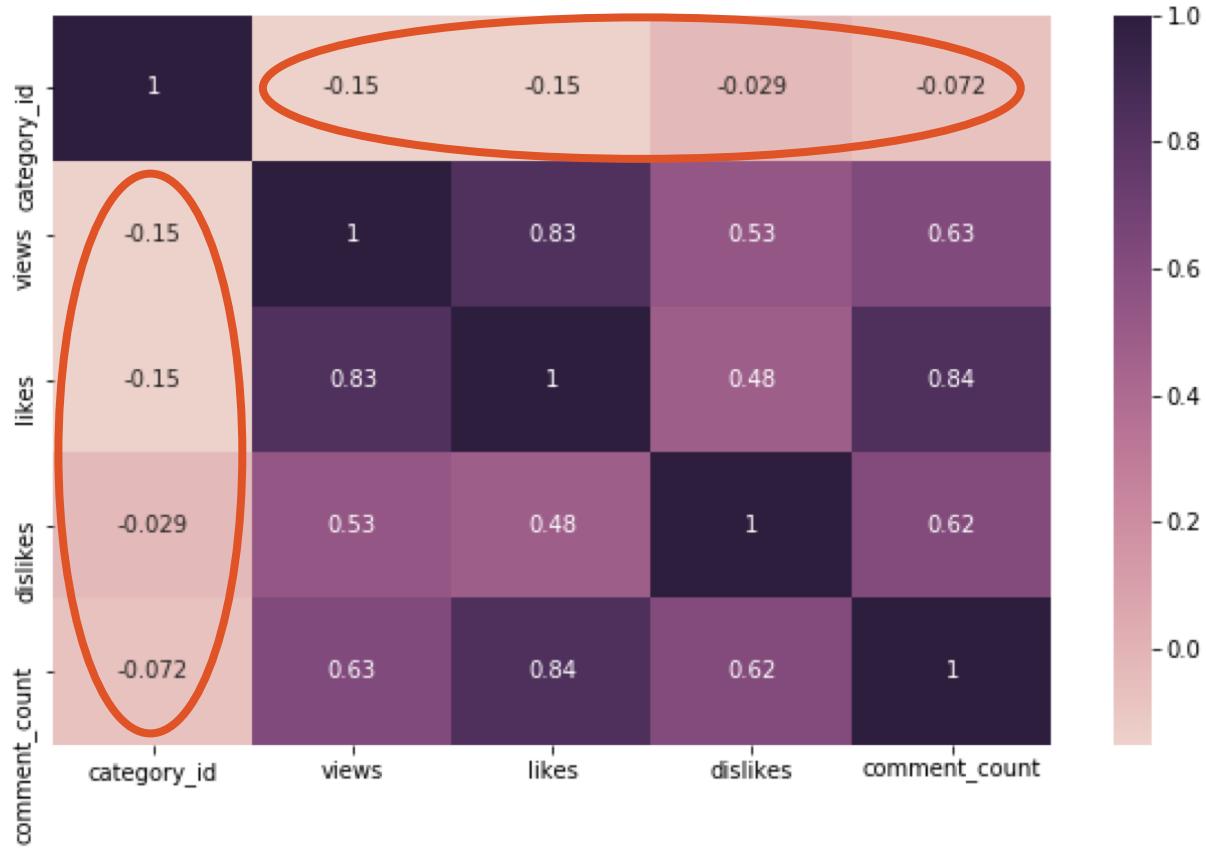


Figure 3: Overall correlation between dataset columns

# Which category could stay popular longer?

US people enjoys shows!

There are 18 days for shows on the trending list averagely!

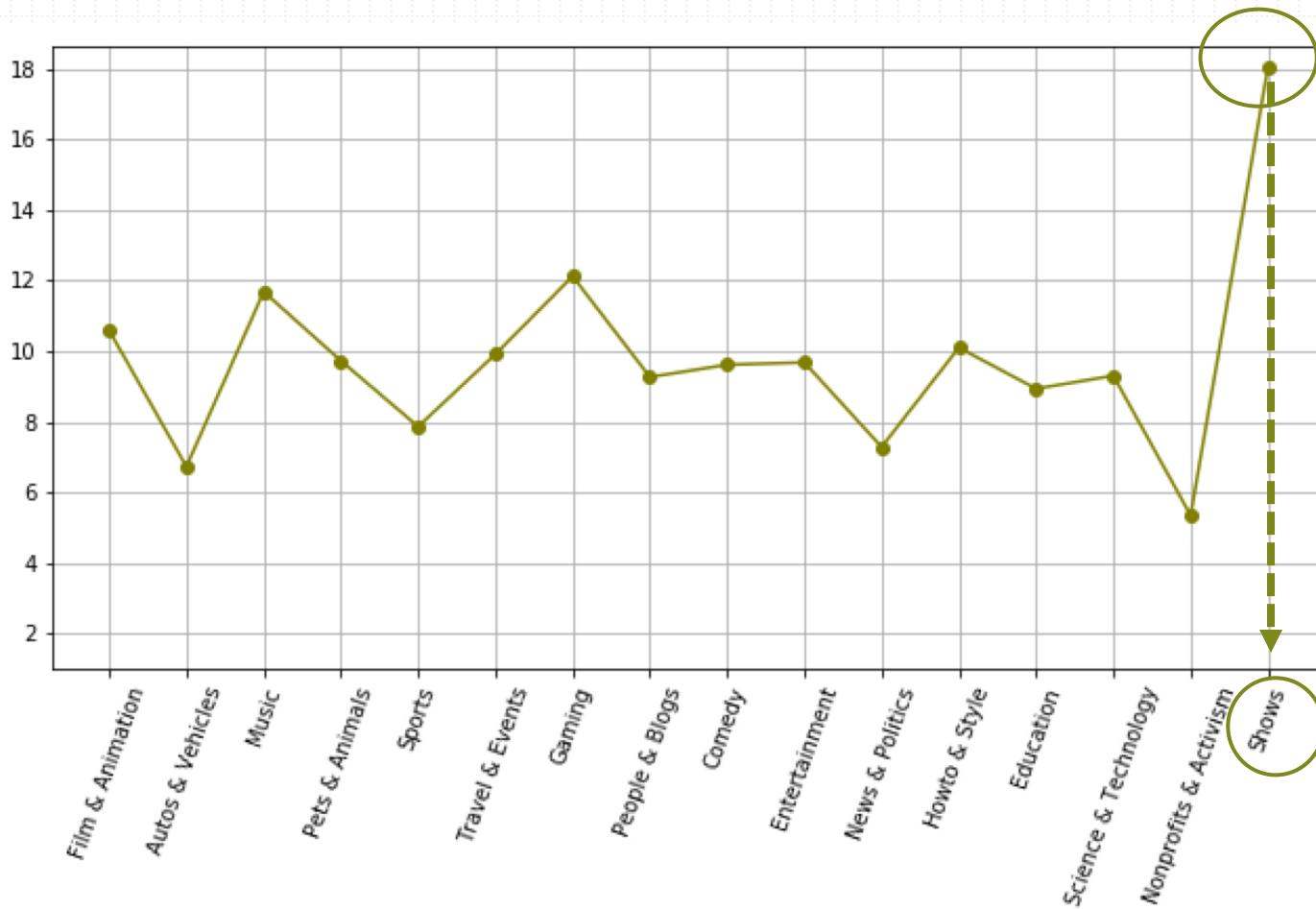
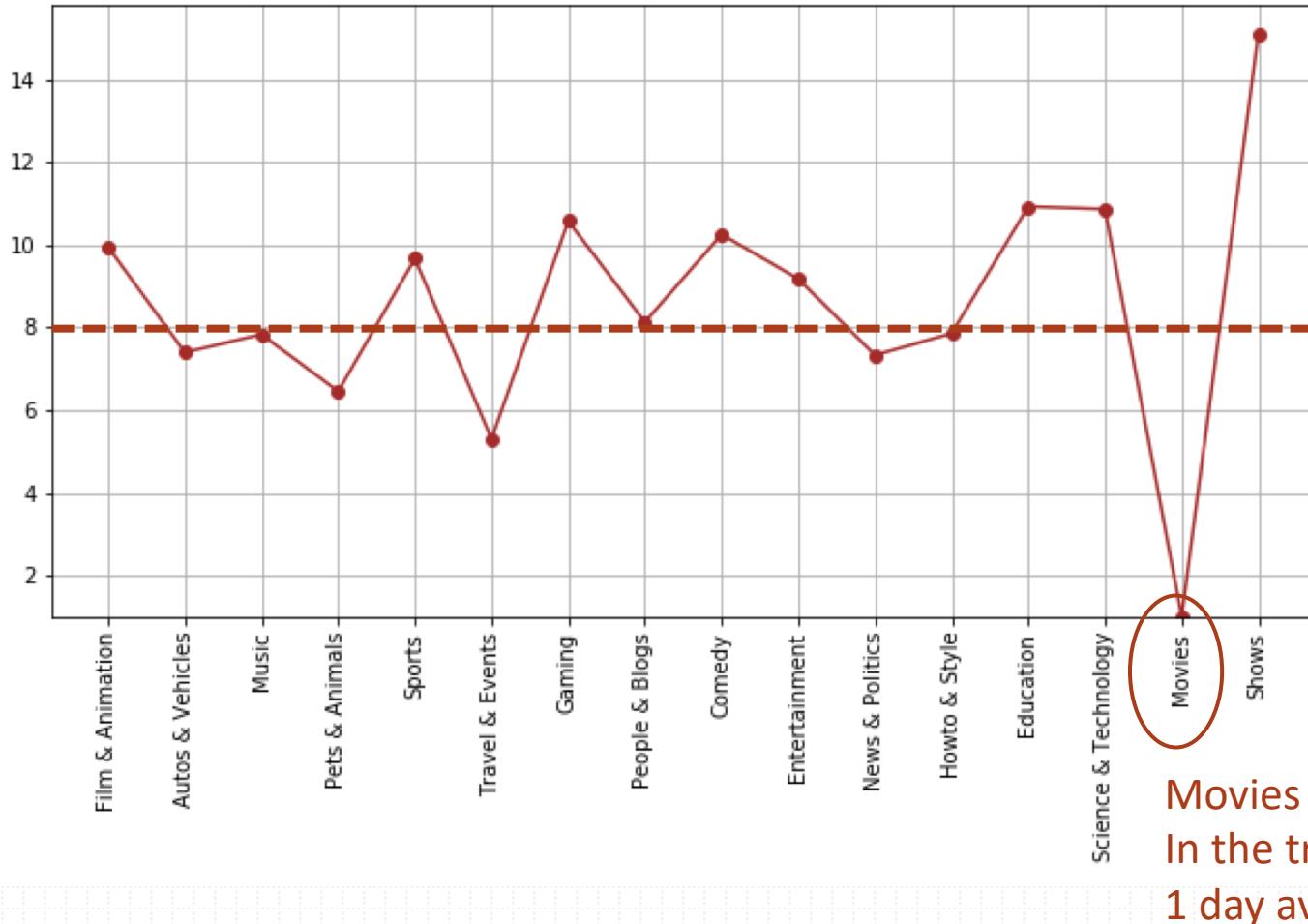


Figure 4.1: Average days on trending list, by category' ID (US)

# Movie could not stay long on the trending list in RU!



Movies could only stay  
In the trending list for  
1 day averagely.

Figure 4.2: Average days on trending list, by category' ID(RU)

# Pets & Animals videos last extraordinary long in IN trending list!

172 days averagely

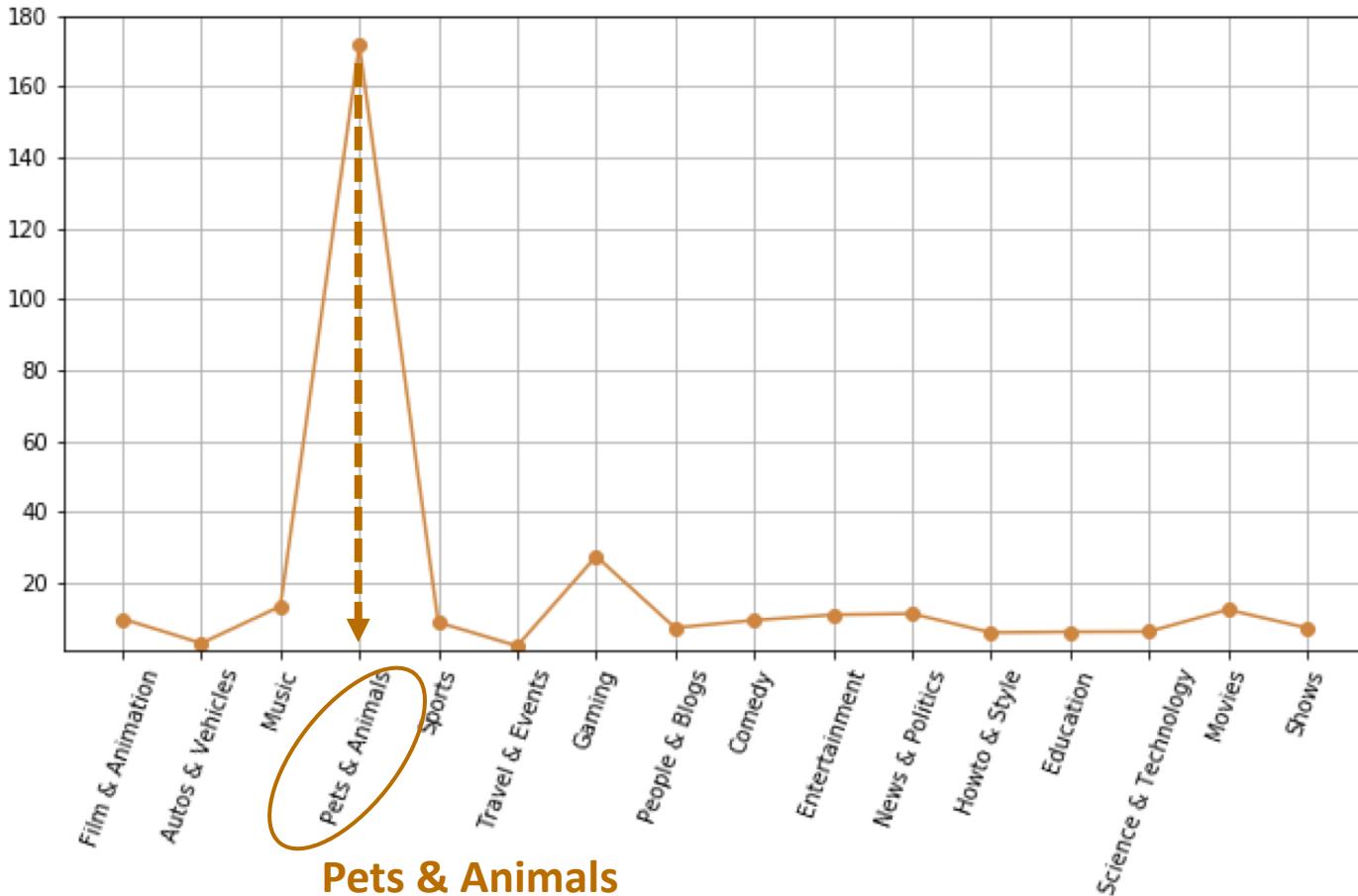


Figure 4.3: Average days on trending list, by category' ID(IN)

# When is the best time to publish a video?

More Videos are published on weekdays than weekends!

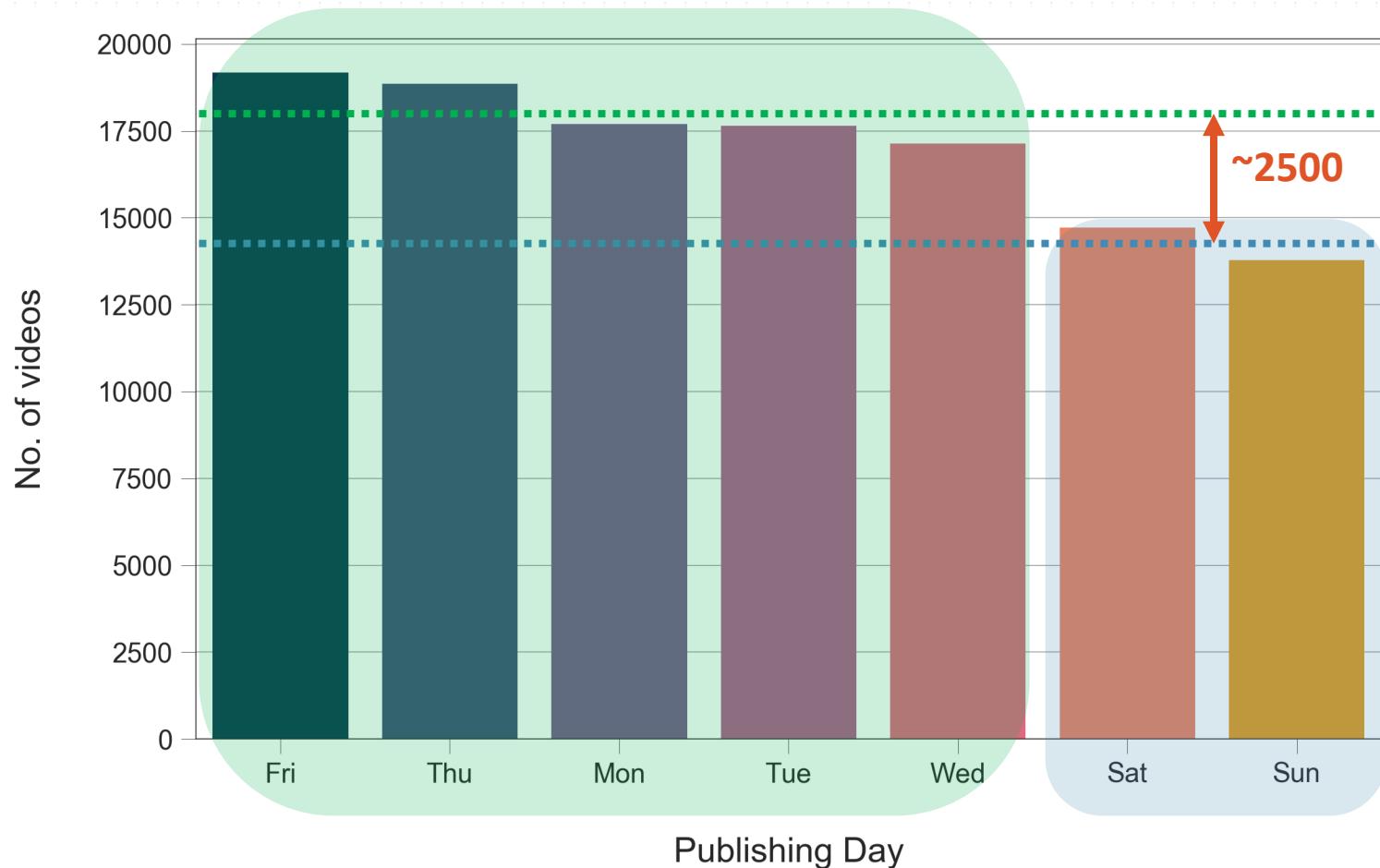


Figure 5: Publishing day and trending no. of videos

# People tend to publish videos in the afternoon!

More trending videos are published from 1 p.m to 5 p.m

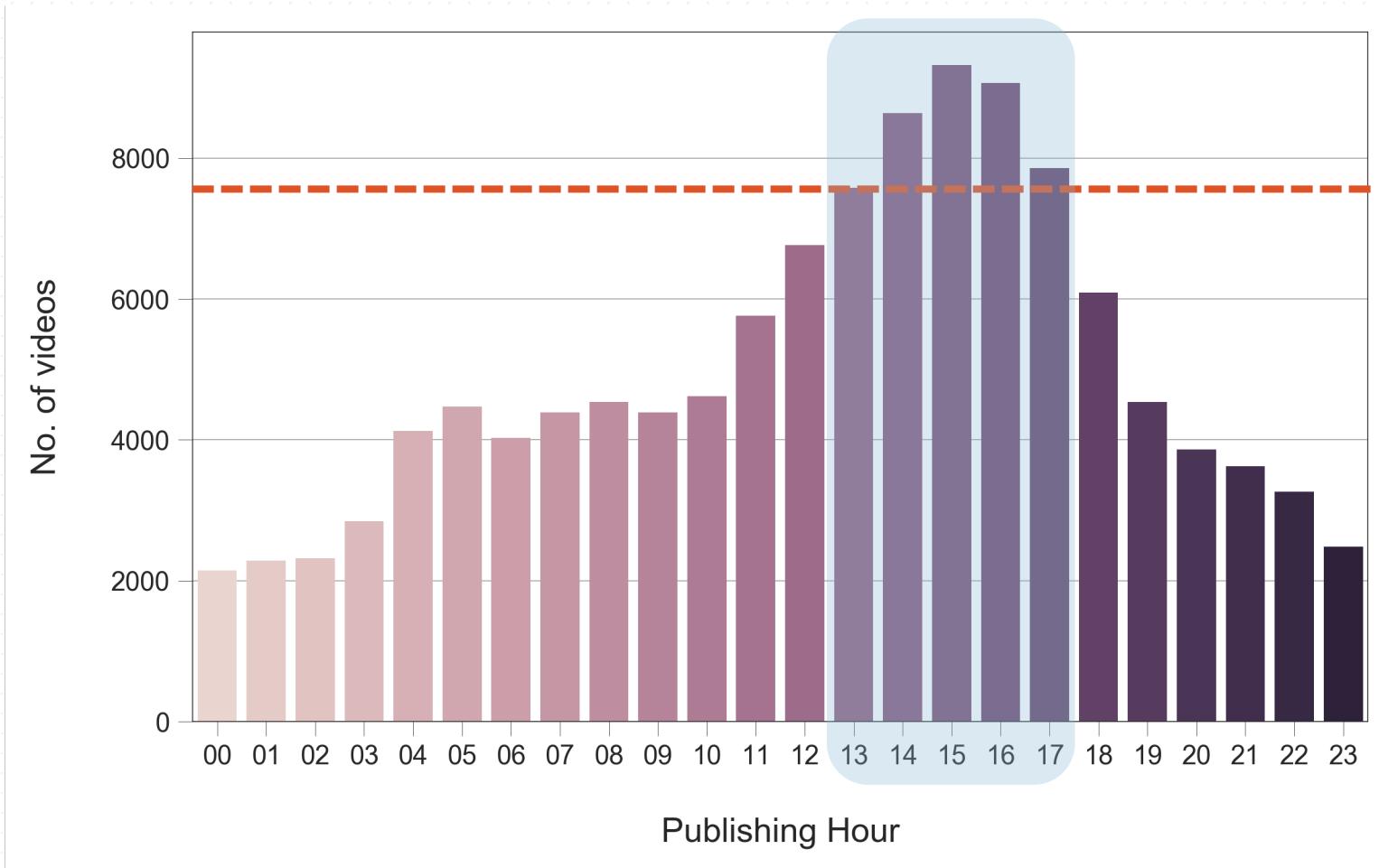


Figure 6: Publishing hour and trending no. of videos

# Which category has the higher likes/dislikes ratio?

Top 3: Pets & Animals  
Education  
Howto & Style

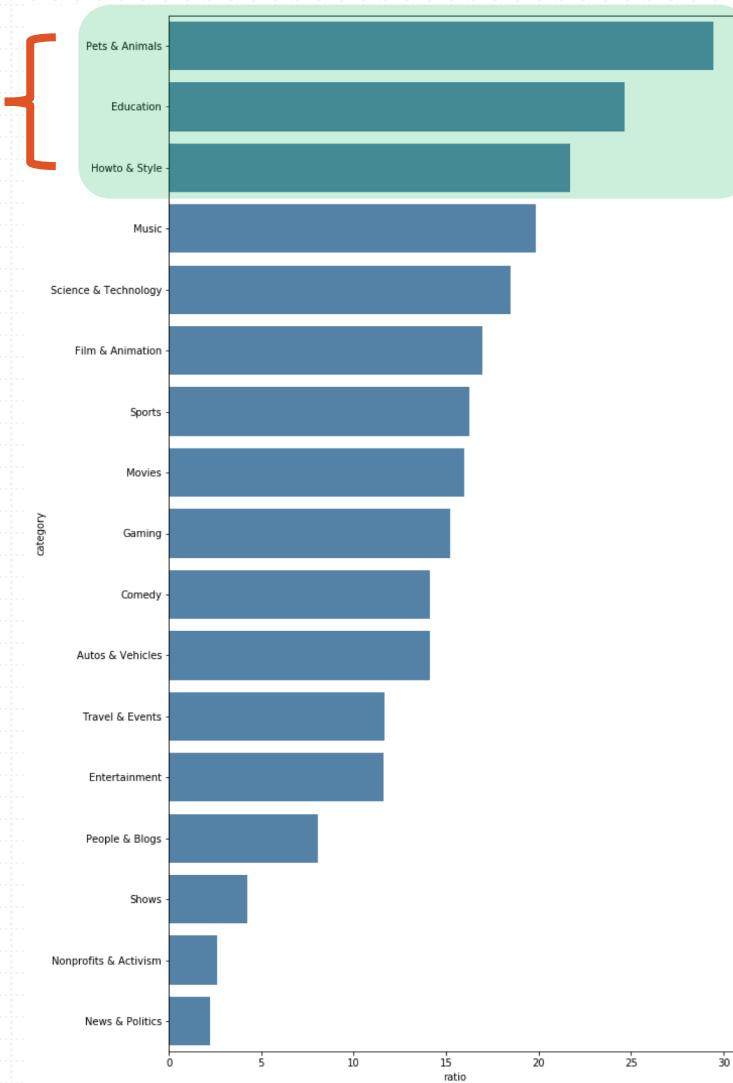


Figure 7.1: Overall likes/dislikes ratio of each category

# likes/dislikes ratio in US

Top 1: Shows

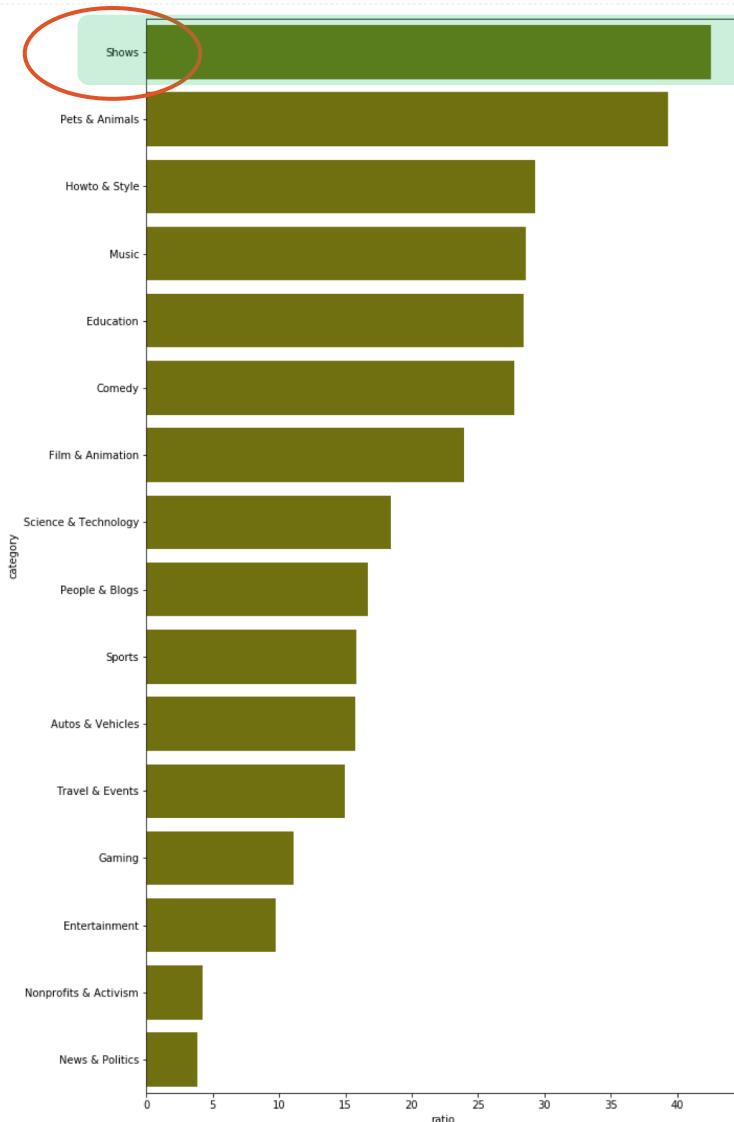


Figure 7.2: likes/dislikes ratio of each category (US)

# likes/dislikes ratio in RU

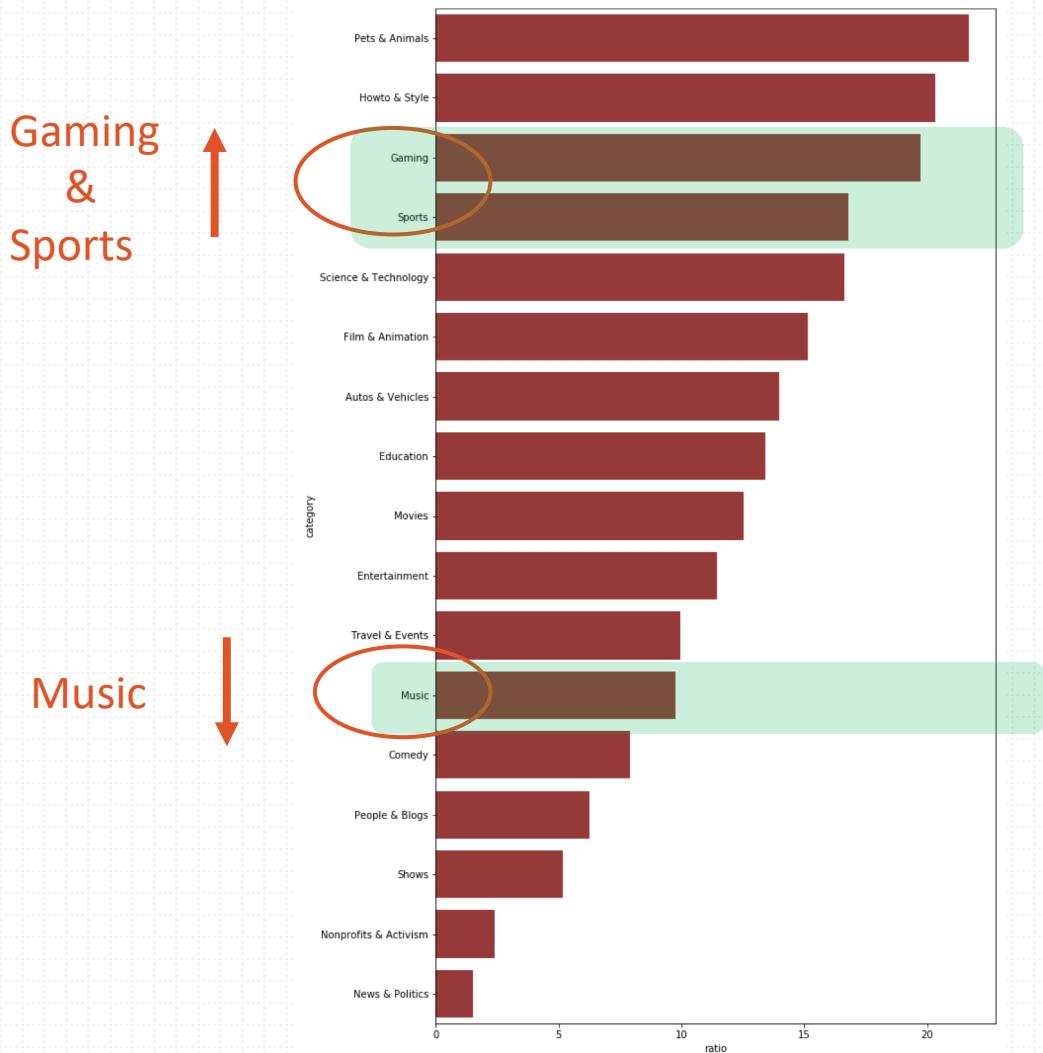


Figure 7.3: likes/dislikes ratio of each category (RU)

# likes/dislikes ratio in IN

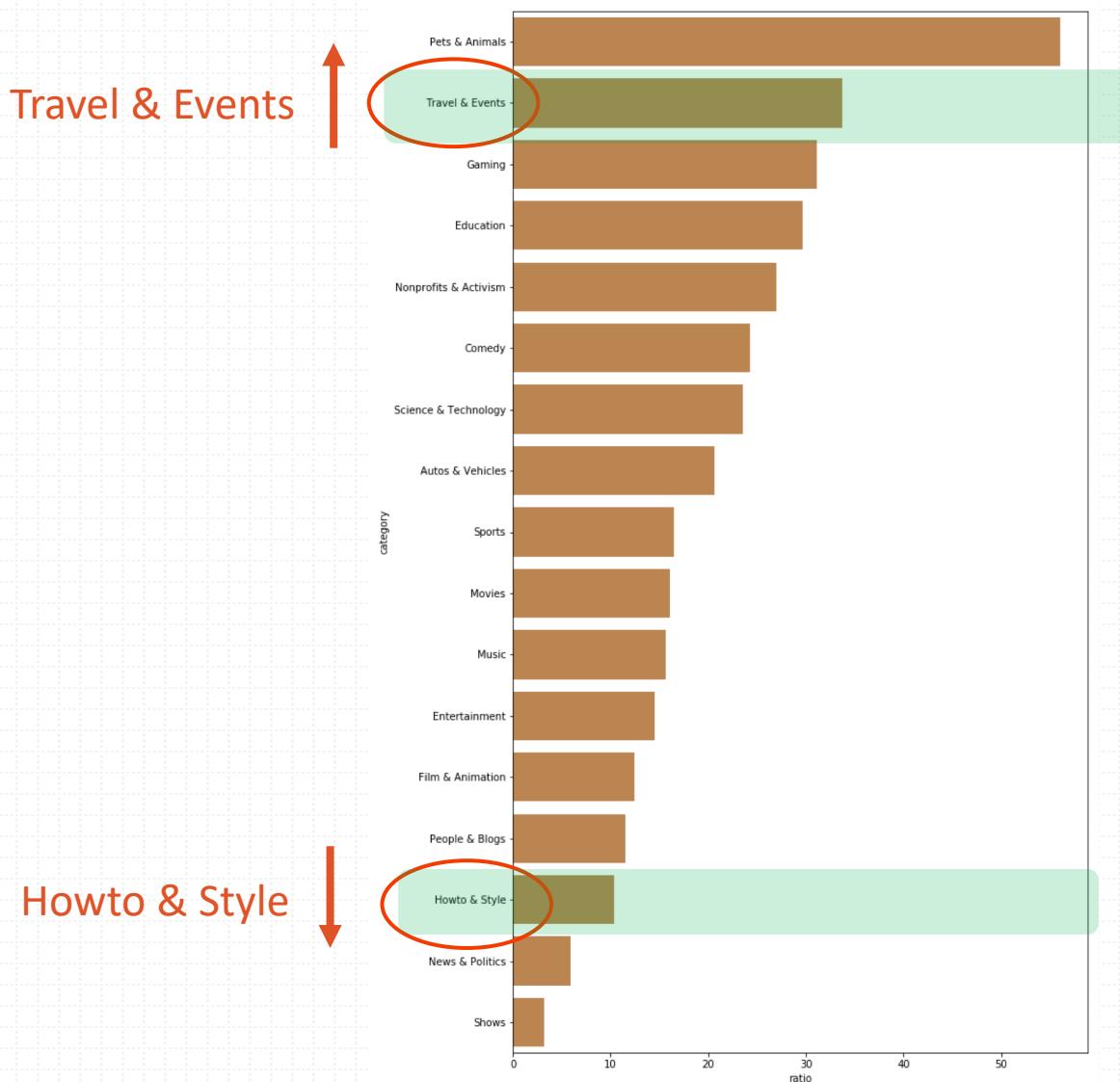


Figure 7.4: likes/dislikes ratio of each category (IN)

**THANK YOU FOR  
LISTENING**

**“And Feel Free to Ask Questions.**

**”**

# Reference

- [1] Kaggle's dataset, Mitchell J.(2019.06), 'Daily statistics for trending YouTube videos', <https://www.kaggle.com/datasnaek/youtube-new>
- [2] Scrapped YouTube's trending list, <https://developers.google.com/youtube/v3>