

# Analysis of YouTube Trending Video Data

**Terp Analytica**

Bekzod Akramov | Akshay Havalgi | Austin Hom | Vivek Sivalingam Ramanathan | Shashank Manu Rao

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# Presentation Overview

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- Introduction
- Data Preprocessing
- Data Analysis
  - Analysis 1: Likeability ratio
  - Analysis 2: Text mining and sentiment analysis
  - Analysis 3: Time-series
- Conclusions

# Introduction

- More and more people are consuming content using online video services, among which YouTube is the most popular
- YouTube provides something of interest for creators, viewers, and advertisers
- Monetization through ad revenues, so the more engagement (e.g., views, comments, likes) a video receives, the more ad revenue that can be generated





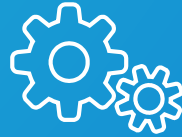
# Research Questions

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- What similarities and differences are there between trending videos in different regions (between the United States, Great Britain and India)?
- Which categories of trending videos have high likeability?
- What insights can we gain from text mining and natural language processing analyses on video titles, tags and descriptions?
- Can we make any inferences about viewer preferences based on the analysis of the video data?
- What are the implications for content creation, monetization, and advertising?

# Data Preprocessing



# The Data

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- Country-specific data on daily trending YouTube videos for a period covering several months in 2017-18 (Source: [Kaggle](#))
- Data includes the following variables/columns: category, video title, channel title, publish time, tags, views, likes and dislikes, description, and comment count
- Our project focuses on the datasets for the US, Great Britain, and India (a total of 117,397 videos)

# Data Preparation

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- Importing and merging data
- Fetching category type from json file
- Data cleaning
- Data transformation
- Feature extraction
- Indexing, selection, and filtering
- Text processing

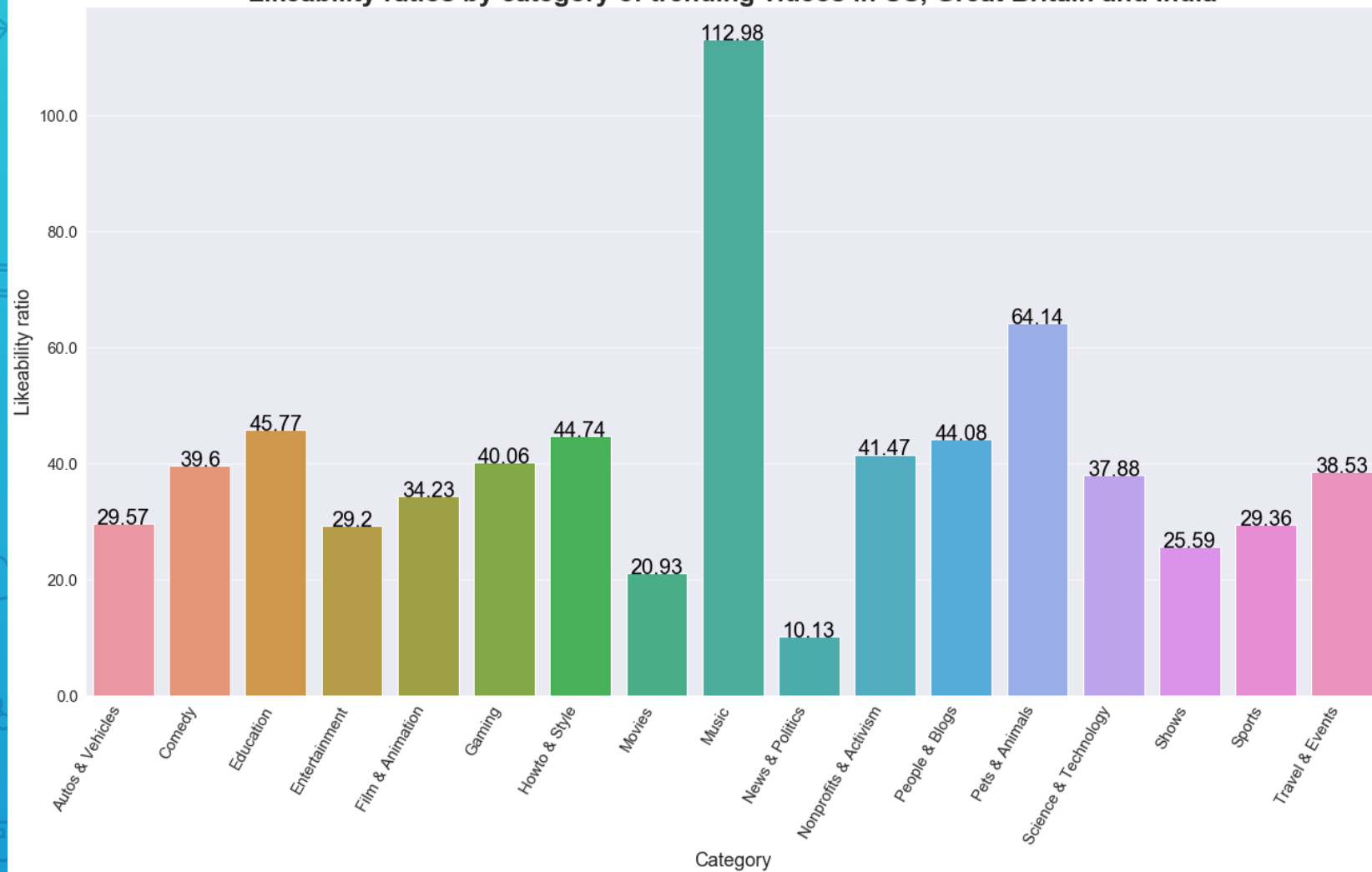


# Likeability Ratio

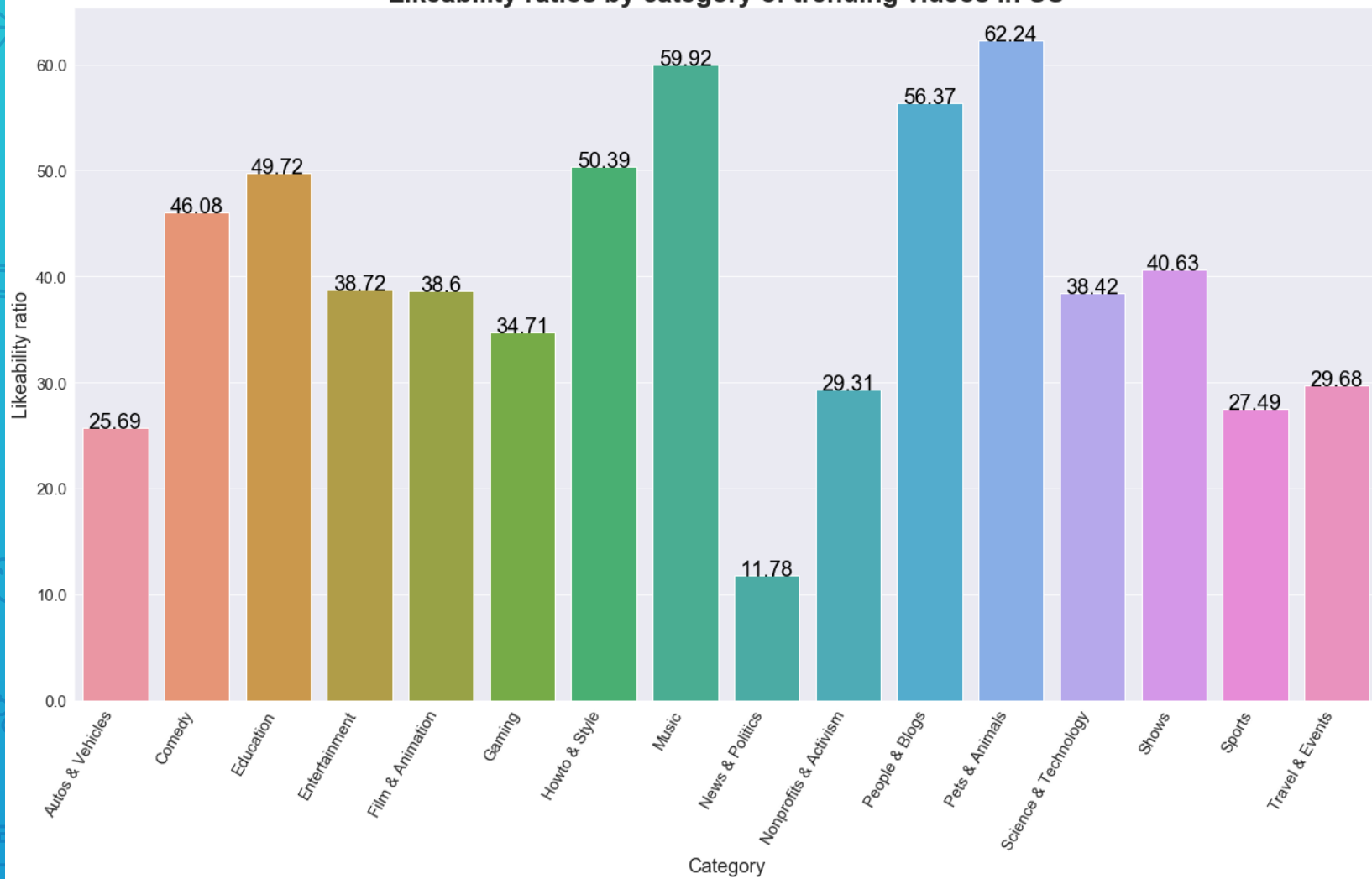




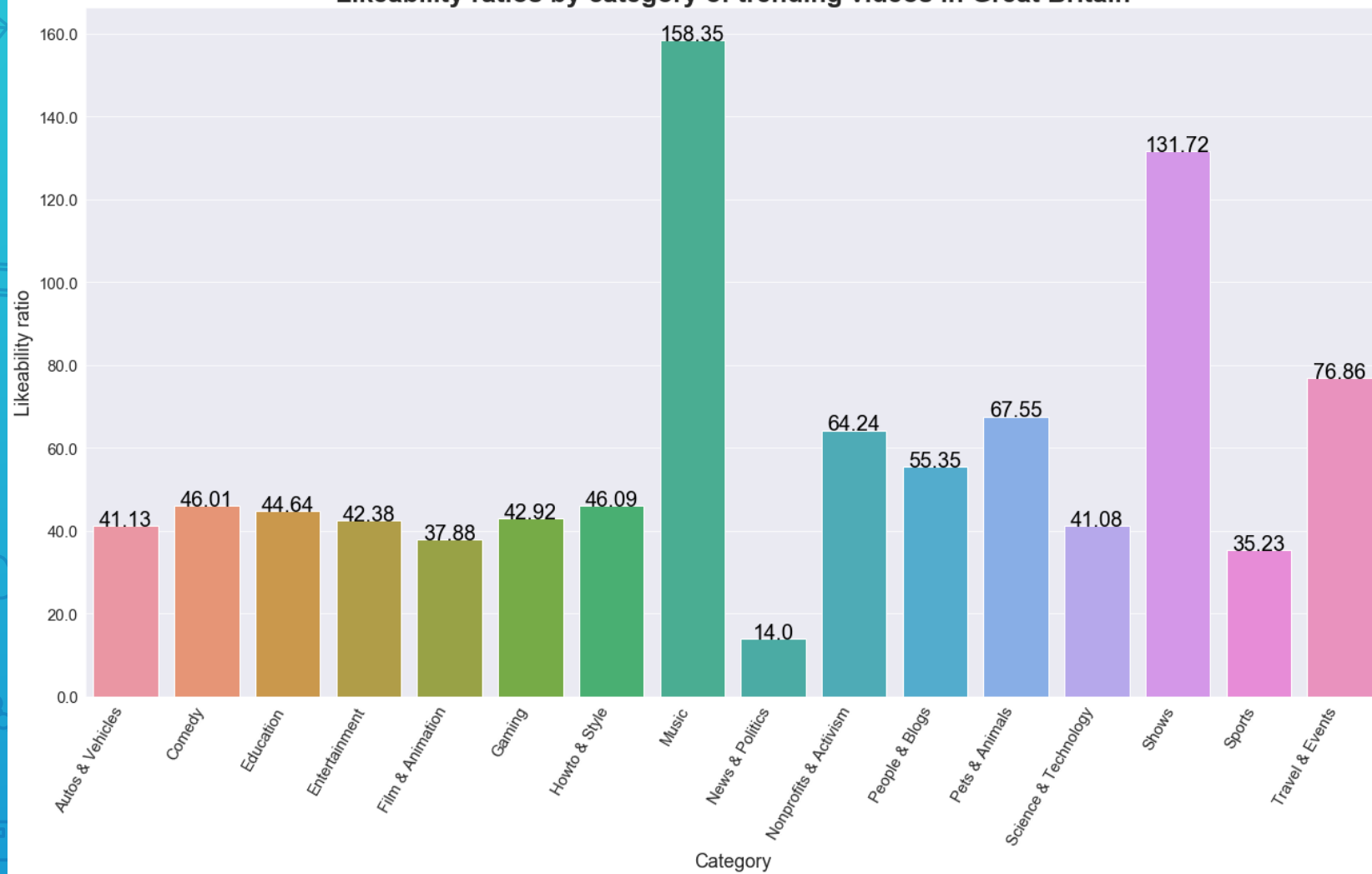
Likeability ratios by category of trending videos in US, Great Britain and India



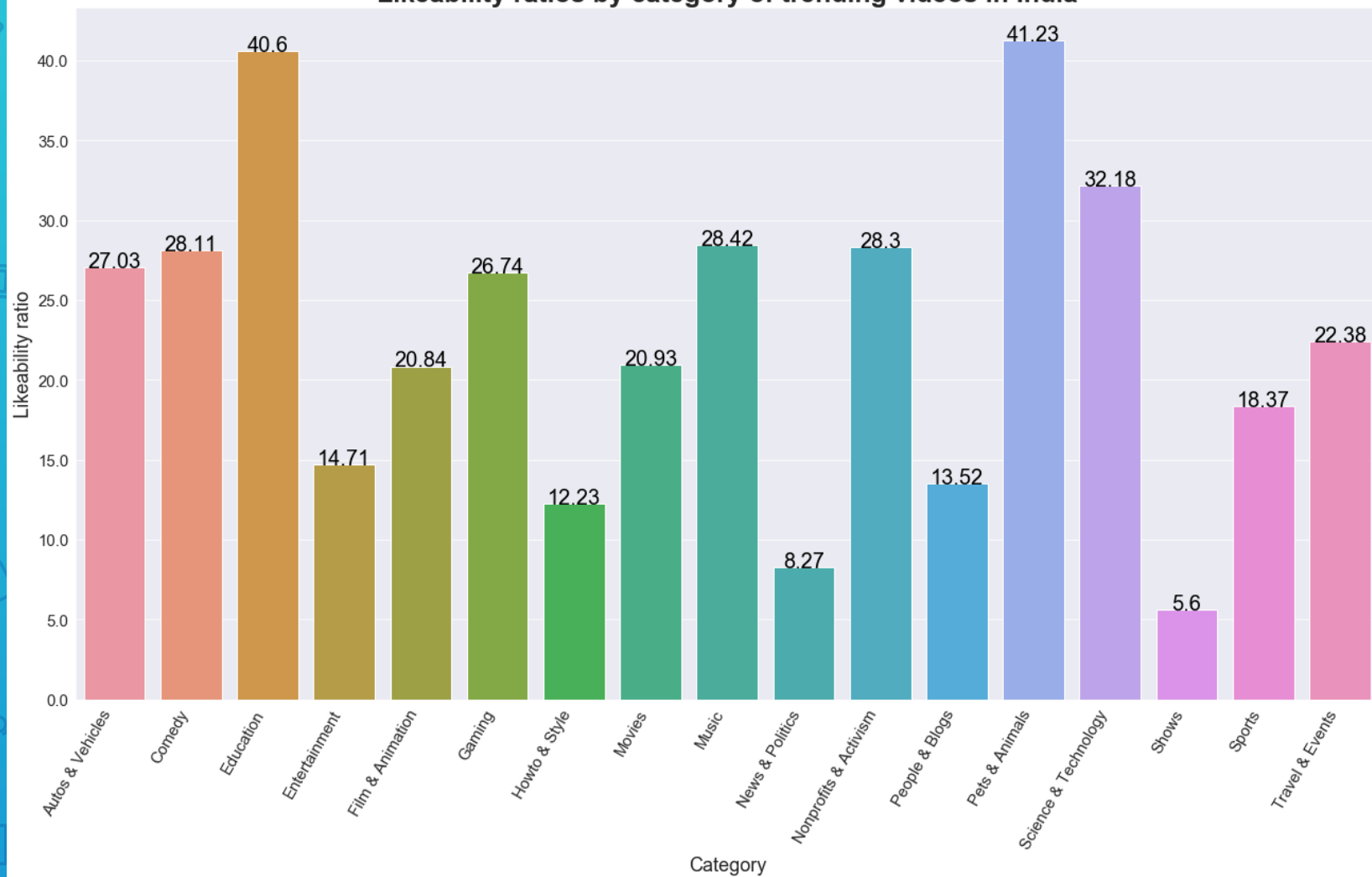
Likeability ratios by category of trending videos in US



Likeability ratios by category of trending videos in Great Britain

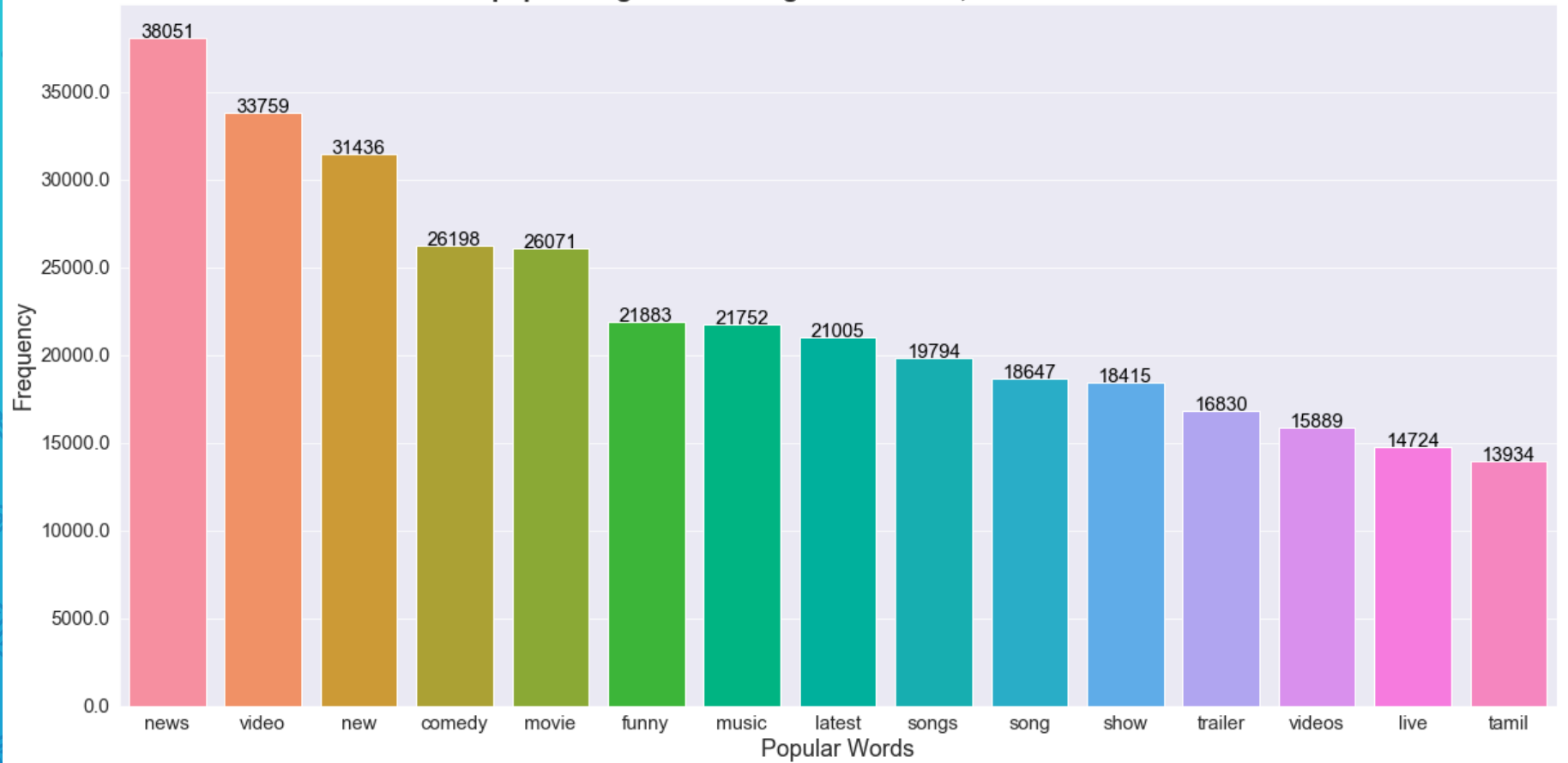


Likeability ratios by category of trending videos in India

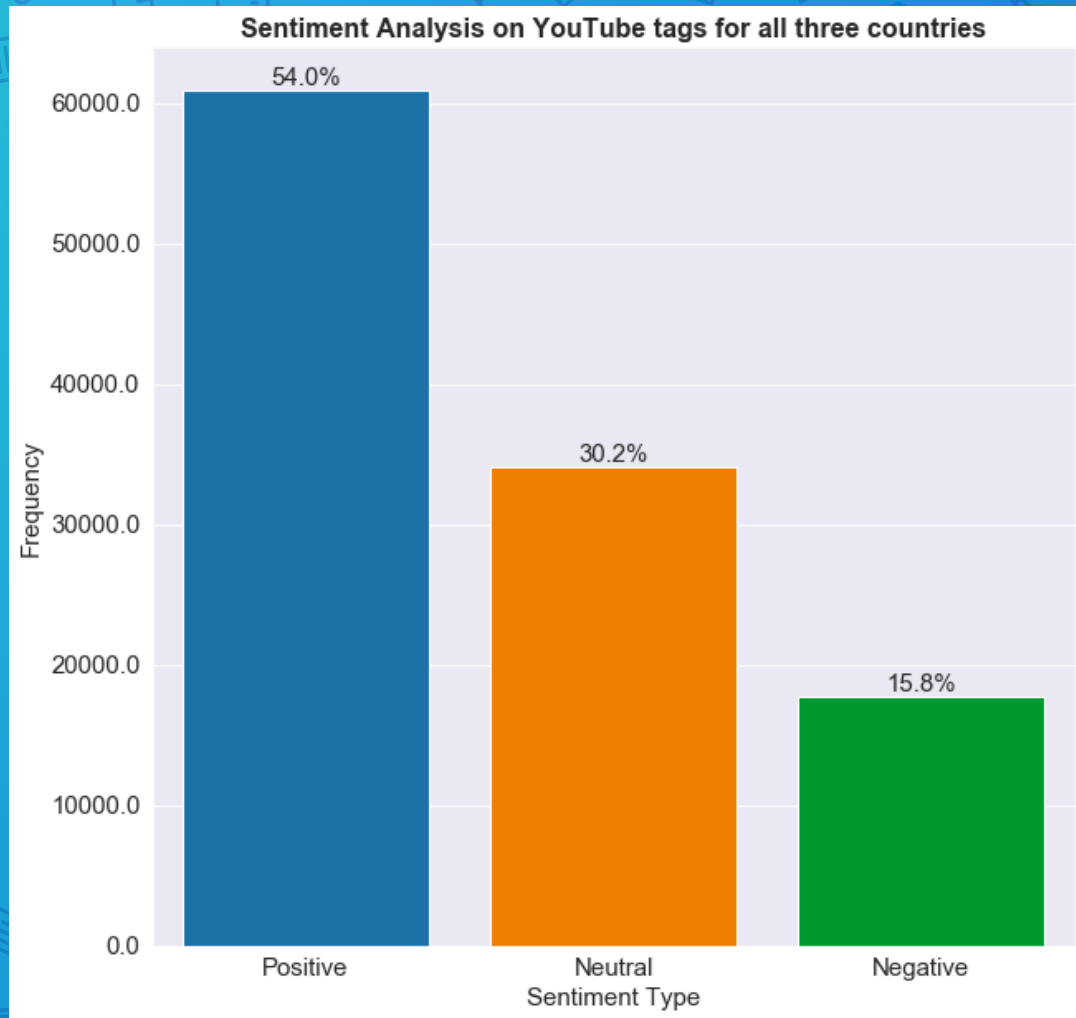


# Text mining and Sentiment Analysis

Most popular tags for trending videos in US, Great Britain and India







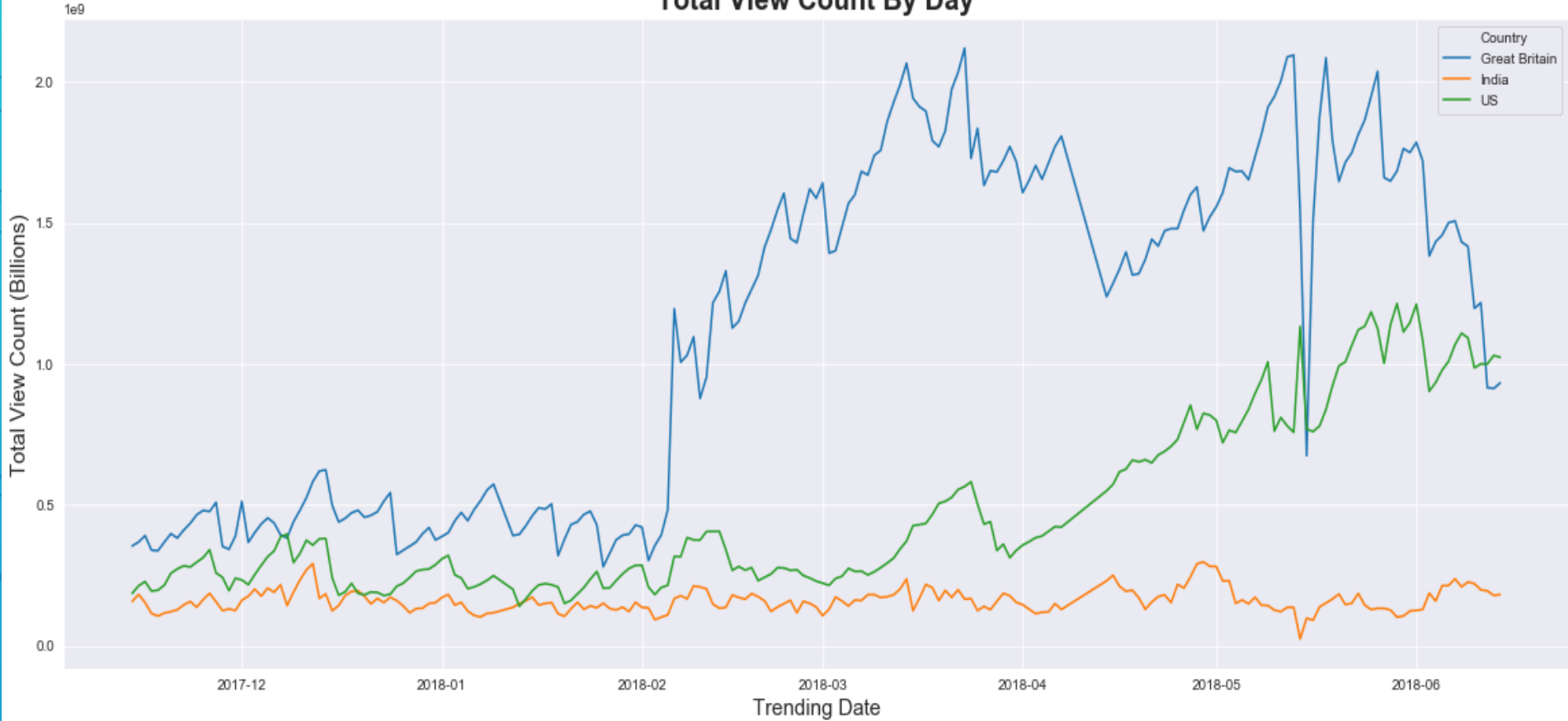


# Time-series





Total View Count By Day



# Conclusion

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- Our findings reveal quite a bit of information about trending videos on YouTube in the United States, Great Britain and India.
  - Likeability ratio by category
  - Analysis on titles, tags and descriptions
  - Time series trends of view count
- Useful insights for video content creators, advertisers and viewers in these countries.



# Thank you!

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Bekzod Akramov | Akshay Havalgi | Austin Hom | Shashank Manu Rao | Vivek Sivalingam Ramanathan