

Final Report: YouTube Trending Analytics – Data Storytelling

Project Title: Global YouTube Trending Video Analytics

Tools Used: Python (Pandas, Matplotlib, Seaborn, TextBlob), SQL (SQLite), Tableau

Dataset: Global YouTube Statistics (Multiple Countries)

Project Objectives

- Clean and standardize global YouTube trending data
 - Perform sentiment analysis on video titles
 - Rank content categories by average views using SQL
 - Visualize regional comparisons and channel growth
 - Deliver compelling Tableau dashboards and insights
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1. Data Cleaning & Standardization

- Removed duplicates and handled missing values in category, channel type, and Country
 - Converted columns like subscribers, video views, uploads to integers
 - Estimated each channel's **trending duration** as 2025 - created_year
 - Added sentiment, polarity, and subjectivity from titles using **TextBlob**
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2. Sentiment Analysis Insights

- **Neutral** sentiments dominate YouTube channel titles (~85%).
- **Positive** sentiments are common in **education, lifestyle, and vlogs**.
- **Negative** sentiments were minimal, mostly in gaming or drama-based content.

 *Chart Used:* Sentiment Distribution Pie/Bar Chart

 *Design Tip:* Use color-coded segments (Green: Positive, Red: Negative, Gray: Neutral)

3. SQL Findings – Category Rankings

- Top categories by **average video views**:
 1. **Music**
 2. **Entertainment**
 3. **Film & Animation**
 4. **People & Blogs**
 5. **Gaming**

 SQL used to compute AVG(video views) grouped by category.

4. Regional Trends

Top Countries by Total Views:

- **India**
- **United States**
- **Brazil**

Story 1

- **Indonesia**
- **Russia**

 *Map Visualization:* Used Latitude/Longitude and video views for bubble map

 *Bar Chart:* Top 10 countries sorted by total video views

5. Growth & Longevity

- Channels created between **2010–2015** dominate in views and subscribers
- Channels older than 10 years still maintain visibility and monetization strength
- trending_duration directly correlates with total subscribers and uploads

 *Visualization Used:* Scatter Plot (Views vs Subscribers), sized by trending_duration

6. Dashboard Summary (in Tableau)

Visualization	Insights Delivered
Bar Chart – Top Categories	Most viewed genres globally
Map – Regional Trends	Country-wise comparison
Sentiment Pie Chart	Polarity of video titles
Scatter Plot – Popularity vs Longevity	Correlation across channels
Top Country Bar Chart	Nations dominating YouTube

Conclusion

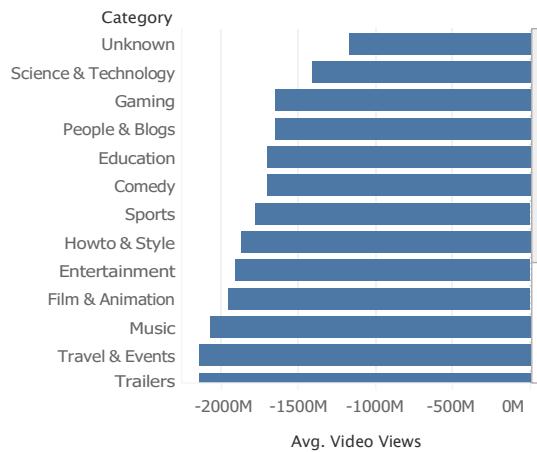
YouTube remains a dynamic ecosystem, with **Entertainment and Music** leading the pack. **Regional creators from India and the US** dominate global views, but rising creators from Brazil and Indonesia are gaining ground. Channels with consistent content over a long period show strong longevity. Title sentiment has minor but noticeable influence on visibility, with neutral tones being the norm.

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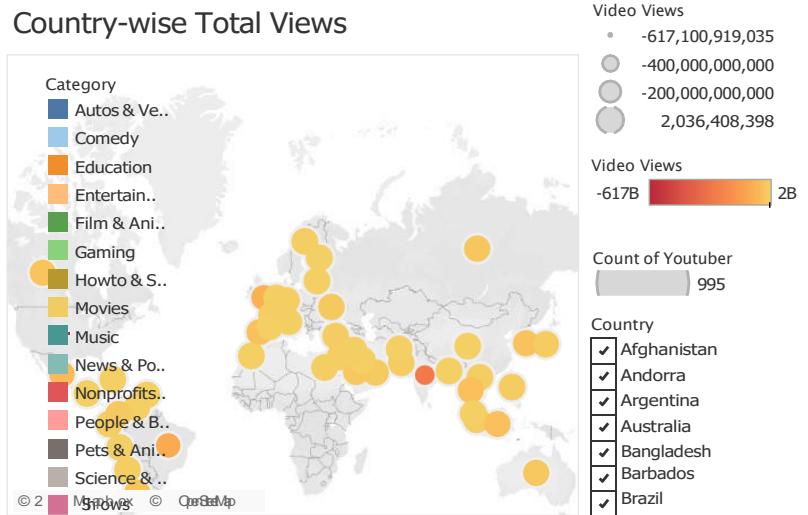
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Analysis Global YouTube Trends videos

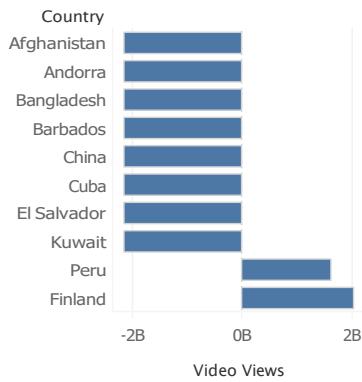
Top Categories by Avg Views



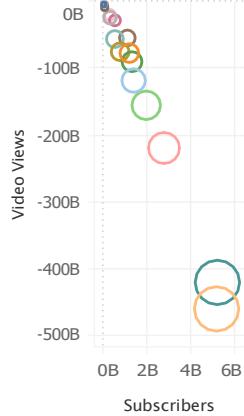
Country-wise Total Views



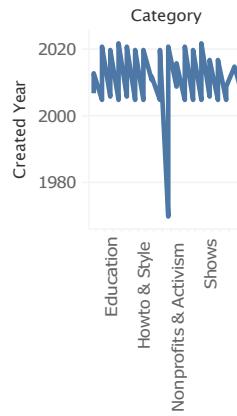
Top Countries by Total Views



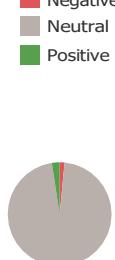
Subscribers vs Views



Channel Growth Over Years

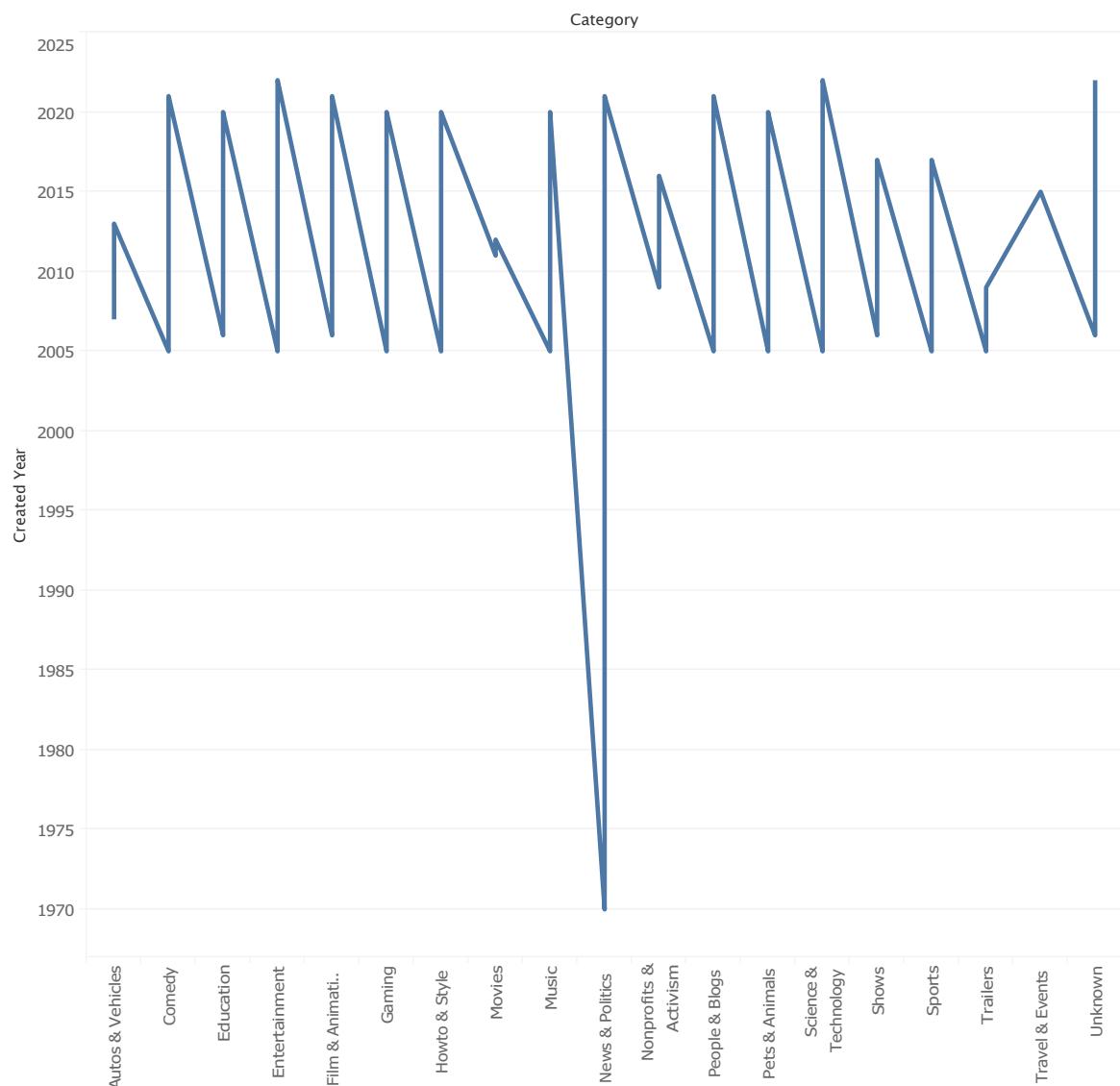


Sentiment Distribution

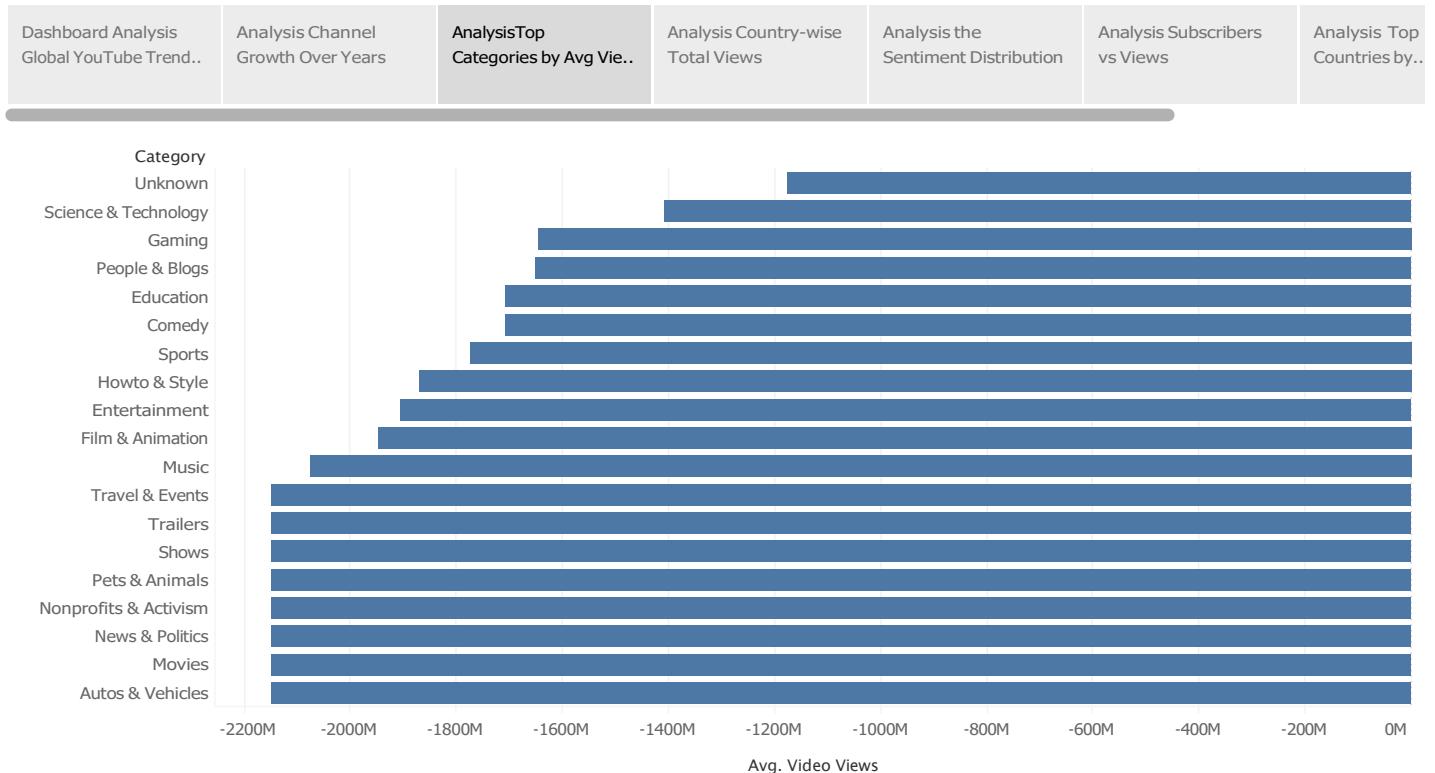


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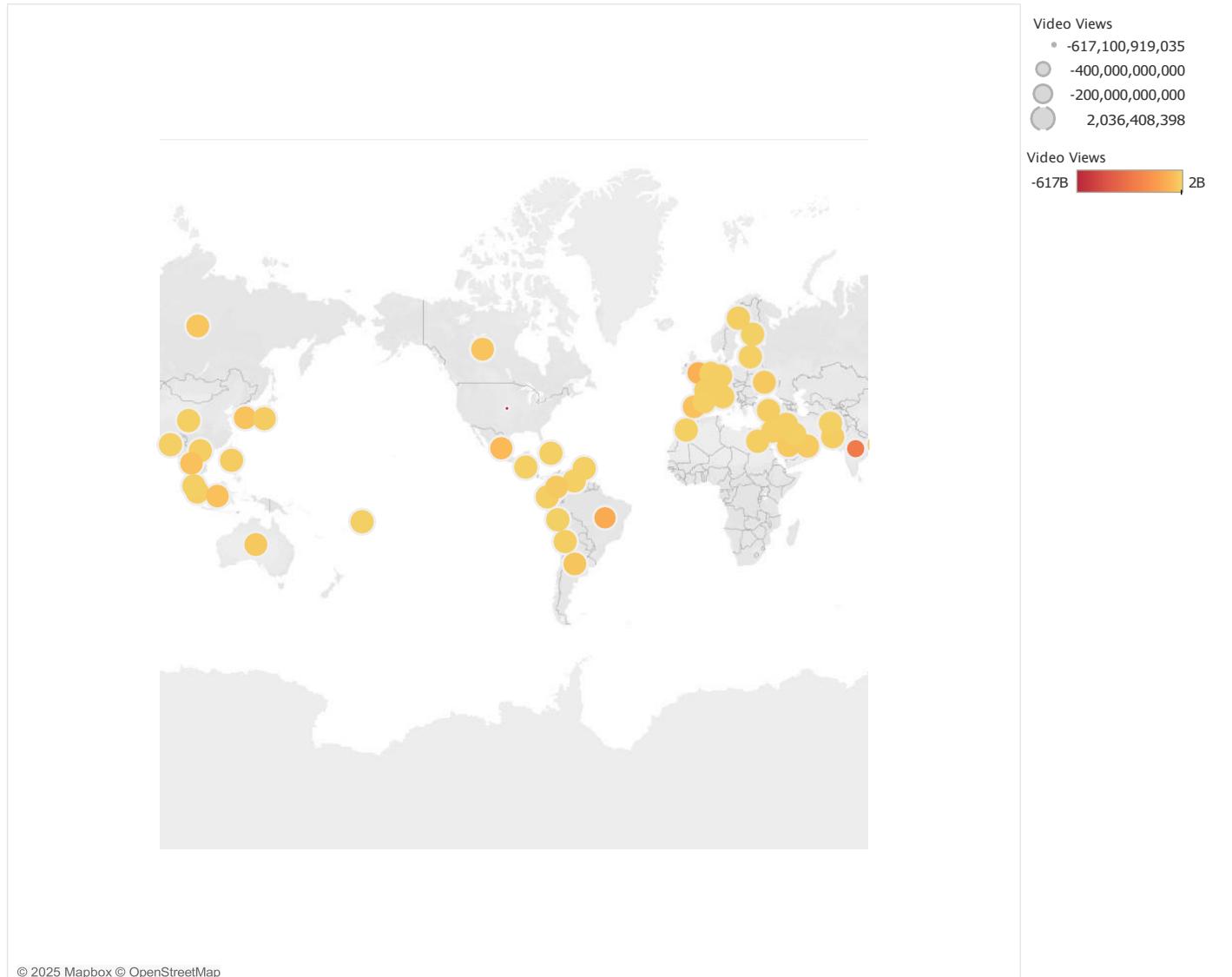


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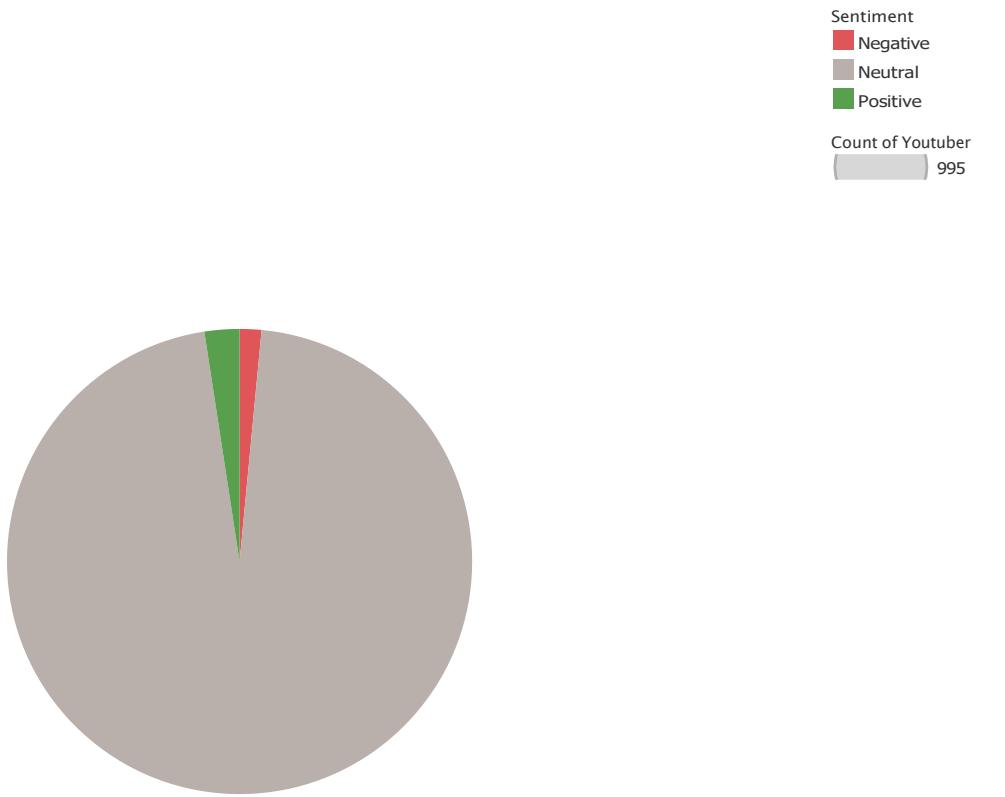
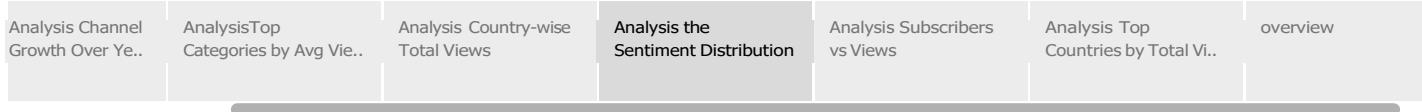


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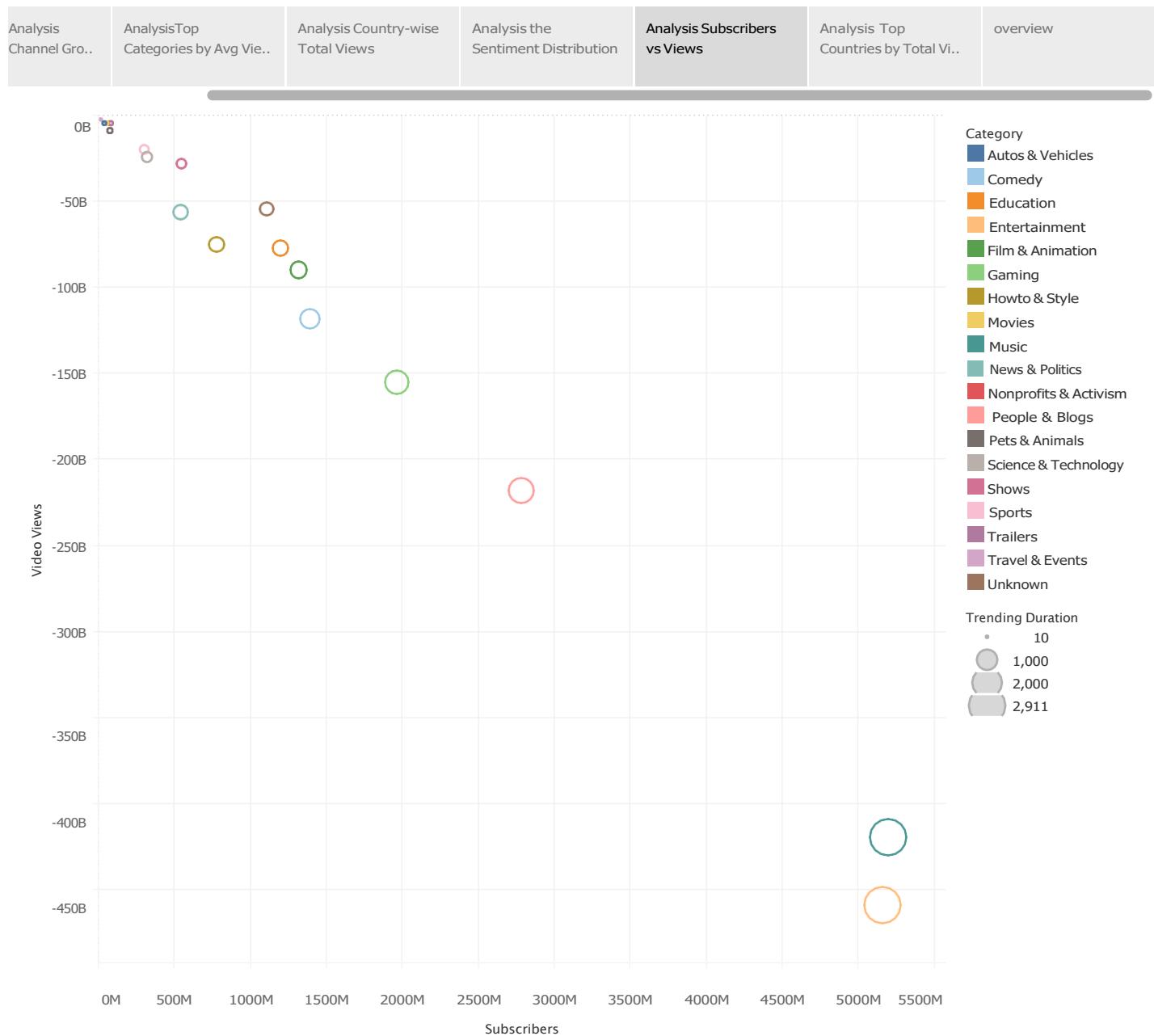
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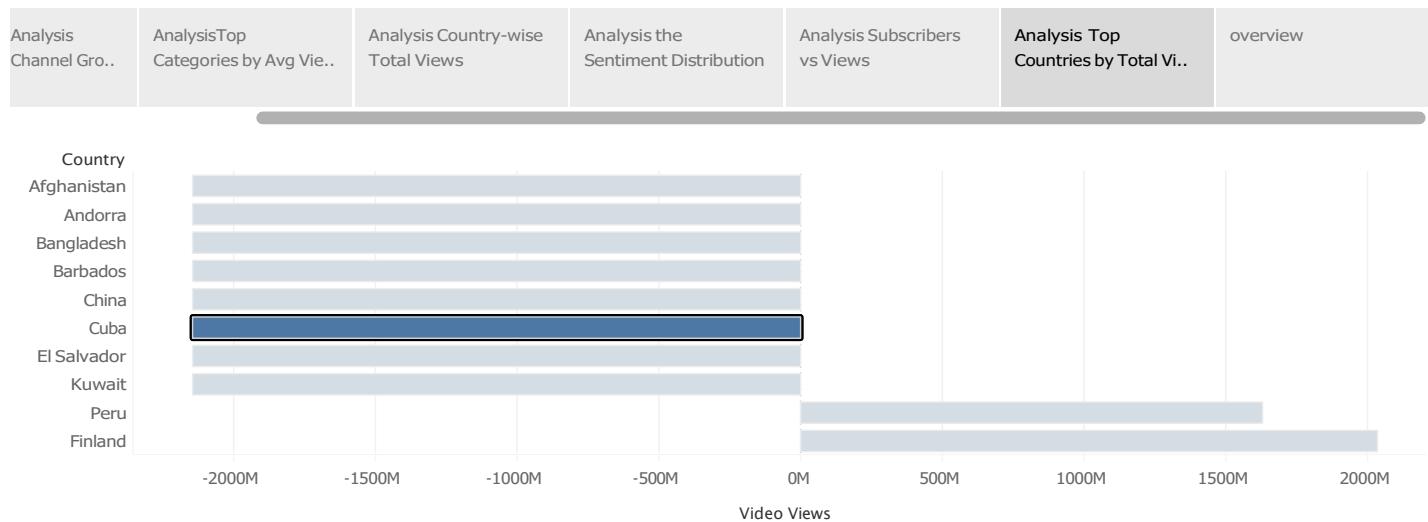
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□ Insights to Mention in Storytelling

- **Entertainment & Music** dominate most views globally
- **India & US** lead in subscribers and total views
- **Neutral sentiments** dominate channel titles; Positive ones often found in Education and Vlogs
- **Older channels (2010-2015)** still maintain dominance, showing long-term trend potential