Project Report

Date	29 October 2023
Team ID	TSK-8446681
Project Name	Subscribers Galore : Exploring World's Top Youtube Channels

1. INTRODUCTION

1.1 Project Overview

In the age of digital content supremacy, Subscribers Galore emerges as a groundbreaking initiative committed to unraveling the mysteries surrounding the world's top YouTube channels. With a surge of content creators competing for attention, it becomes crucial to comprehend the strategies that lead to substantial subscriber counts.

1.2 Purpose

Subscribers Galore aspires to go beyond the superficial, dissecting the genetic makeup of successful YouTube channels. The project seeks to offer invaluable insights for content creators, marketers, and enthusiasts eager to decipher the formula for constructing a massive subscriber base.

2. LITERATURE SURVEY

2.1 Existing Problem

Navigating the crowded digital landscape presents a significant challenge for content creators. Gaining visibility and amassing a substantial audience is a common struggle. Subscribers Galore aims to address this issue by deciphering the success stories of top YouTube channels.

2.2 References

Our exploration commences by delving into a myriad of sources, ranging from academic studies on digital content consumption to industry reports and case studies of successful YouTube creators. These references serve as the foundation upon which we construct our analytical framework.

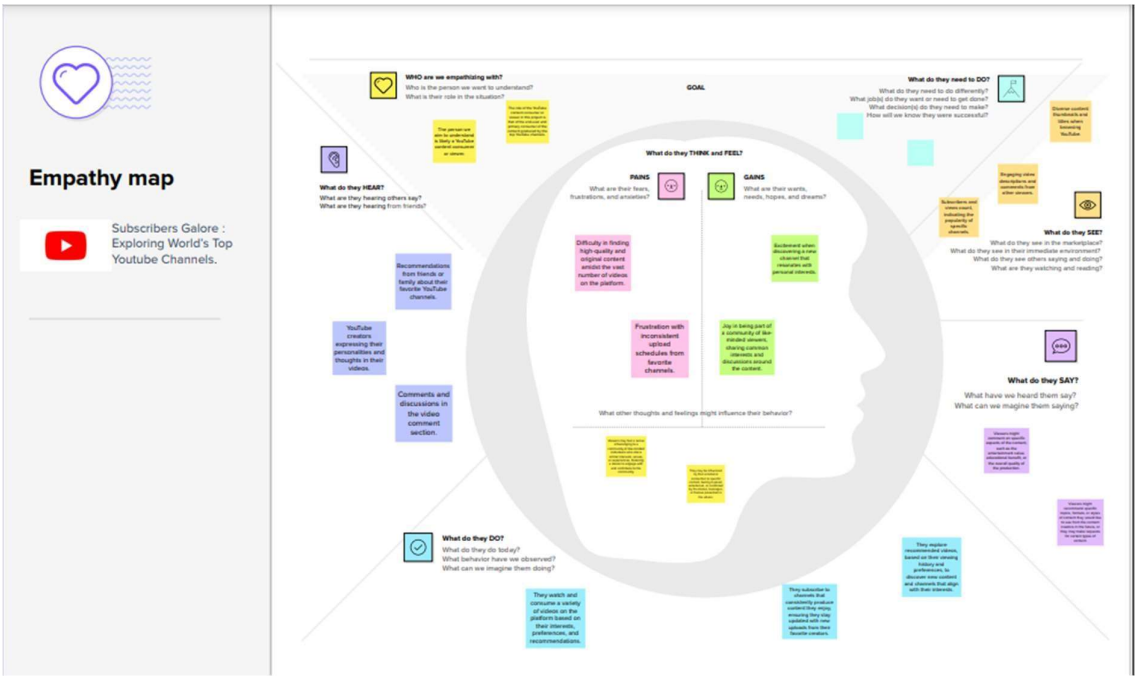
2.3 Problem Statement Definition

Subscribers Galore aims to address the pivotal question: What distinguishes top YouTube channels? Understanding the patterns and practices contributing to their impressive subscriber counts is the crux of our exploration.

3. IDEATION & PROPOSED SOLUTION

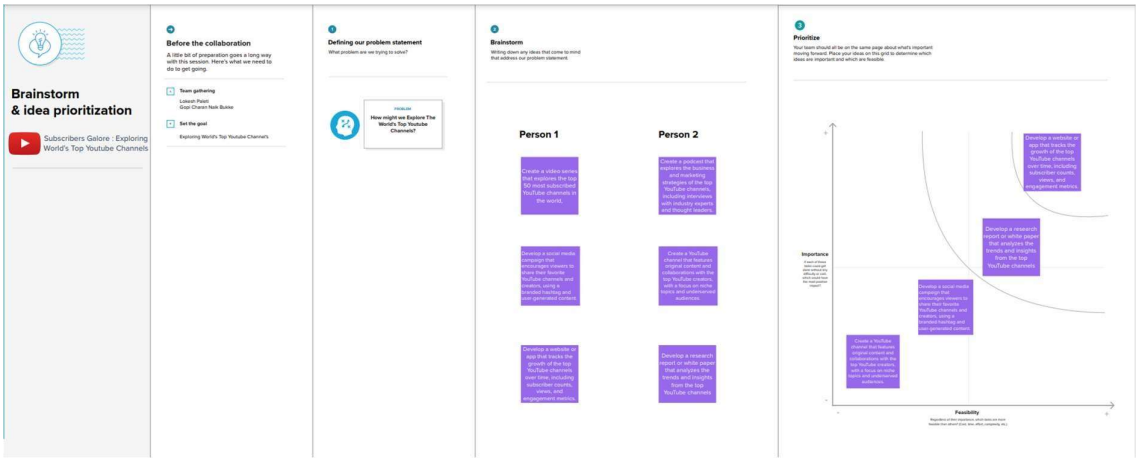
3.1 Empathy Map Canvas

To connect with our audience – both creators and viewers – we employ an empathy map canvas. This visual tool enables us to empathize with their needs, allowing us to tailor our analysis to what truly matters to them.



3.2 Ideation & Brainstorming

Our ideation process is a dynamic exchange of ideas, a digital brainstorming session that sparks innovative approaches. The proposed solution involves a comprehensive analysis, encompassing content scrutiny, sentiment tracking, and engagement metrics.



4. REQUIREMENT ANALYSIS

4.1 Functional Requirement

Our toolkit encompasses content analysis tools, sentiment algorithms, and engagement trackers. These functionalities empower us to dissect content, understand audience sentiments, and assess the effectiveness of engagement strategies.

4.2 Non-Functional Requirements

Ensuring our system's scalability, security, and performance is paramount. Given the extensive dataset we anticipate, a robust infrastructure is crucial to our success.

5. PROJECT DESIGN

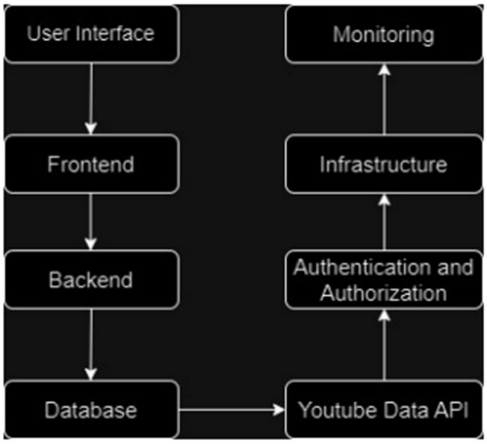
5.1 Data Flow Diagrams & User Stories

Our data flow diagrams illustrate the journey from YouTube channels to our analysis tools. User stories add a human touch, narrating the expected interactions and experiences within our system.

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Release
Customer (Mobile user)	Registration	USN-1	As a user, I can register for the application by entering my email, password, and confirmingmy password.	I can access my account /dashboard	High	Sprint-1
		USN-2	As a user, I will receive confirmation emailonce I have registered for the application	I can receive confirmationemail & click confirm	High	Sprint-1
		USN-3	As a user, I can register for the applicationthrough Facebook	I can register & access thedashboard with Facebook Login	Low	Sprint-2
		USN-4	As a user, I can register for the applicationthrough Gmail		Medium	Sprint-1
	Login	USN-5	As a user, I can log into the application byentering email & password		High	Sprint-1
	Dashboard					
Customer (Webuser)						
Customer Care Executive						
Administrator						

5.2 Solution Architecture

Envision our solution as an architectural masterpiece, integrating content analysis modules, sentiment engines, and engagement metric trackers. This modular design ensures flexibility and adaptability.



6. PROJECT PLANNING & SCHEDULING

6.1 Technical Architecture

Behind the scenes, our technical architecture is a symphony of technologies, databases, and frameworks. This transparent overview clarifies the intricacies of our project's foundation.

S.No	Component	Description	Technology
1.	Frontend	Web Application: Developing a web-based user interface for easy access.	React.js & Redux
2.	Backend	Server-side Logic: Implementing the backend logic to data processing, analysis, and user requests. RESTful API: Create a RESTful API to interact with the frontend and retrieve data.	Node.js & Express.js
3.	Database	Database Management System (DBMS): Using a DBMS to store and manage data efficiently. Database Design: Designing a database schema that supports the storage of YouTube channel information, subscriber counts.	PostgreSQL & MongoDB
4.	Web Scarping	Web Scraping Module: Implementing a web scraping module to collect data from YouTube channels. Scraping Scheduler: Schedule periodic scrapes to keep data up-to-date.	Python
5.	Data Analysis	Data Processing Engine: For data processing and analysis. Algorithm Implementation: Implementing algorithms to identify trends, patterns, and correlations in the data.	Python, Pandas & Numpy
6.	YouTube API Integration	Integration Module: Integrating the YouTube API to gather detailed information about channels, videos, and user engagement. Authentication: Implementing secure authentication for accessing the API.	Python (Google API Client Library)
7.	Authentication and Authorization	User Authentication: Securing user authentication for accessing personalized features. Authorization: Implementing role-based access control to manage user privileges.	JWT(JSON Web Tokens) & Passport.js
8.	Caching	Cache Layer: Implementing caching mechanisms to improve performance and reduce redundant API calls.	Redis
9.	Data Visualization	Visualization Libraries: Using libraries for interactive and informative data visualization. Dashboard: Create a user-friendly dashboard for visualizing channel statistics and trends.	Tableau, IBM, Power BI
10.	Collaboration and Social Features	User Interaction Features: Implementing features that allow users to share findings, comment on channels, and collaborate. Notification System: Notifying users of updates or new insights.	WebSocket(Socket.io), Firebase Realtime Database
11.	Deployment	Cloud Hosting: Considering deploying your application on cloud platforms. Containerization: Using containerization to ensure consistent deployment across environments.	Docker, Heroku, AWS, Azure or Google Cloud

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	Web Application Framework Frontend Framework Data Processing Framework API Framework Content Management System (CMS)	Django React Apache Spark Flask WordPress
2.	Security Implementations	Authentication and Authorization Data Encryption Secure APIs Regular Security Audits Monitoring and Logging	OAuth 2.0 Transport Layer Security (TLS) API keys Security audit tools (SIEM) systems
3.	Scalable Architecture	Microservices Architecture Elastic Compute Resources Horizontal Scaling Load Balancing Database Sharding	Docker Istio Amazon Web Services (AWS) AWS Auto Scaling HAProxy
4.	Availability	Redundancy Fault Tolerance Backup and Disaster Recovery Monitoring and Alerting Load Balancing	Pacemaker Keepalived Veeam Nagios F5 BIG-IP
5.	Performance	Content Delivery Optimization Browser Caching Minification and Compression Lazy Loading Database Optimization Caching Mechanisms Load Testing Optimized Code	Amazon CloudFront Cache-Control headers UglifyJS LazyLoad.js Indexing: B-tree, Hash, Bitmap indexes Redis Apache JMeter Chrome DevTools, Visual Studio Profiler ESLint (JavaScript), Stylelint (CSS)

6.2 Sprint Planning & Estimation

Our project unfolds in sprints, each meticulously planned and estimated. This iterative approach allows us to navigate the development process with agility and precision.

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
Sprint-1	Authentication System	USN-1	Implementing user Login	5	High	A1 & A2
Sprint-1	Authentication System	USN-2	Reset Password Feature	3	Medium	A3 & A4
Sprint-1	Payment Integration	USN-3	Integrating Payment Gateway	8	High	A1 & A3
Sprint-2	User Profile Management	USN-4	Implementing user profile page	5	Medium	A2 & A4
Sprint-2	User Profile Management	USN-5	Allow profile picture upload	3	Low	A1 & A3

6.3 Sprint Delivery Schedule

Refer to our sprint delivery schedule, a roadmap guiding us through the phases of the project. Timely delivery is not just a goal; it's a commitment.

Sprint	Total Story Points	Duration	Sprint Start Date	Sprint End Date (Planned)	Story Points Completed (as on Planned End Date)	Sprint Release Date (Actual)
Sprint-1	20	2 weeks	01 Sep 2023	14 Sep 2023	18	16 Sep 2023
Sprint-2	25	3 weeks	15 Sep 2023	05 Oct 2023	22	03 Oct 2023
Sprint-3	18	2 weeks	06 Oct 2023	19 Oct 2023	18	18 Oct 2023
Sprint-4	30	3 weeks	20 Oct 2023	09 Nov 2023	30	10 Nov 2023

7. CODING & SOLUTIONING

7.1 Feature 1

Witness the magic of our inaugural feature: content analysis. Through the lens of natural language processing, we unveil the keywords, topics, and patterns that captivate audiences.

7.2 Feature 2

Our second feature, driven by sentiment analysis, delves into the sea of audience comments. Machine learning models decode sentiments, painting a nuanced picture of viewer reactions.

7.3 Database Schema (if Applicable)

The backbone of our project lies in the structured database schema. Tables housing metadata, user interactions, and sentiment results ensure efficient data retrieval and analysis.

8. PERFORMANCE TESTING

8.1 Performance Metrics

Our performance testing metrics scrutinize response times, scalability, and system reliability. This meticulous evaluation guarantees a seamless user experience, even under the weight of copious data.

9. RESULTS

9.1 Output Screenshots

Witness tangible results through a gallery of screenshots. These visuals offer a glimpse into the practical application of our analysis tools.

No of channels with Brand
Brand channel
Count of Rank
34
32
30
28
26
24
22
20
18
16
14
12
10
8
6
4
2
0
32
18
No
Yes
Brand channel
No
Yes

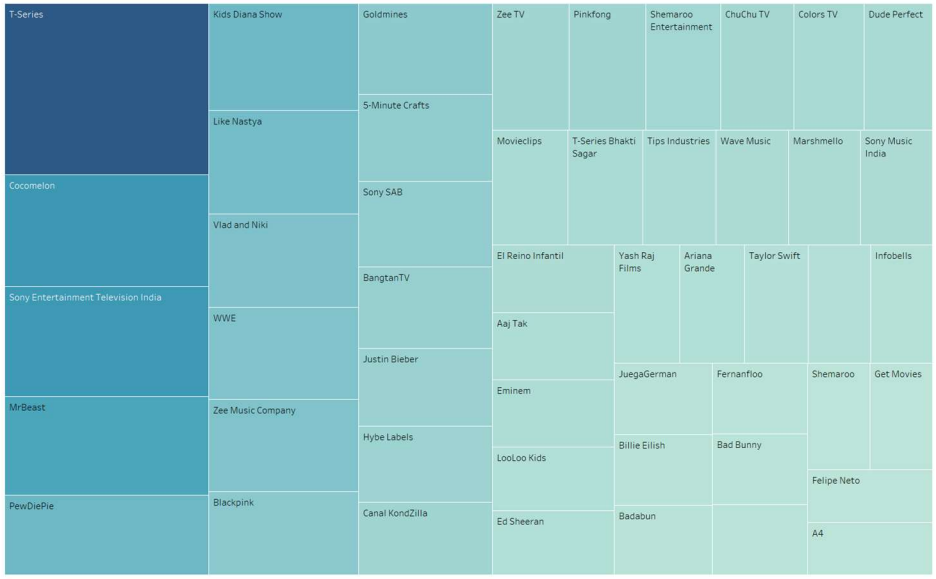
Channel Brand

Name	Brand channel No	Yes
5-Minute Crafts		Yes
A4	No	
Aaj Tak		Yes
Ariana Grande	No	
Bad Bunny	No	
Badabun		Yes
BangtanTV	No	
Billie Eilish	No	
BillionSurpriseToys		Yes
Blackpink		Yes
Canal KondZilla		Yes
ChuChu TV		Yes
Cocomelon		Yes
Colors TV		Yes
Dude Perfect	No	
Ed Sheeran	No	
El Reino Infantil		Yes
Eminem	No	
Felipe Neto	No	
Fernanfloo	No	
Get Movies		Yes
Goldmines		Yes
Hybe Labels		Yes
Infobells		Yes
JuegaGerman	No	
Justin Bieber	No	
Kids Diana Show		Yes
Like Nastya	No	
LooLoo Kids		Yes
Marshmello	No	
Movieclips		Yes
MrBeast	No	
PewDiePie	No	
Pinkfong		Yes
Shemaroo		Yes
Shemaroo Entertain..		Yes
Sony Entertainment ..		Yes
Sony Music India		Yes
Sony SAB		Yes
SonyMusicIndiaVEVO		Yes
T-Series		Yes
T-Series Bhakti Sagar		Yes
Taylor Swift	No	
Tips Industries		Yes

Brand channel
No
Yes

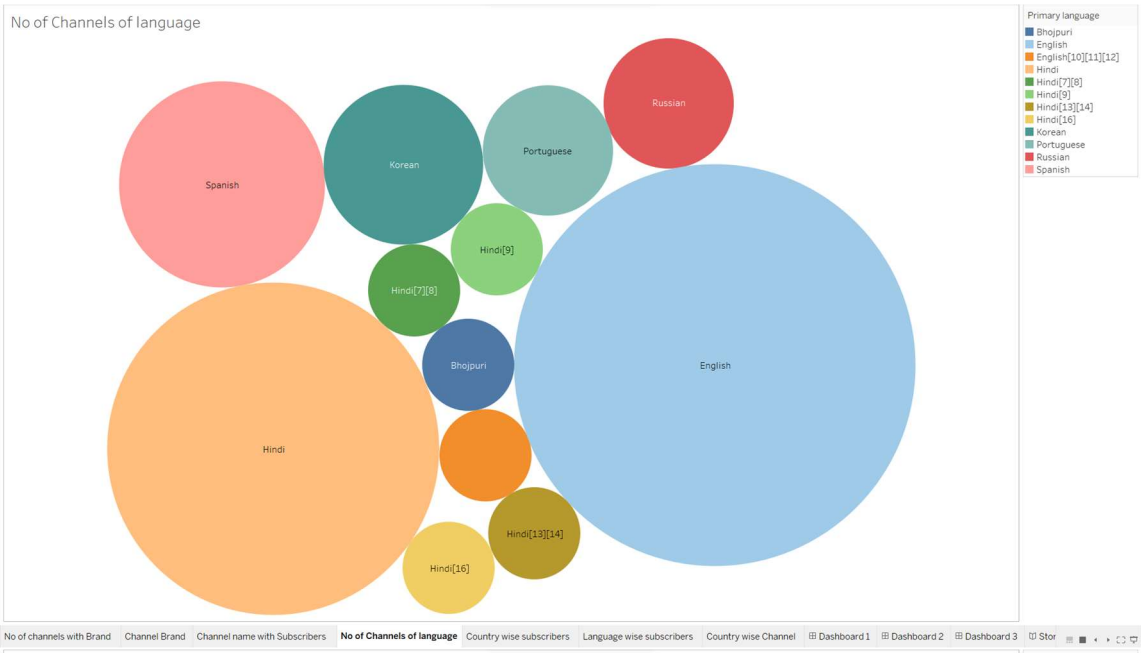
No of channels with Brand | Channel Brand | Channel name with Subscribers | No of Channels of language | Country wise subscribers | Language wise subscribers | Country wise Channel | Dashboard 1 | Dashboard 2 | Dashboard 3 | Stor

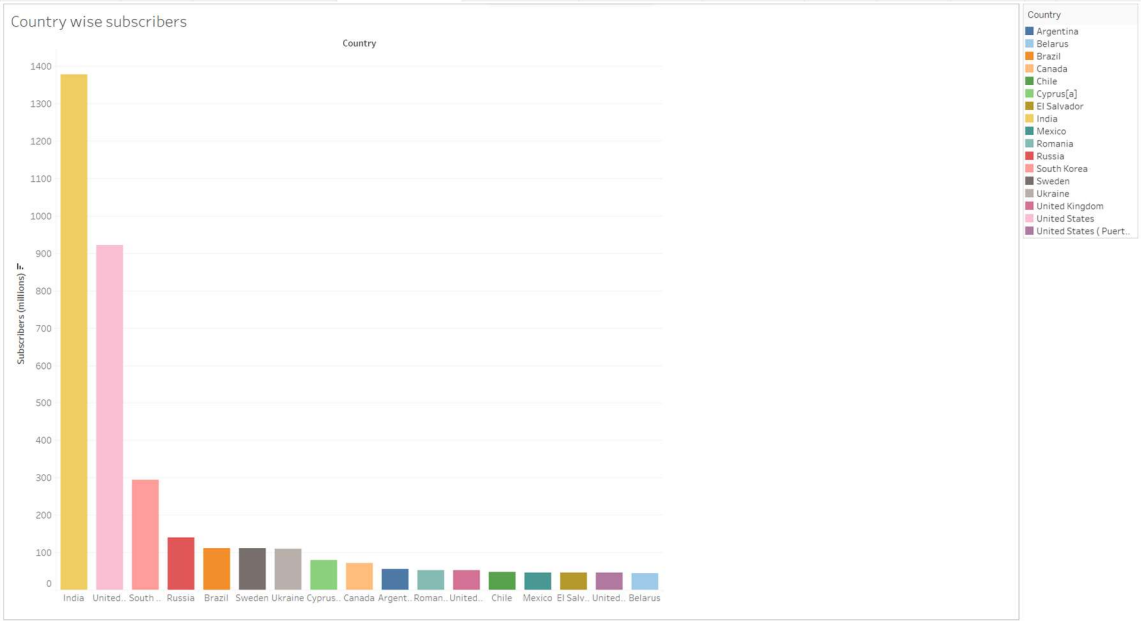
Channel name with Subscribers



SUM(Subscribers (milli...
44.6
238.0

No of channels with Brand | Channel Brand | Channel name with Subscribers | No of Channels of language | Country wise subscribers | Language wise subscribers | Country wise Channel | Dashboard 1 | Dashboard 2 | Dashboard 3 | Stor


No of Channels of language
Spanish
Korean
Portuguese
Russian
Hindi[9]
Hindi[7][8]
Bhojpuri
English
Hindi
Hindi[13][14]
Hindi[16]
Primary language
Bhojpuri
English
English[10][11][12]
Hindi
Hindi[7][8]
Hindi[9]
Hindi[13][14]
Hindi[16]
Korean
Portuguese
Russian
Spanish


Country wise subscribers
Country
Subscribers (millions) F..
1400
1300
1200
1100
1000
900
800
700
600
500
400
300
200
100
0
India
United..
South ..
Russia
Brazil
Sweden
Ukraine
Cyprus..
Canada
Argent..
Roman..
United..
Chile
Mexico
El Salv..
United..
Belarus
Country
Argentina
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Brazil
Canada
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India
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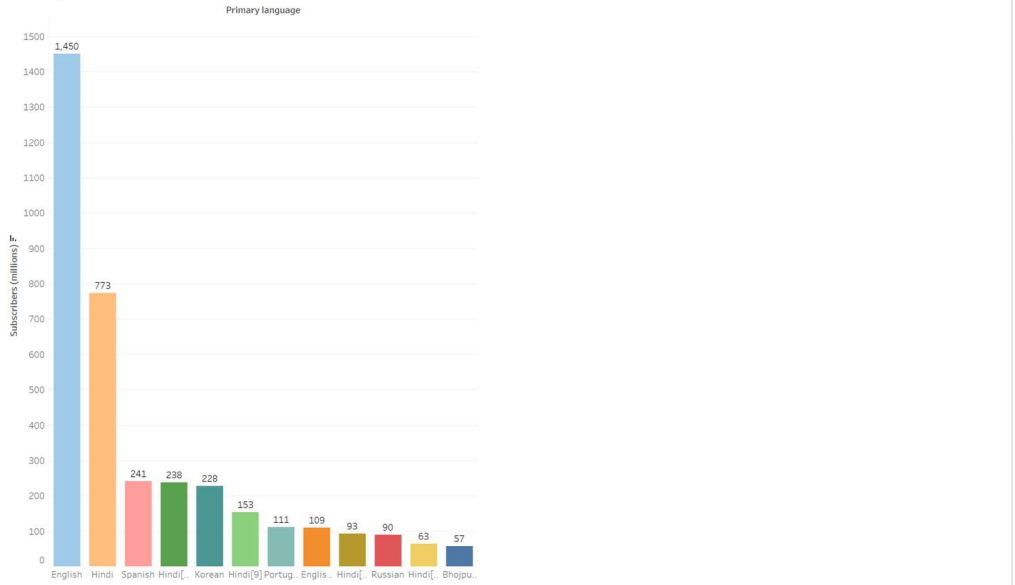
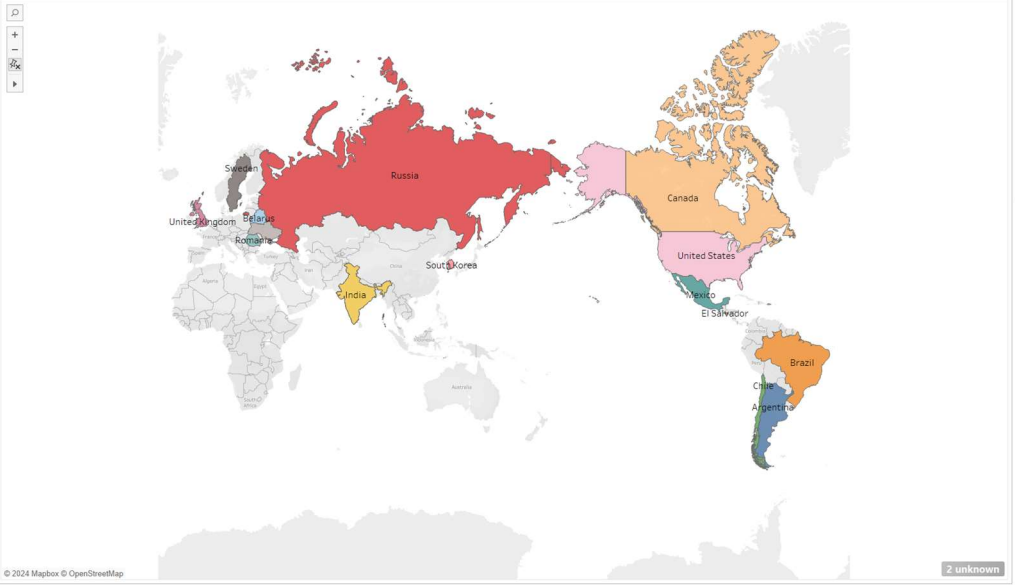
Romania
Russia
South Korea
Sweden
Ukraine
United Kingdom
United States
United States (Puert..

Language wise subscribers



No of channels with Brand | Channel Brand | Channel name with Subscribers | No of Channels of language | Country wise subscribers | **Language wise subscribers** | Country wise Channel | Dashboard 1 | Dashboard 2 | Dashboard 3 | Stor

Country wise Channel

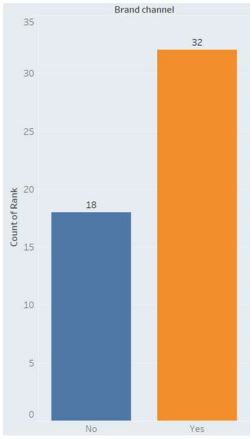


No of channels with Brand | Channel Brand | Channel name with Subscribers | No of Channels of language | Country wise subscribers | Language wise subscribers | **Country wise Channel** | Dashboard 1 | Dashboard 2 | Dashboard 3 | Stor

Rank wise Channel

Name	
T-Series	1
Cocomelon	2
Sony Entertainment ..	3
MrBeast	4
PewDiePie	5
Kids Diana Show	6
Like Nastya	7
Vlad and Niki	8
WWE	9
Zee Music Company	10
Blackpink	11
Goldmines	12
5-Minute Crafts	13
Sony SAB	14
BangtanTV	15
Justin Bieber	16
Hybe Labels	17
Canal KondZilla	18
Zee TV	19
Pinkfong	20
Shemaroo Entertain..	21
ChuChu TV	22
Colors TV	23
Dude Perfect	24
Movieclips	25
T-Series Bhakti Sagar	26
Tips Industries	27
Wave Music	28
Marshmello	29
Sony Music India	30
El Reino Infantil	31
Aaj Tak	32

No of channels with Brand



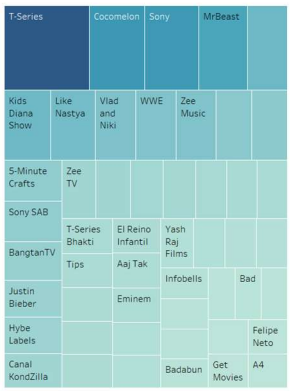
Brand channel
No
Yes

Channel Brand

Name	Brand channel: No	Yes
5-Minute Crafts		Yes
A4	No	
Aaj Tak		Yes
Ariana Grande	No	
Bad Bunny	No	
Badabun		Yes
BangtanTV	No	
Billie Eilish	No	
BillionSurpriseTo..		Yes
Blackpink		Yes
Canal KondZilla		Yes
ChuChu TV		Yes
Cocomelon		Yes
Colors TV		Yes
Dude Perfect	No	
Ed Sheeran	No	
El Reino Infantil		Yes
Eminem	No	
Felipe Neto	No	
Fernanfloo	No	
Get Movies		Yes
Goldmines		Yes
Hybe Labels		Yes
Infobells		Yes
JuegaGerman	No	
Justin Bieber	No	
Kids Diana Show		Yes
Like Nastya	No	

Subscribers (millions)
44.6 — 238.0

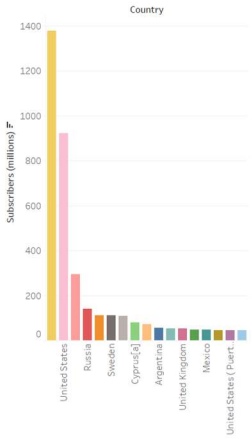
Channel name with Subscribers



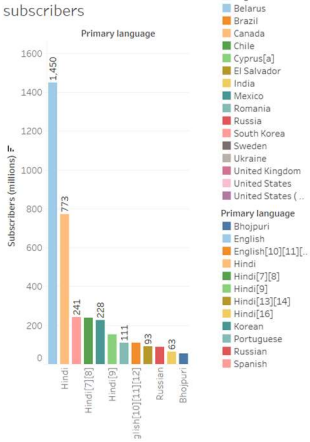
No of Channels of language

Primary language
- Bhojpuri
- English
- English[10][11][12]
- Hindi
- Hindi[7][8]
- Hindi[9]
- Hindi[13][14]
- Hindi[16]
- Korean
- Portuguese
- Russian
- Spanish

Country wise subscribers



Language wise subscribers



No of channels with Brand | Channel Brand | Channel name with Subscribers | No of Channels of language | Country wise subscribers | Language wise subscribers | Country wise Channel | Dashboard 1 | Dashboard 2 | **Dashboard 3** | Stor

Story 1

Channel Details | List of Channels with number of | Language and Country wise | Country wise primary language,

Rank wise Channel

Name	
T-Series	1
Cocomelon	2
Sony Entertain..	3
MrBeast	4
PewDiePie	5
Kids Diana Sho..	6
Like Nastya	7
Vlad and Niki	8
WWE	9
Zee Music Com..	10
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ChuChu TV	22
Colors TV	23
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T-Series Bhakt..	26
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Wave Music	28
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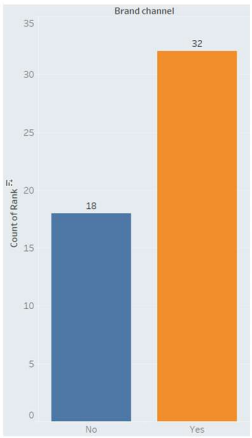
Sony Music Ind..	30
El Reino Infantil	31
Aaj Tak	32

No of channels with Brand



Channel Brand

Name	Brand channel: No	Yes
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BangtanTV	No	
Billie Eilish	No	
BillionSurpriseTo..		Yes
Blackpink		Yes
Canal KondZilla		Yes
ChuChu TV		Yes
Cocomelon		Yes
Colors TV		Yes
Dude Perfect	No	
Ed Sheeran	No	
El Reino Infantil		Yes
Eminem	No	
Felipe Neto	No	
Fernanfloo	No	
Get Movies		Yes
Goldmines		Yes
Hybe Labels		Yes
Infobells		Yes
JuegaGerman	No	
Justin Bieber	No	
Kids Diana Show		Yes
Like Nastya	No	

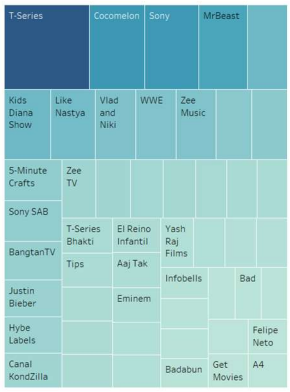
of channels with Brand | Channel Brand | Channel name with Subscribers | No of Channels of language | Country wise subscribers | Language wise subscribers | Country wise Channel | Dashboard 1 | Dashboard 2 | Dashboard 3 | **Story 1**

Story 1

Channel Details | List of Channels with number of | Language and Country wise | Country wise primary language,

Subscribers (millions)
44.6 — 238.0

Channel name with Subscribers



No of Channels of language

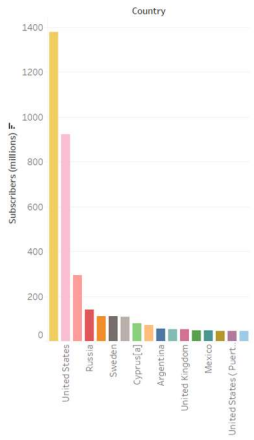
Primary language
- Bhojpuri
- English
- English[10][11][12]
- Hindi
- Hindi[7][8]
- Hindi[9]
- Hindi[13][14]
- Hindi[16]
- Korean
- Portuguese
- Russian
- Spanish

of channels with Brand | Channel Brand | Channel name with Subscribers | No of Channels of language | Country wise subscribers | Language wise subscribers | Country wise Channel | Dashboard 1 | Dashboard 2 | Dashboard 3 | **Story 1**

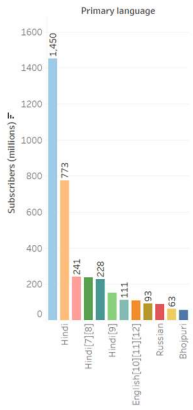
Story 1

Channel Details | List of Channels with number of | Language and Country wise | Country wise primary language,

Country wise subscribers



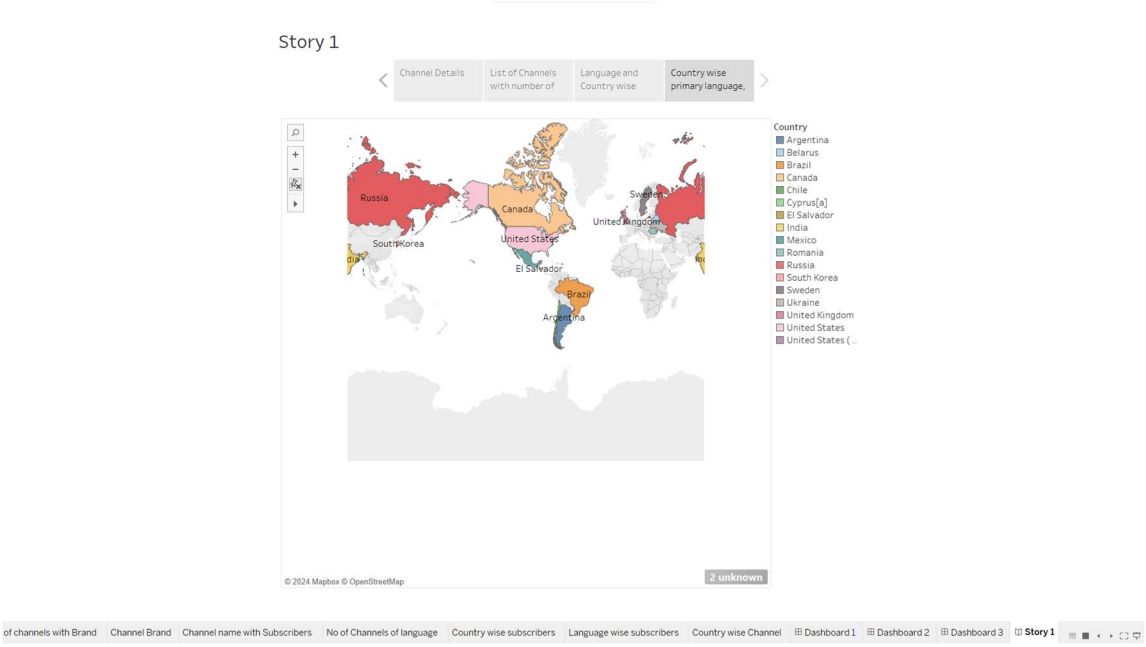
Language wise subscribers



Country
- Argentina
- Belarus
- Brazil
- Canada
- Chile
- Cyprus[a]
- El Salvador
- India
- Mexico
- Romania
- Russia
- South Korea
- Sweden
- Ukraine
- United Kingdom
- United States
- United States (...

Primary language
- Bhojpuri
- English
- English[10][11][...
- Hindi
- Hindi[7][8]
- Hindi[9]
- Hindi[13][14]
- Hindi[16]
- Korean
- Portuguese
- Russian
- Spanish

of channels with Brand | Channel Brand | Channel name with Subscribers | No of Channels of language | Country wise subscribers | Language wise subscribers | Country wise Channel | Dashboard 1 | Dashboard 2 | Dashboard 3 | **Story 1**



10. ADVANTAGES & DISADVANTAGES

Advantages

- In-depth insights for content creators.
- Valuable data for marketers.
- Enhanced understanding of audience preferences.

Disadvantages

- Dependency on accurate sentiment analysis.
- Ethical considerations regarding data privacy.

11. CONCLUSION

In the grand finale, Subscribers Galore stands as a beacon, illuminating the intricacies of successful YouTube channels. Through advanced analytics, we empower creators with the knowledge to build thriving communities.

12. FUTURE SCOPE

Our journey doesn't conclude here. The future beckons with opportunities to expand our analysis—exploring emerging trends, collaboration strategies, and platform-specific nuances. Continuous updates will ensure our project remains a guiding star in the dynamic world of online content creation.