OTT Platform Analysis Tool

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1. INTRODUCTION

1.1 Overview

Over 62 million people by 2020 have an OTT subscription. Youtube is one of the most watched or visited websites. Terabytes of data are streamed each year through OTT platforms. This large numbers will draw huge attention among people about the significance of OTT platforms. Majority of people love OTT platforms because it's “ any time you can watch”. One just needs a stable internet connection and with advancement of 5g there is no doubt that business of OTT platforms will grow henceforth. But recently all OTT platforms are slowly becoming production companies also. So it is important to understand the current market situations. New OTT platforms also need to know the stability of these platforms so they can take efficient business decisions for the future. The major problems with OTT platforms is that since they stream content a content may gain huge success later. Same way some content produced in the past needed to be added in the platforms to make revenue. Shows like F.R.I.E.N.D.S are still trending. On the other hand Big Bang Theory gained more viewers in later seasons. The best way to deal with it is using an analysis tool. Analysis tools help us to understand trends in data. For new shows, effective advertisement can help to reduce such a problem. Each shows much reach to people with proper language. OTT platforms should be able to use these tools to understand modern trends in the genre. So a dashboard containing all details will help OTT platforms to take effective decision.

1.2 Purpose

In this project we will be developing a dashboard which will help ott platforms to understand “What is being streamed” and “Why is being streamed”. The largely collected data will help analysts to create reports and make important decisions. So in his project the main idea or work is related to creating a meaningful visualization of the data so that it can be used by other team members. The

documentation provided with the dashboard will help one to go through it and make meaningful decisions in their business. The dashboard is made carefully with a concern about existing ott platforms as well as newcomers. One can also get the market stability of the current ott platforms because absence of perfect competition can result in monopoly.

2. LITERATURE REVIEW

2.1 Existing Problem

After its massive impact on market and culture, OTT became the centre of debate in various aspects, such as its impact on traditional services, threat or opportunity to investors in the industry, and regulatory framework. Copyright owners of contents fear that OTT increases chances of piracy (Crandall, 2014). Ever since content could be stored in digital formats, illegal downloading of movies and TV shows has a significant impact on the market. It is projected to cost the TV and film industry US$ 51.6 billion globally by 2022.The market power of digital media platforms has had massive growth because the OTT platforms have been very lightly regulated in terms of public interest responsibilities and anti-monopolistic behaviour, unlike the legacy media and telecommunications firms. Content with extreme violence, nudity and strong language find their home in OTT platforms because the OTT sector in India is less regulated than its offline counterparts like film and television (Zboralska and Davis, 2017).

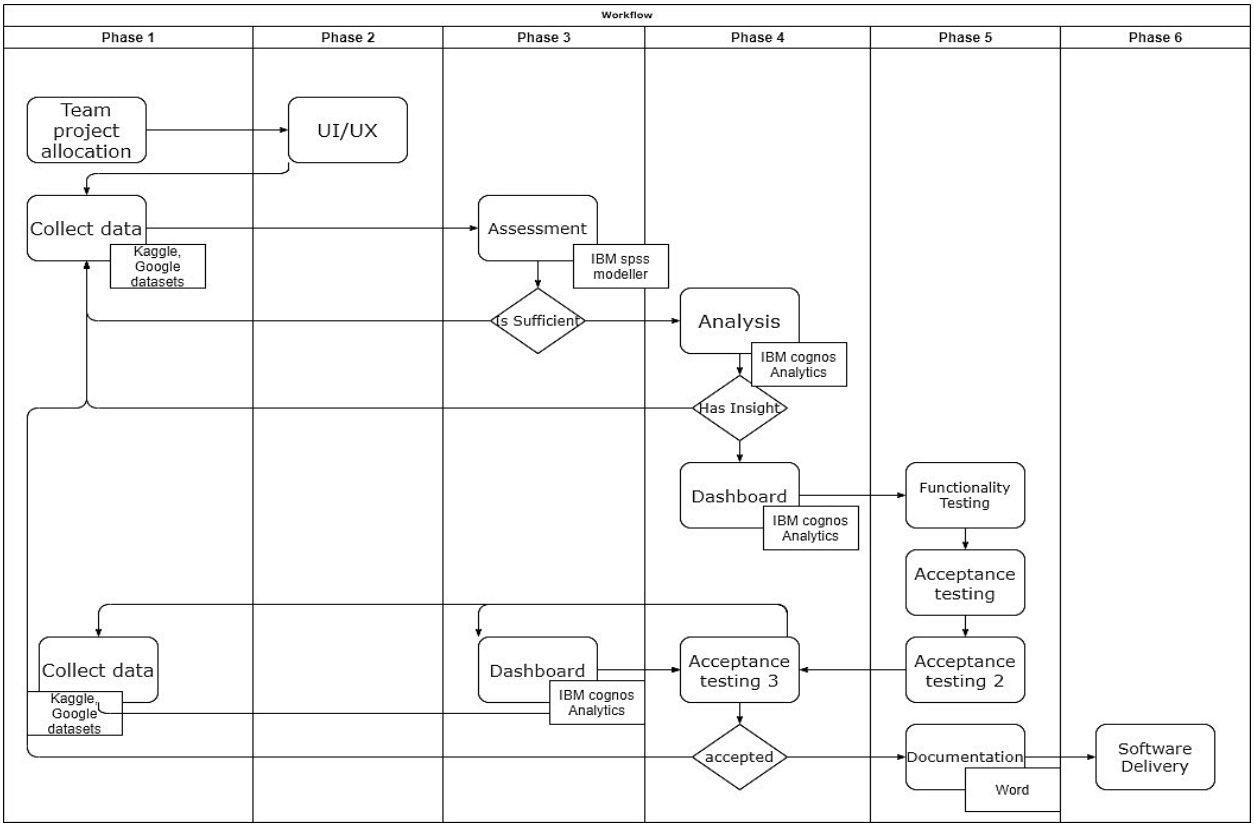
Huge data generated from these OTT platforms are hard to relate and no inference can be drawn from them easily. Moreover, the recent change in business models from streaming giant to production giant may need more attention towards quality of show than quantity of shows. No show's success can be determined using the pot but one can gain an edge by understating the current market situations. Similarly, Since ott platforms have to cover a large market therefore proper advertisement is necessary. Reaching out to people is important for ott platforms. The revenue generated from different ott platforms is from different business models. Youtube generates a lot from ads, while Netflix generates from subscriptions. While the Netflix business model is much more stable than youtube, it has to struggle for best content while youtube has to struggle with runtime and quantity of content.

2.2 Proposed Solution

The proposed dashboard is divided into several selections which gives us an insight about each parameter which independently help us to determine the growth of ott platforms. The best way to deal with such a problem is by using a global data analysis tool which combines all ott platform data to understand the trends of ott platforms and compare with its own business model and execute a change for better response. Youtube can generate a huge amount of personalised data whereas Netflix, amazon prime can generate content type data. Using YouTube's personalised data one can reach out to people more efficiently and with Netflix they can keep on focusing on better content creation and sorting. The global trend is an average trend that flows any sudden change in it can create an attention amazon ott platforms as they could be a shift in market which they have to adapt to survive.

3. THEORETICAL ANALYSIS

3.1 Block Diagram



The block diagram consists of collecting the data and making a better ui design for the dashboard. Each step has feedback which determines the quality of the dashboard. Each data is processed separately based on the dashboard and can be easily changed with python code.

3.2 Software designing

The Software requirements Include software s provided by IBM and some basic knowledge about programming.

IBM Cloud: IBM Cloud is a set of cloud computing services for business offered by the information technology company IBM. It combines platform as a service with infrastructure as a service. The platform scales and supports both small development teams and organizations, and large enterprise businesses.

IBM Watson Studio: Watson Studio, formerly Data Science Experience or DSX, is IBM's software platform for data science. The platform consists of a workspace that includes multiple collaboration and open-source tools for use in data science.[1] In Watson Studio, a data scientist can create a project with a group of collaborators, all having access to various analytics models and using various languages (R/Python/Scala). Watson Studio brings together staple open source tools including RStudio, Spark and Python in an integrated environment, along with additional tools such as a managed Spark service and data shaping facilities, in a secure and governed environment.[2] Watson Studio provides access to data sets that are available through Watson Data Platform, on-premises or on the cloud.

IBM Cognos Analytics: IBM Cognos Business Intelligence is a web-based integrated business intelligence suite by IBM. It provides a toolset for reporting, analytics, score carding, and monitoring of events and metrics. The software consists of several components designed to meet the different information requirements in a company. IBM Cognos has components such as IBM Cognos Framework Manager, IBM Cognos Cube Designer, IBM Cognos Transformer.

Python: Python is an interpreted high-level general-purpose programming language. Its design philosophy emphasizes code readability with its use of significant indentation. Its language constructs as well as its object-oriented approach aim to help programmers write clear, logical code for small and large-scale projects.[30] Python is dynamically-typed and garbage-collected. It supports multiple programming paradigms, including structured (particularly, procedural), object-oriented and functional programming. It is often described as a "batteries included" language due to its comprehensive standard library

4. EXPERIMENTAL INVESTIGATIONS

As starting to analyse the data the conditions of dependency are disparate. The overall system can work on analysis over language, country, genre and reviews. This parameters can help to understand market intentions for ott platforms. On the other hand this things like plot and director and famous actors adds up to analysis of quality content but they are not the parameters we should use for analysis. This can make the model biased towards famous movies or to good directors and will not help ott platforms to rank new content. The basic idea is that let the users analyse the content whereas they make sure of effective advertisement to reach out content to people. The reviews can help in understanding the content quality. On the other hand, personalised ads should not be used. The trend change in genre helps us to understand that people like sitcoms in the 90s where animation and horror are trending in the 20s. As technology trends change people choices change and personalised ads may make the business biased.

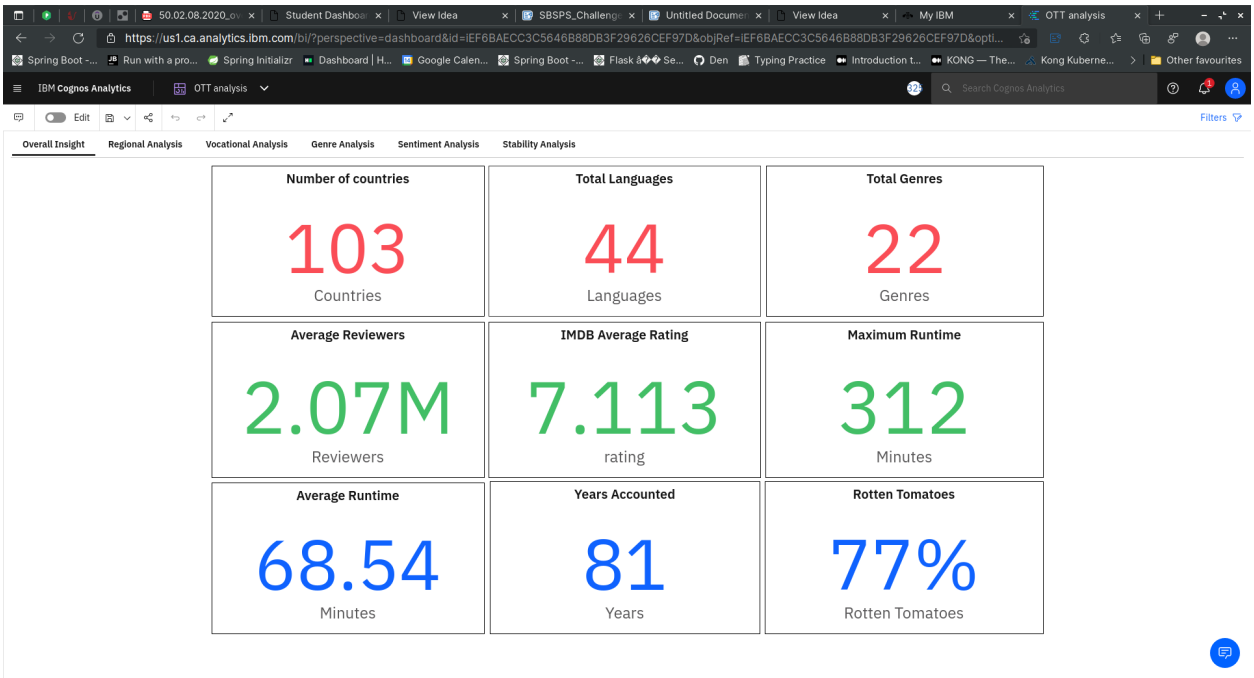
5. FLOWCHART

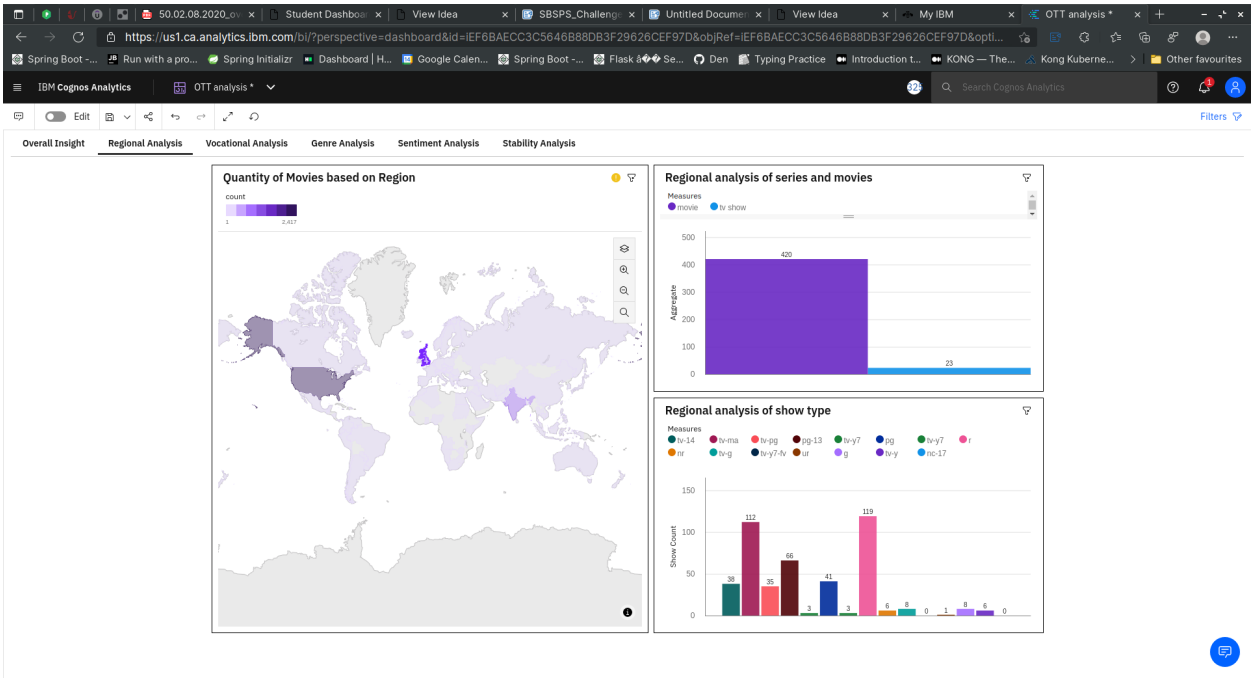
OTT platforms start analysing the market using a dashboard using stable parameters like language, genre and country for understanding users and their content type . They use it to make targeted ads based on location, language and genre. Users view the ads and give ott platforms to potential voters or reviewers which is directly proportional to the number of content viewers. The only optimization that is needed here is maximization of viewers through directed ads. As the users view the show reviews can be generated and can be analysed which help ott platforms in understanding the content quality and they can finally infer on current genre and market situation. They can also control ads and further need for advertisement. Shows that have good reviews need to have more ads

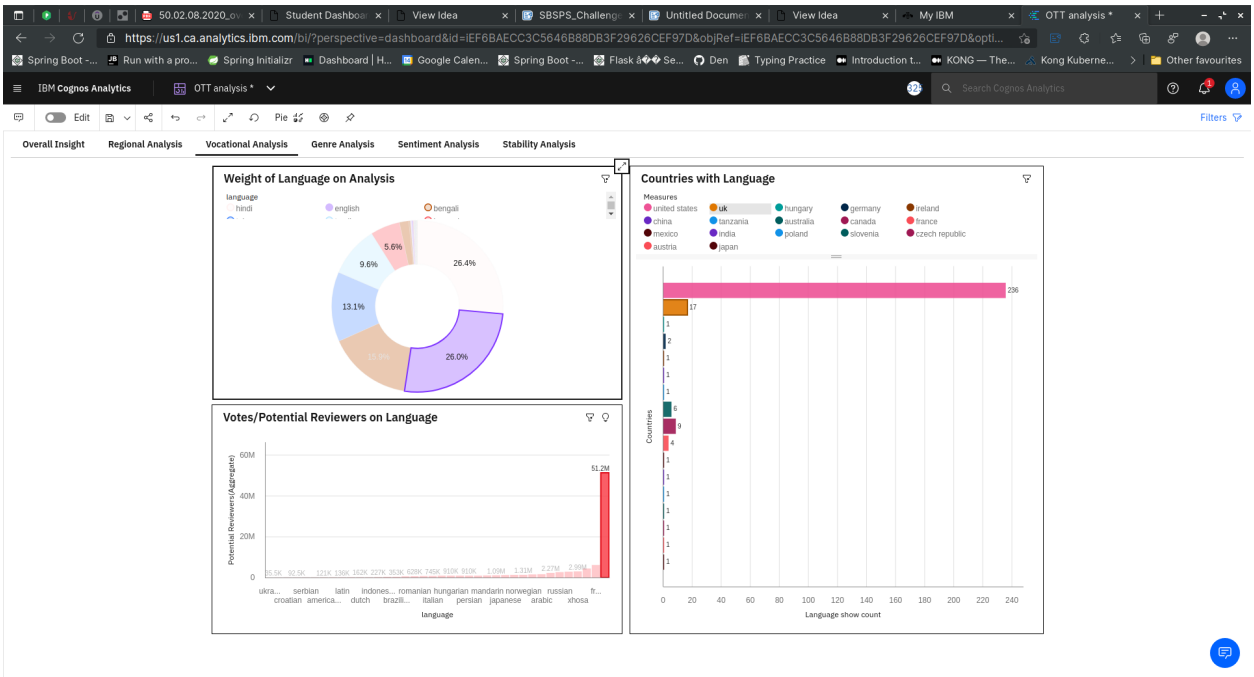
and sponsors to increase people watching them. On the other hand, bad shows can be kept at least and spend less money on ads. This also helps ott platform for proper screening of upcoming shows.

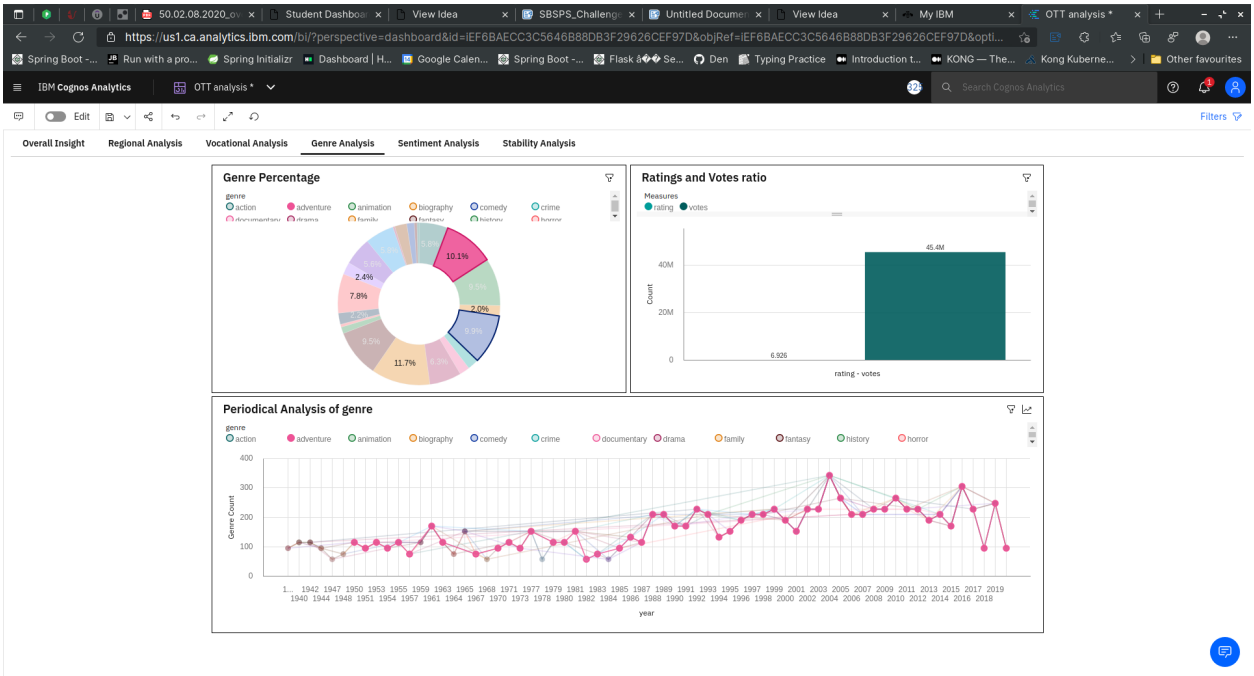
6. **RESULT**

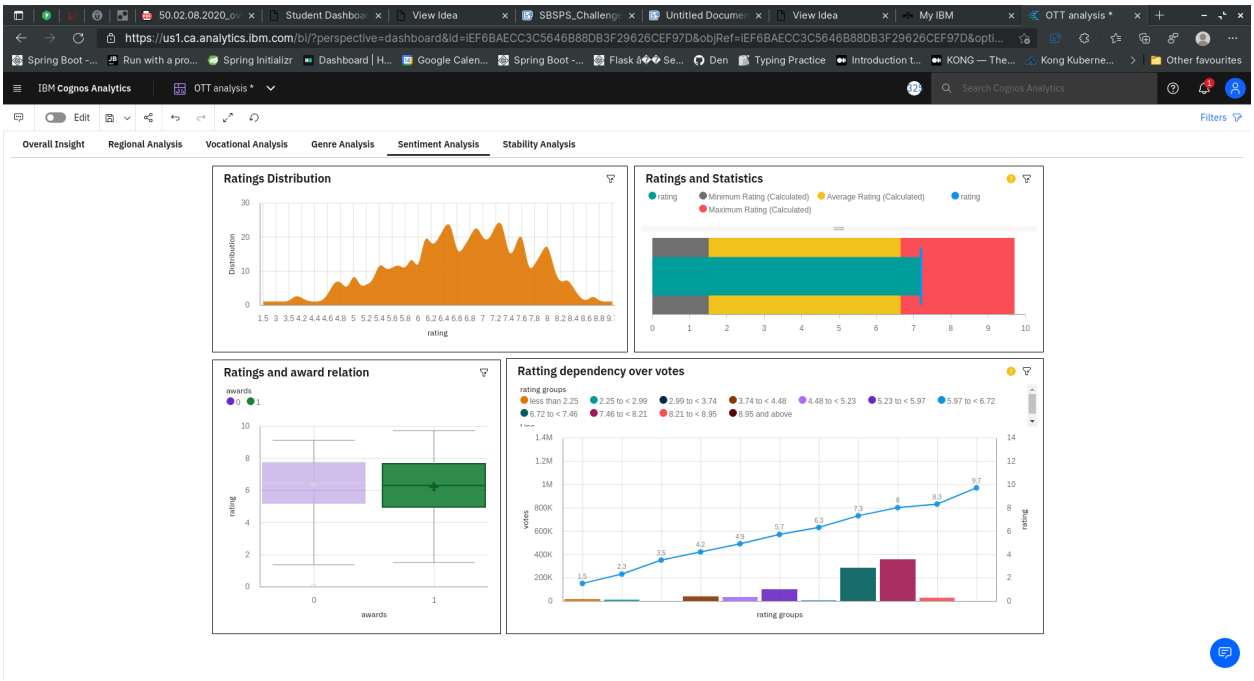
Since it is only a dashboard we can show some screenshots.






IBM Cognos Analytics
OTT analysis *
Overall Insight
Regional Analysis
Vocational Analysis
Genre Analysis
Sentiment Analysis
Stability Analysis
Weight of Language on Analysis
Countries with Language
Votes/Potential Reviewers on Language
Language show count
Countries


IBM Cognos Analytics
OTT analysis *
Overall Insight
Regional Analysis
Vocational Analysis
Genre Analysis
Sentiment Analysis
Stability Analysis
Genre Percentage
Ratings and Votes ratio
Periodical Analysis of genre
rating - votes
year
Genre Count


IBM Cognos Analytics
OTT analysis *
Overall Insight
Regional Analysis
Vocational Analysis
Genre Analysis
Sentiment Analysis
Stability Analysis
Ratings Distribution
Distribution
rating
Ratings and Statistics
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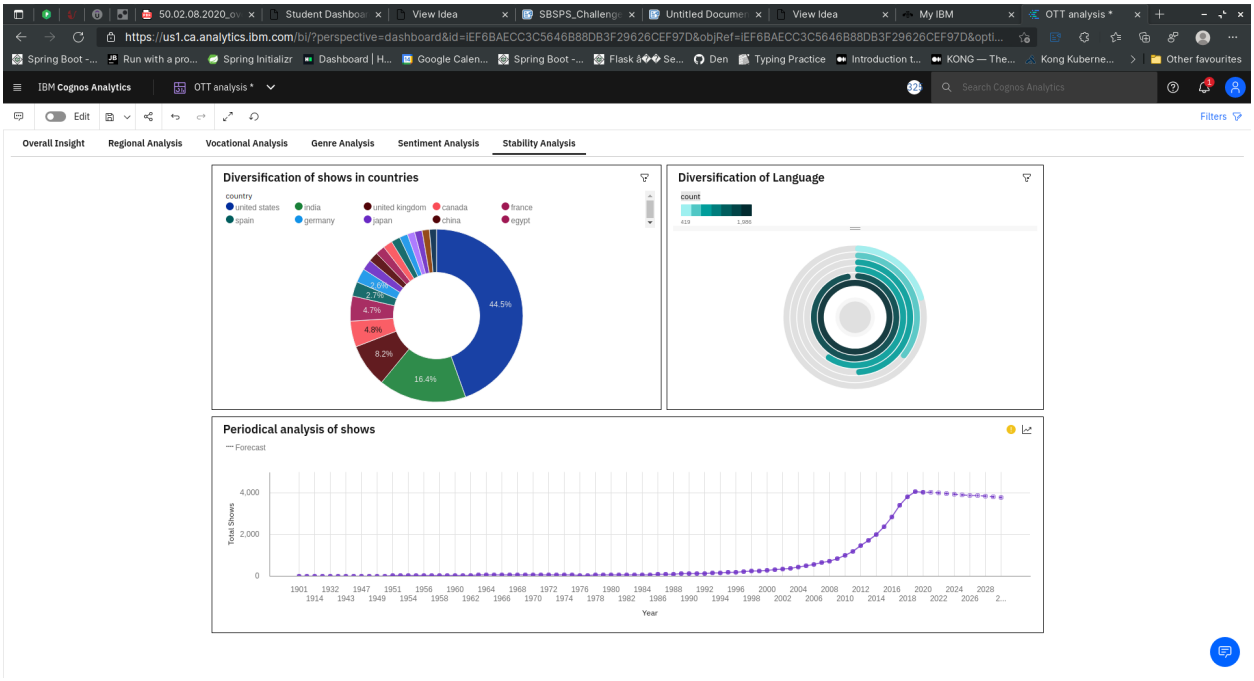
Minimum Rating (Calculated)
Average Rating (Calculated)
Maximum Rating (Calculated)
Ratings and award relation
awards
rating
Ratting dependency over votes
rating groups
votes


IBM Cognos Analytics
OTT analysis *
Overall Insight
Regional Analysis
Vocational Analysis
Genre Analysis
Sentiment Analysis
Stability Analysis
Diversification of shows in countries
country
united states
india
united kingdom
canada
france
spain
germany
japan
china
egypt
44.5%
16.4%
8.2%
4.8%
4.7%
2.7%
2.6%
Diversification of Language
count
Periodical analysis of shows
Forecast
Total Shows
Year

7. ADVANTAGES AND DISADVANTAGES

7.1 Advantages

1. Easy understanding of the numerical data.
2. Make decision with support
3. Stream data for active analysis
4. Global data for overall trend
5. Effective advertisement

7.2 Disadvantages

1. Analysis of content is not available
2. Data attributes were different
3. No proper analysis on unrelated data
4. Biased towards some language, countries or genre

8. APPLICATIONS

- Analysis of data from ott platforms
- Insight to show makers about their show
- Insight to new business and entrepreneurs
- Country wise content analysis
- Government regulation over content

9. CONCLUSION

So the Dashboard helps us to understand the market situation of the ott platforms and can help us to make effective decisions about shows and new business ventures. Sine it is integrated in IBM cloud it can be scaled and can be integrated by new business.

10. FUTURE SCOPE

More content in regional languages

Over the last few years, the online media industry has understood that India is not a single market but a combination of multiple markets, each with its unique characteristics. The subset of regional language speaking internet users is growing faster than the Hindi and English-speaking user base. Localized content shows uptake in terms of engagement, as viewers always prefer to consume content in their language. So, primary streaming services like Amazon Prime and Netflix are investing more on producing content besides Hindi and English, in eight major Indian languages. Hoichoi, an all Bengali content streaming platform, saw an 85% growth in traffic from 76 thousand total unique visitors in March 2018 to 140K in March 2019. The focus of VoD platforms has shifted from urban youths to the mass market. So, the inclusion of regional content has paved the way for mass-market adoption as opposed to the initial niche offering. The demand for local language content development will cause new platforms and content creators that will work towards creating narratives that cater to each markets.

New business models

Today, most OTT platforms promote them aggressively through a strategy where they allow initial free usage to enable the customer to experience platforms and demand an incremental premium fee at a later stage after consumer behaviour is in favour. So, the business model that is prevalently employed by OTT providers around the globe is B2C. However, some of the prominent streaming industry stakeholders believe that pure B2C models will not work in India and consider B2B2C as the right way to move forward (KPMG, 2019). Over-the-top (OTT) video services in India. 496 A syndicated content offering on the applications likes of Jio Apps, Airtel Wynk, has become the norm. To boost revenues, there has been a significant increase in partnerships between telcos and OTT players

in India and globally to provide exclusive video content for free to users of particular telco subscriber. For example, Vodafone has been offering package deals which include access to its entertainment platform, Vodafone Play, as well as a free Amazon Prime subscription. Airtel and Netflix formed a strategic partnership where select broadband subscribers received free subscription of Netflix for three months. DTH operator Tata Sky partnered with Amazon to launch the platform ‘Tata Sky Binge’, which showcases digital content aggregated from multiple apps. So, in the future, the OTT space will observe smaller or newer platforms acquiring customers through the existing large customer base of Telco or other services.

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12. APPENDIX

https://github.com/maxkaustav/IBM_Hack_Challenge_21