

REPORT ON OTT PLATFORM ANALYSIS

INTRODUCTION

Overview

OTT(Over-The-Top) media platform is a digital media service delivered directly to audiences over the Internet. The companies that historically serve as a controller or distributor of such content, (cable, radio, and satellite television channels) are bypassed by OTT today. OTT also refers to a new generation of modern television networks that, like conventional satellite or cable TV providers, offer live streams of linear specialty channels over the public Internet rather than a closed, private network of proprietary equipment like set-top boxes.

The COVID-19 pandemic has wreaked havoc on the world over the past year and has forced the shutdown of many theatres across the country. This fact, coupled with consecutive lockdowns, has encouraged people to stay home and has accelerated the increase in OTT platform subscriptions. In 2019, the OTT market was valued at 85.16 Billion USD and it is expected to reach 194.20 Billion USD by 2025. Hence, we decided to analyze different OTT platforms and provide useful information for people not able to decide which platform fits them best.

This report presents an analysis of three major OTT platforms — Netflix, Amazon Prime, and Disney. The datasets have been chosen to investigate the distribution of movie genres, age rating, IMDb ratings, country of origin, language and associated runtime and the results of this analysis comparing every platform are presented.

Purpose

In recent times, OTT platforms have become to go-to place for customized instant entertainment at home. While these platforms bring with them several advantages, they also present a novel issue: the difficulty in choosing which OTT platform to subscribe to and having access to accurate information regarding the kind of content and audience each platform provides and caters to. Netflix, Amazon Prime, and Disney+ are some of the many OTT services that are well-known to the public, and several localized platforms such as Voot India are on the rise as well.

These major OTT platforms often try to come up with new ways to stand out among competitors. The

create and produce their own original content, focus their content curation on certain genres or languages or cater to a certain section of audience. As OTT platforms generate more and more niche content, it is evident that more customers are being lost in deciding which platform would be suitable for their tastes and expectations. Today, most of the available recommendation systems are focused on suggesting suitable content but do not provide the information on which platforms host the kind of content the user is looking for. To solve this dilemma, our analysis aims to present a guideline for choosing the right OTT platform that fits one's personal preferences and tastes.

LITERATURE SURVEY

Existing Problem:

The unavailability of information and recommendation systems for user content based on individual OTT platforms. Current information and analyses are based on types of content that will be preferable to the tastes of user but there is no way to determine which platform is best suited to host content tailored to user's needs. In India in particular, the data available does not provide context with relation to regional content, languages etc.

Existing approaches or method to solve this problem:

Some analyses have been performed on OTT platforms with respect to their content, user experience, preference and impact.

'Digital Media: Rise of on-demand Content' a report by Deloitte:

It is noted that the rise of internet-enabled digital devices capable of supporting digitized content has led to an increase in the use of digital content globally. In India, this trend is observed across diverse platforms such as audio, visual, news, music etc. It mentions that an Indian youth, on an average spends 14% of their time and nearly 17% of their monthly expenditures on entertainment. An internet content consumer in India consumes an average of 6.2 hours of content on an everyday basis out of which 21% of the time is spent on audio-visual entertainment. A shift in consumer attitude with regard to a favoritism for OTT content and easy access to vast libraries at any time and place over content ownership is notable. 'Understanding adoption factors of over-the-top video services among millennial consumers' a study by Dr. Sabyasachi Dasgupta and Dr. Priya Grover - takes note that Indian audiences have swayed towards

OTT content and are willing to spend for easy and unlimited access to content without a place and time limitation. It again notes the inverse impact of pricing strategy of OTT on its popularity. Data consumption is another attribute that makes it a tough choice for Indian viewers and so are habits and preferences for TV as a medium.

New media as a change agent of Indian television and cinema' a study by Dr.Paramveer Singh:

It finds that Netflix, Hotstar and Jio are most popular among Indian youth. The youth is skewed towards free trials available on these platforms, are nocturnal viewers and prefer web series format over films. The respondents affirm that over-the-top applications are changing media consumption patterns in India. The shift can be attributed to convenience of service, personalized experience and availability of global content etc. The study finds the future of OTT in India to be promising due to increasing smartphone penetration, economic convergence of media companies at national or international level, and quality of reception of digital content. Also instrumental is the competitive internet data plans offered by telecom service providers in India.

The burgeoning digital media consumption: a challenge for traditional television and advertising industries - an analysis' a study by Ritu Bhavsar:

It mentions that digital media has become an indispensable part of everyday lives and is a prominent medium used for gathering and disseminating information, socialization, entertainment and marketing. An ever-increasing consumption of content via digital media effects a change in the consumer preferences and attitudes and this transformations trend can be associated with better internet connectivity, advanced digital devices, competitive data prices in India and the accessible, on-the-go nature of internet media. The reports of PwC India - has similar observations that slated a huge opportunity for OTT platforms in India. The report however states that pricing of content can be a hindrance to the growth and suggests a revised policy to foster the OTT market in India. ¹⁵ It can therefore be concluded from the literature review that the popularity of OTT is on the rise owing to increasing smartphone penetration, competitive internet data plans offered by Indian telecom service providers, the abundance and quality of content on these platforms and the global media industry dynamics that have a sizable impact on the economic and policy matters of OTT service providers. To add to this is the personalized nature of smartphone media and the availability of content from around the globe. Also instrumental is the preference of youth for free and unlimited access to content as opposed to complete content ownership in a limited manner. Thus the consumption of the OTT platforms are thus in huge rise especially among the youth.

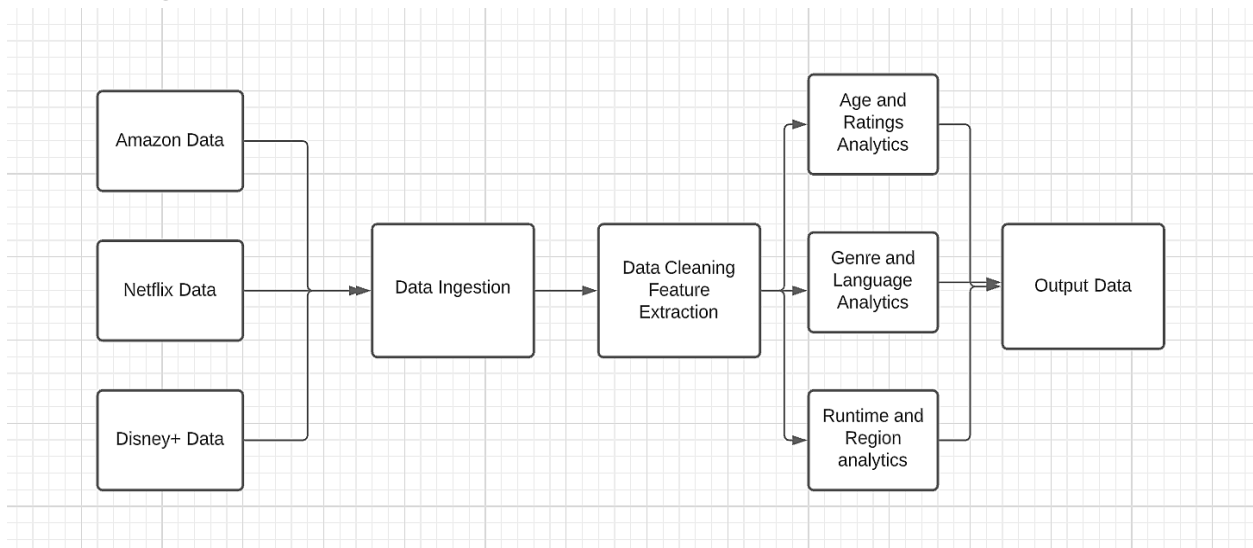
Proposed solution

The solution consists of mainly two steps: pre-processing and analysis. There are difficulties like disambiguating movies with the same titles and combining different age rating systems that had to be overcome to begin the analysis.

After pre-processing the source datasets, we explore how different platforms can focus on content targeted towards specific audiences differing in age and genre preferences. The statistical model of the given data will be shown that helps the OTT platforms to analyse the interests of their subscribers.

THEORITICAL ANALYSIS

Block diagram

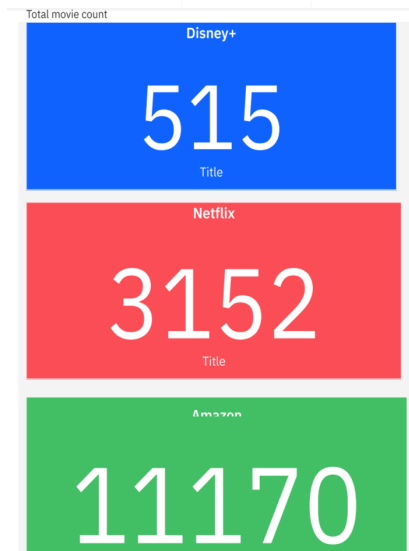


SOFTWARE REQUIREMENTS:

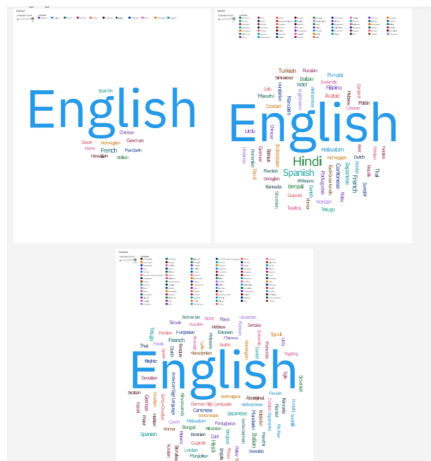
IBM Cognos Analytics

RESULT:

TOTAL MOVIE COUNT



LANGUAGE CLOUD:



INTERPRETATION

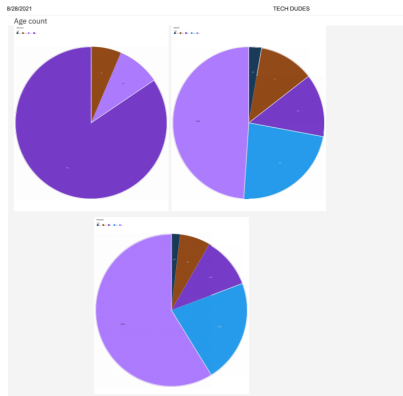
These word clouds show the number of films in different languages in Disney+, Netflix, and Amazon Prime respectively.

It can be seen that all the three platforms have a maximum no. of films in English compared to other languages. Amazon provides the highest number of different language films compared to Disney+ which has the lowest. It can also be observed that Amazon Prime provides sign language films in English and

german.

In conclusion, different Dialect viewers can prefer Amazon prime movies whereas, Foreign language movie viewers can prefer Netflix and Disney+ for more content.

AGE COUNT:



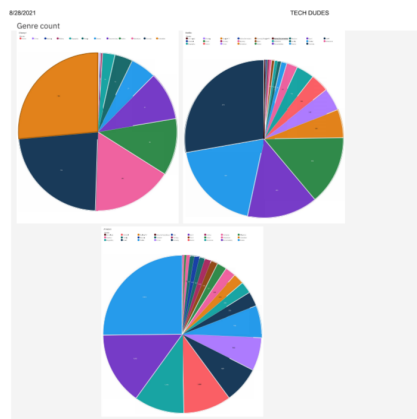
INTERPRETATION:

These pie charts show the number of films based on age in Disney+, Netflix, and Amazon Prime respectively.

It can be seen that Amazon Prime provides the highest number of films suitable for all ages(As 3+ is the age that most children begin to remember things such as film and TV), followed by Netflix. We can see, 7+ movies are largely provided by Disney+, suggesting as this is the age that most children begin to remember contents, emotions in a film. 16+ and 18+ films are largely found in Netflix followed by Amazon Prime, as these films depict deeper and sensitive contents.

In conclusion, Amazon Prime is suggested to watch by toddlers to adults, whereas Disney+ is suggested to watch by school-aged children in specific to content choice. Netflix is suggested to watch by Adolescents and Adults in specific to content choice.

GENRE COUNT:



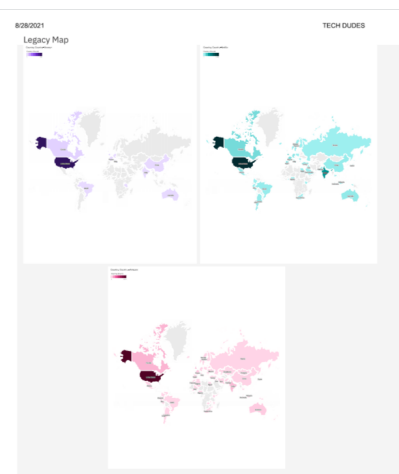
INTERPRETATION:

These pie charts show the number of films based on genres in Disney+, Netflix, and Amazon Prime respectively.

It can be seen that Amazon Prime and Netflix provide a larger no. variety of genre films in contrast to Disney+. It can be seen that documentary films are majorly provided by Netflix followed by Amazon Prime. Disney+ primarily focuses on common genres liked by kids to adults such as Animation, Comedy, Action, Adventure in contrast to Netflix and Amazon Prime, which focus on fan-based genres such as Romance, Crime, Horror.

In conclusion, For drama, viewers are suggested to watch Amazon Prime. For comedy, viewers are suggested to watch Netflix. For animation, viewers are suggested to watch Disney+.

LEGACY MAP:



INTERPRETATION:

The following legacy map shows the number of films produced by each country in each of the OTT platforms.

DISNEY: +It can be observed that the overwhelming majority of films in this platform are produced by USA. A very small percentage of the films are produced by Canada followed by Australia, China and VBrazil.

NETFLIX: It can be observed that a majority of film are produced in the USA. But a huge amount of it is also produced in India, followed by China, Australia and Brazil.

AMAZON: It can be observed again that a majority of films are produced in the USA. It is followed by Canada and then by countries like India, China and Australia.

CONCLUSION: It can be concluded that most of the content produced across all the OTT platforms are produced in the USA. In Disney+, Almost all of the content is from US whereas in Amazon and Netflix a good percentage of the content is from India as well.

Top 10 movies:

Disney+			Netflix		
Rank	Title	Genre	Rank	Title	Genre
0.1	Star Wars: The Force Awakens	Action	0.1	House of Cards	Drama
0.2	Star Wars: The Last Jedi	Action	0.2	Stranger Things	Horror
0.3	Star Wars: The Rise of Skywalker	Action	0.3	The Crown: The End of an Era	Documentary
0.4	Star Wars: The Force of Nature	Action	0.4	The Crown: The End of an Era	Documentary
0.5	Star Wars: The Force of Nature	Action	0.5	The Crown: The End of an Era	Documentary
0.6	Star Wars: The Force of Nature	Action	0.6	The Crown: The End of an Era	Documentary
0.7	Star Wars: The Force of Nature	Action	0.7	The Crown: The End of an Era	Documentary
0.8	Star Wars: The Force of Nature	Action	0.8	The Crown: The End of an Era	Documentary
0.9	Star Wars: The Force of Nature	Action	0.9	The Crown: The End of an Era	Documentary
1.0	Star Wars: The Force of Nature	Action	1.0	The Crown: The End of an Era	Documentary

Amazon		
Rank	Title	Genre
0.1	Star Wars: The Force Awakens	Action
0.2	Star Wars: The Last Jedi	Action
0.3	Star Wars: The Rise of Skywalker	Action
0.4	Star Wars: The Force of Nature	Action
0.5	Star Wars: The Force of Nature	Action
0.6	Star Wars: The Force of Nature	Action
0.7	Star Wars: The Force of Nature	Action
0.8	Star Wars: The Force of Nature	Action
0.9	Star Wars: The Force of Nature	Action
1.0	Star Wars: The Force of Nature	Action

Top 5 Disney		Top 5 Movies French, German, Greek, Italian - Disney	
Top 5 Movies (English) - Disney		Top 5 Movies (French, German, Greek, Italian) - Disney	
Rank	Title	Rank	Title
1	Star Wars: The Empire Strikes Back	1	Star Wars
2	Star Wars: A New Hope	2	Star Wars
3	Star Wars: The Force Awakens	3	Star Wars
4	Star Wars: The Last Jedi	4	Star Wars
5	Star Wars: The Rise of Skywalker	5	Star Wars
6	Star Wars: The Clone Wars	6	Star Wars
7	Star Wars: The Mandalorian	7	Star Wars
8	Star Wars: The Book of Boba Fett	8	Star Wars
9	Star Wars: The High Republic	9	Star Wars
10	Star Wars: The Planets	10	Star Wars

Top 5 netflix:

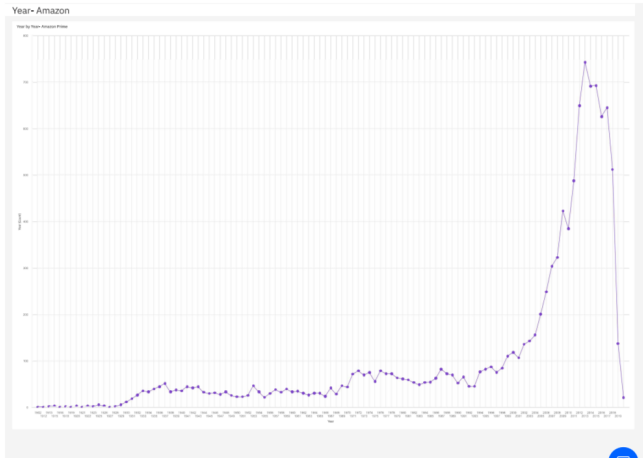
Top 5 Netflix		Tech Duets	
Top 5 Movies (English) - Netflix		Tech Duets (English)	
Rank	Title	Rank	Title
1	Star Wars: The Empire Strikes Back	1	Star Wars
2	Star Wars: A New Hope	2	Star Wars
3	Star Wars: The Force Awakens	3	Star Wars
4	Star Wars: The Last Jedi	4	Star Wars
5	Star Wars: The Rise of Skywalker	5	Star Wars
6	Star Wars: The Clone Wars	6	Star Wars
7	Star Wars: The Mandalorian	7	Star Wars
8	Star Wars: The Book of Boba Fett	8	Star Wars
9	Star Wars: The High Republic	9	Star Wars
10	Star Wars: The Planets	10	Star Wars

TOP 5 amazon

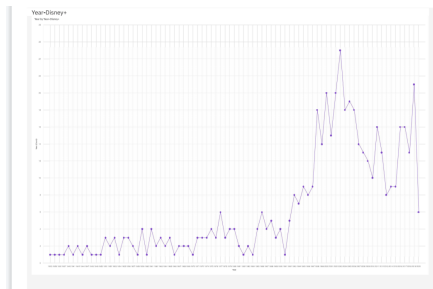
Top 5 Amazon		Tech Duets	
Top 5 Movies (English) - Amazon		Tech Duets (English)	
Rank	Title	Rank	Title
1	Star Wars: The Empire Strikes Back	1	Star Wars
2	Star Wars: A New Hope	2	Star Wars
3	Star Wars: The Force Awakens	3	Star Wars
4	Star Wars: The Last Jedi	4	Star Wars
5	Star Wars: The Rise of Skywalker	5	Star Wars
6	Star Wars: The Clone Wars	6	Star Wars
7	Star Wars: The Mandalorian	7	Star Wars
8	Star Wars: The Book of Boba Fett	8	Star Wars
9	Star Wars: The High Republic	9	Star Wars
10	Star Wars: The Planets	10	Star Wars

YEAR BY YEAR

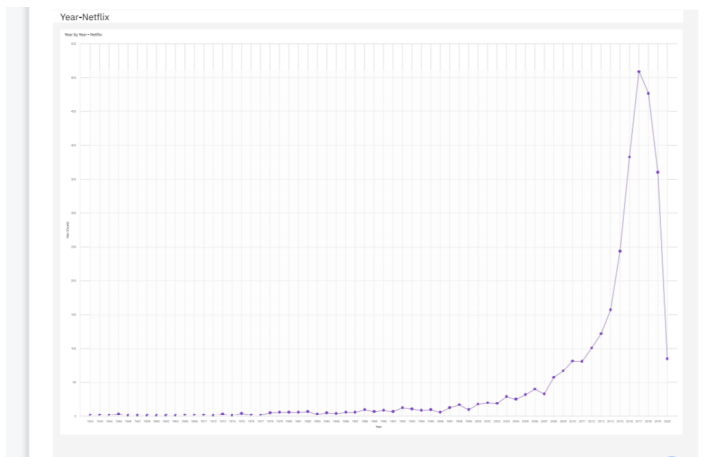
AMAZON



DISNEY+



NETFLIX



INTERPRETATION

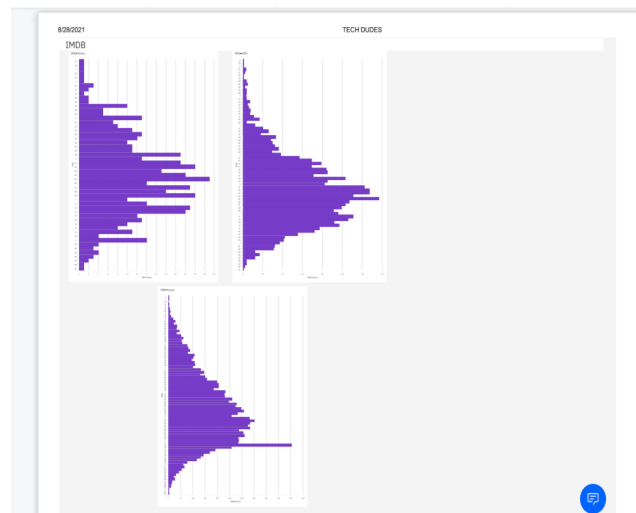
The line graph for Year Vs Year for amazon prime shows that 743 movies has been released in the year 2013. On an average 104 movies get released on amazon prime every year. Due to the outbreak of global pandemic in the year 2020, only 21 movies got released on amazon prime. In the year 1999 111 movies were released and that marks the beginning of the release of more number of movies on amazon prime, after that the graph seems to be raising.

The line graph for Year Vs Year for Disney+ shows that 25 movies has been released in the year 2003. On an average 6 movies get released on Disney+ every year. In the year 2019, 21 movies were released.

The line graph for Year Vs Year for Netflix shows that 509 movies has been released in the year 2017. On an average 50 movies get released on Netflix every year. During the outbreak of global pandemic in the year 2020, 85 movies got released on Netflix. In the year 2019, 62 movies were released.

Amazon prime, no doubt a popular OTT platform all over the world seems to release more number of movies compared to Netflix and Disney+ hotstar. Even during the outbreak of the pandemic Netflix managed to release 85 movies which is high compared to Amazon prime and Disney+ hotstar.

IMDb:



INTERPRETATION:

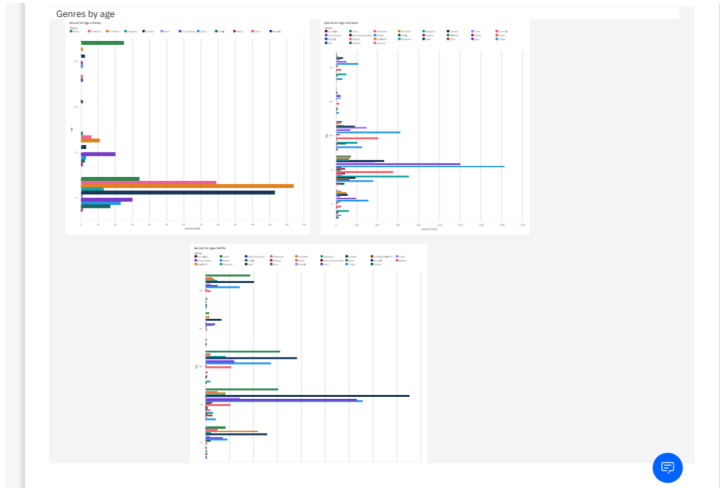
DISNEY+: It can be observed that the a large number of movies fall between theratings range of 6.5 to 7.2. Maximum no of films are found with a rating of 6.5. Hence it can be concluded that most of the films on Didney+ are rated average to good.

NETFLIX: For Netflix, a large no of movies movies fall in the range 5.8 to 7.4. Highest no of movies are found with a 6.5 rating and there are slightly over a 100 movies with ratings 8 and above.

AMAZON: A large number of movies in Amazon fall in the IMDb range of 5.7 to 7.3. An unusually large number of films have the rating 7.2. There are just above 200 films with ratings 8 and above.

CONCLUSION: It can be concluded that all the three OTT platforms have similar percentage of highly rated films with Disney+ having the most and Amazon having the least. However Amazon has a huge spike with films rated 7.2.

GENRES BY AGE:



INTERPRETATION:

DISNEY: It can be observed that in the age group 7+ consume most of the content and prefer Animation followed by Comedy and Adventure. 13+ children prefer action and content for age above that is very low.

AMAZON: It can be observed that for all age groups from 7+ to 18+ the most widely consumed genre is Drama. This is followed by romance in younger audiences and horror in older audiences.

NETFLIX: It can be observed that the most widely consumed genre in Netflix across all age groups is Comedy. This is followed by Action for older audiences and animation for younger audiences.

CONCLUSION: It can be concluded that the most viewed genre for each OTT platform are:

Netflix- Comedy

Amazon-Drama

Disney+-Animation.

Hence we can conclude that Disney+ is geared more towards a younger audience Amazon towards older audience, and Netflix towards a mix of both.

IMDb BY GENRES:



INTERPRETATION:

The bar graphs show the average IMDb rating for each genre in the OTT platforms.

From the graph it is clear that Reality-TV shows have the highest IMDb rating in Netflix with an average rating of 7.7, musical genre has the highest average IMDb rating of 8.5 in Disney plus and crime movies have the highest average IMDb rating of 7.5 in Amazon prime.

In conclusion , fans of reality tv shows can opt for Netflix , Musical genre lovers can prefer Disney plus and crime movie fans can opt for amazon prime.

ADVANTAGES:

- This platform provides detailed analysis data on the content available and popular on each OTT platform based on a variety of parameters.
- The results provide clarity on content based on regional and language preferences which is useful for Indian users and distributors.
- This model is very useful for determining what kind of content will be consumed more in which regions and among which demographics.
- This model is also used for providing recommendations to a user for each platform based on ratings and popularity.

DISADVANTAGES:

- This analysis does not contain data about the individual no of movies vs TV shows pertaining to each OTT platform.

- This model doesn't give insight into the effect of covid- 19 on viewership and content popularity.
- The analysis is limited to three main OTT platforms- Netflix, Disney+ and Amazon Prime and does not provide information about local platforms or their impact on these major platforms.

APPLICATIONS:

Based on genres the mostly watched shows/movies for different regions will be analyzed. This gives insights for directors or producers to know which genre movie is mostly liked by the people belonging to a particular region or language (other key factors: age, genres, languages, region, runtime etc).

The key factors will be analyzed from the data that may increase the rate of subscription based on the interest of the users. To analyze which OTT platforms are more used by the people from different regions and provide insights on subscription habits of users for promotional activities of the respective OTT platforms.

CONCLUSION:

As India is the world's largest growing OTT industry, this momentum is utilized by the significant increase in the introduction of new OTT players in the market and rapid changes in providing of personalized content. Even the smaller OTT platforms are raising capital from international investors and making a significant impact on the market.

It is quite evident that the arrival of COVID-19 pandemic has aided the OTT platforms with the increased consumption of these by the youth and OTT becoming the most preferred medium. The major benefits incurred from the OTT platforms are the flexibility of usage, availability of cross-cultural & worldwide entertainment and subscription to the user-friendly unlimited content. Also vital are factors like increasing penetration of smartphones and availability of internet data at competitive prices in India.

Netflix, Amazon Prime Video and Disney+, Hotstar are the highest consumed OTT platforms as they satisfy their consumers with the best quality contents and user friendliness. There is also a huge rise in the arrival of regional OTT players in the market. Most of the current users of the OTT platforms are quite satisfied with their experience and majority of

the consumers tend to increase their consumption of OTT in future. This trend can be successfully

explored by the different OTT platforms. The OTT will further go through many changes and advancements to get the right model.

Through our analysis we have provided data on consumption patterns of users based on each parameter for each OTT platform. On the whole it can be concluded that Amazon and Netflix provide much more wider variety of content in terms of genre and languages compared to Disney+. Disney+ is ideal for a young audience while Amazon and Netflix are preferable for older audiences. Amazon and Netflix both provide good content that is produced in India and preferred OTT platform can be chosen based on audience preference according to data on language, genres and ratings, all of which have been analyzed and presented.

FUTURE SCOPE:

The given datasets are pre processed and analyzed according to the given factors like regions, ratings, reviews, languages, genres, etc. Based on genres the mostly watched shows/movies for different regions will be analyzed. The statistical model of the given data will be shown that helps the OTT platforms to analyze the interests of their subscribers. It can also be used to design recommendation systems tailored to the preferences of the user. This model can also be expanded to include information about subscriptions, analyze user habits who use multiple platforms, analyze performance of original shows vs movies/shows produced by other networks etc.

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DONE BY:

VINU ABINAYAA R (TEAM LEAD)

VARSHINI G

SHWATHI RAMANATHAN

SAMYUKTHA