

## OTT ANALYSIS TOOL

Team: Neena, Rithika, Divya Prabha, Divya Bharathi

### PROBLEM STATEMENT – (REQUIREMENTS)

#### GENERAL DESCRIPTION

The Indian video OTT market in India is expected to grow from USD 1.5 billion in 2021 to USD 4 billion in 2025 and further to USD 12.5 billion by 2030. Under COVID-19, many countries introduced social distancing measures that forced theaters to limit the number of audiences or even shut down and that encouraged people to stay at home, accelerating the increase in OTT platform subscriptions. Therefore, it is the right time to analyze different OTT platforms and provide useful information for people who are not able to decide which platform fits them best.

In this project we are expected to analyze OTT platforms with the given data sets containing information of different aspects of each OTT platform such as country, movie names, series names, cast, director, year produced, etc. Refer – Figure – 1.



Figure -1- OTT Dashboard

## UNIQUENESS OF THE PROJECT

With the given data sets, this project brings out two main uniqueness to the forum: Suggestion and Business point of view.

Consumers expect streaming content from robust OTT apps for mobile and connected TVs. Generally, the best ott platform varies from country to country.

### Netflix

Netflix is one of the largest OTT platforms in the world. Though they charge a high amount of cost for subscription, it is one of the best platforms. Netflix has content, both classic and exclusive, for all ages and audiences. Refer – Figure 2.



Figure 2 – Netflix Dashboard

### Disney Plus

If you like more animated movies, then Disney Plus is the best choice. Disney plus has more animated movies and marvel series.



Figure 3 – Disney+ Hotstar Dashboard

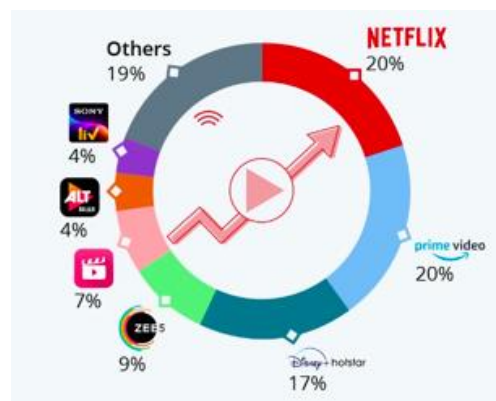
The highest rated Genre in all the three OTT Platforms is found to be:



## **BUSINESS IMPACT**

OTT video business has been fueled during this covid era more than any other. The OTT platforms have been expected to increase from 1.5 billion to 4 billion by the end of 2025. Currently, OTT platforms contribute to the Indian economy with over 2 billion every year. OTTs have helped usher in economic and social transformation beyond traditional communications services in the ever-growing digital economy.

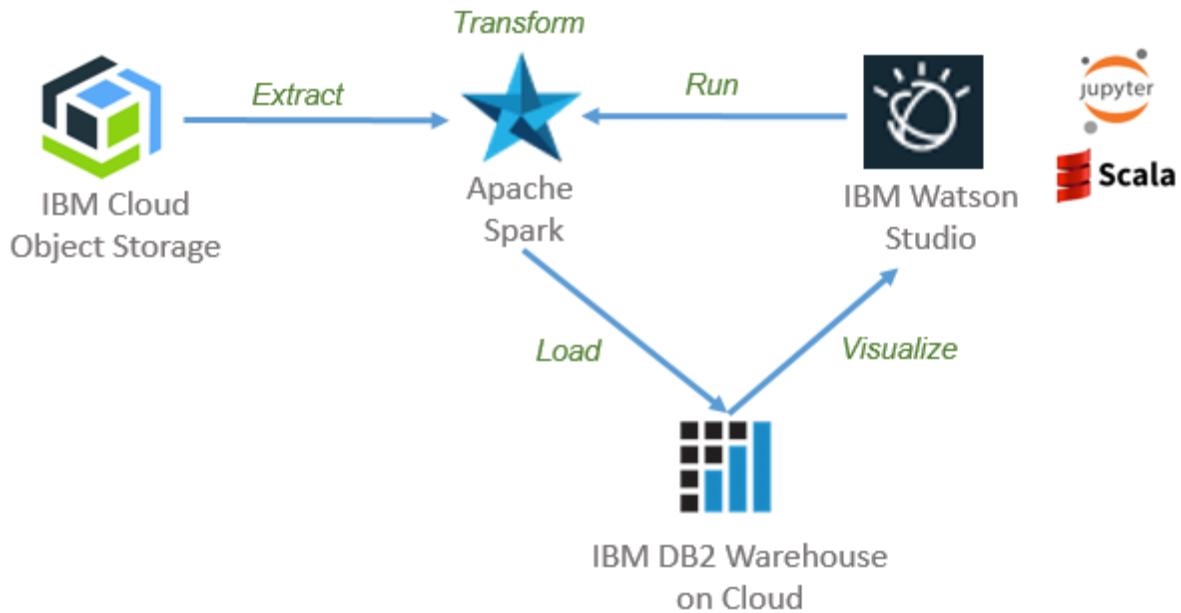
Our project distinguishes between the three most famous OTT platforms globally, i.e. **Netflix**, **Hotstar**, **Disney+**. We've taken a **business point of approach** to analyze the top three countries in the aforementioned OTT platforms and the top 3 genres viewed by the population. By doing so, this model will be of a huge influence to increase the OTT's **profit margins**.



Source: JustWatch via Quartz India

## **TECHNOLOGY STACK**

IBM Cloud Object Storage provides storage for training data and scoring results. When you create a project, IBM Cloud Object Storage is created for you automatically and associated with your IBM Cloud user account. There might be times when you want to manually create IBM Cloud Object Storage. For example, training a deep learning model using IBM Watson Studio relies on using Cloud Object Storage for reading input (such as training data) as well as for storing results (such as log files.) This topic is how to set up Cloud Object Storage, using a deep learning experiment as the example.



Refer – Figure – 4 – Technology Cloud Stock

## **SCOPE OF WORK**

The key benefit of this project is to boost the profit from a business point of view. The diverse data we collected in this project such as which genre is most viewed and has gained popularity over that specific geography paves an easy path to target the right audience. Thus, analyzing the data collected plays a crucial role in OTT platforms. Statistics on Box Office makes it easier for investors providing them what the audience expect is the first priority for success in business.

Eg;

The most popular movie genres preferred by different countries;

- 1) Brazil - Action
- 2) Argentina-Comedy
- 3) USA-Comedy
- 4) Japan-Fantasy
- 5) Germany-Action/adventure
- 6) India-Adventure
- 7) Italy-Comedy
- 8) France-comedy
- 9) Sweden-Drama/comedy/action
- 10) Australia-Action

The core of this project involves collecting data, analyzing data and targets to make them useful and profitable, which gives a great hand in to Business.

# AMAZON PRIME - DATA ANALYSIS

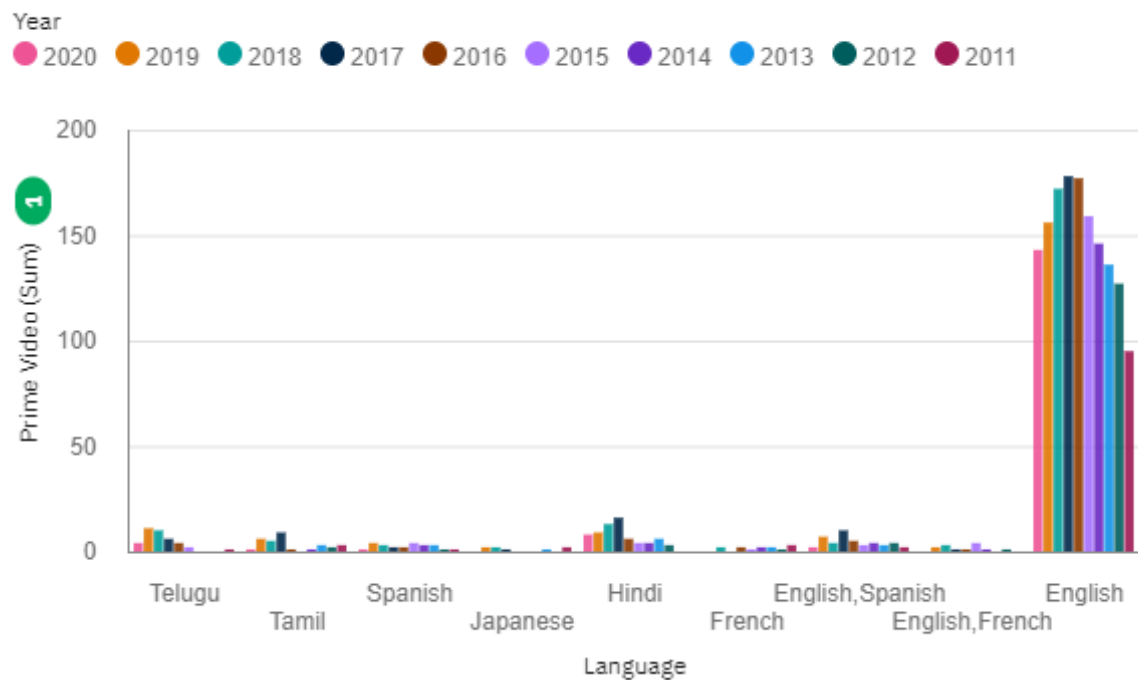


TOTAL MOVIES AVAILABLE

4.11K

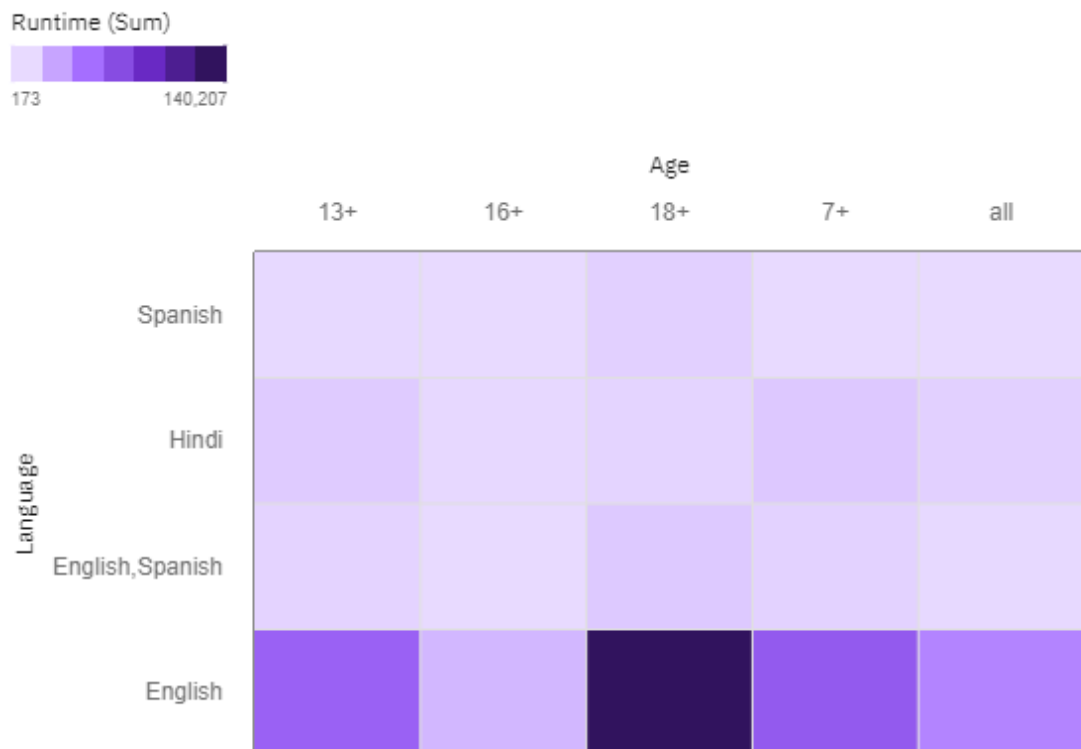
Prime Video

### Prime Video by Language colored by Year



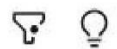
- For Prime Video, English is the most important category of Language with a total value of 1489 (86.1 % of the total).

### Runtime by Language and Age

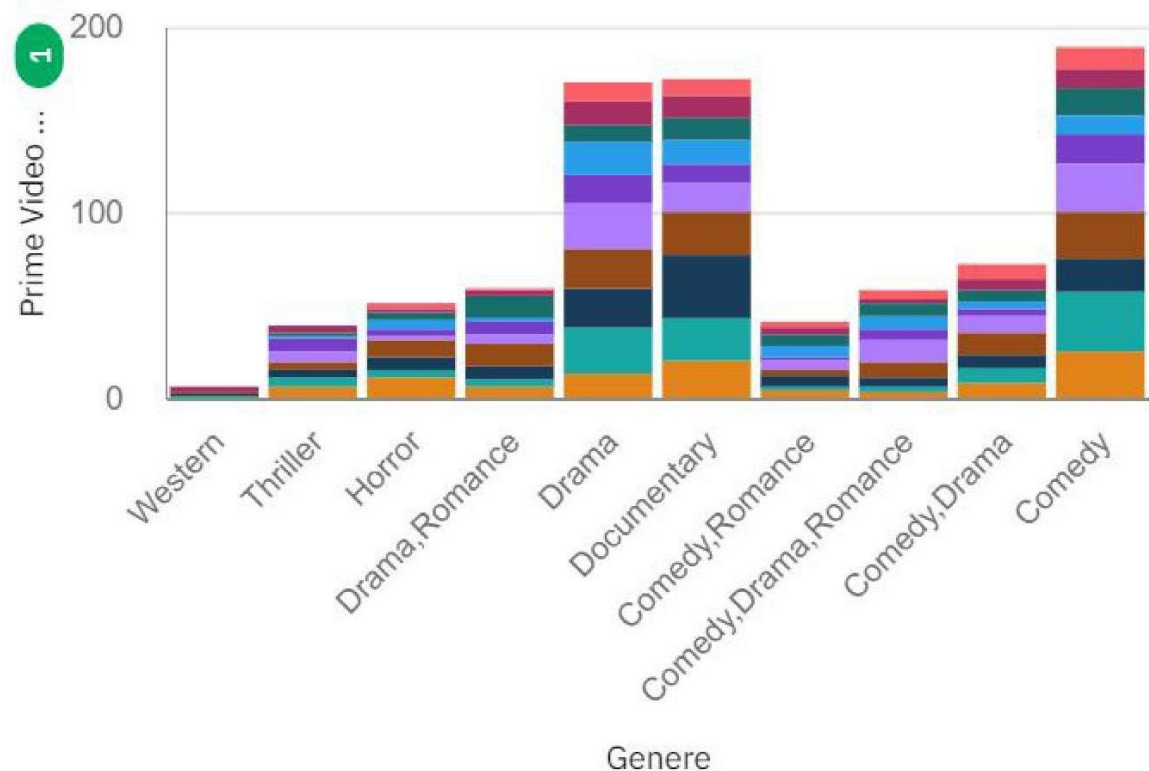


- The value of Runtime is unusually high when Language is English especially within the 18+ age group.

## Prime Video by Genre colored by Year



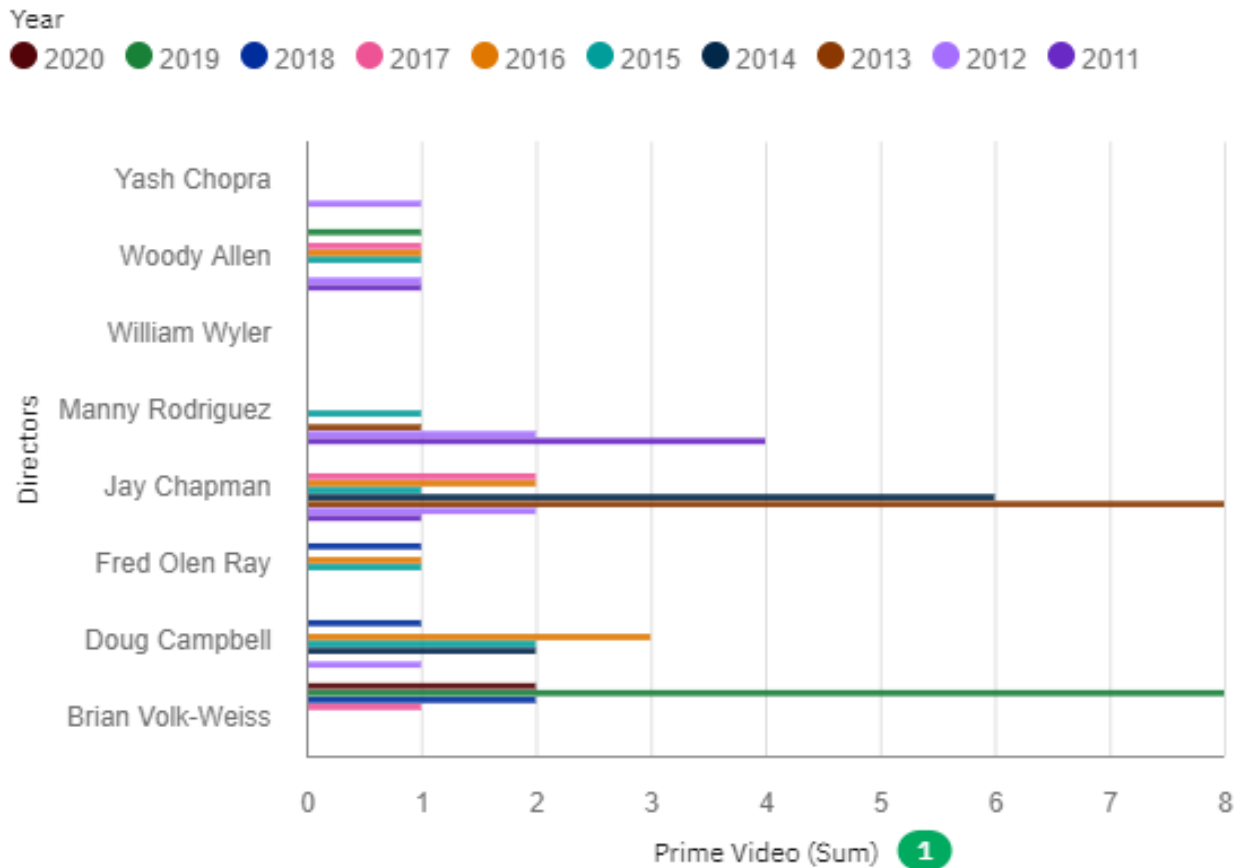
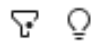
Year



- For Prime Video, Comedy, Documentary, and Drama are the most important categories of Genres with a total value of 531 (62 % of the total).
- The value of Prime Video is unusually high when Genres is Comedy.
- For Prime Video, 2017, 2018, 2019, 2016, and 2020 are the most important categories of Year with a total value of 537 (62.7 % of the total).
- The value of Prime Video is most unusual when the values of Year are 2011, 2017 and 2012.
- The sum of Prime Video for all values of Genres and Year is 857.



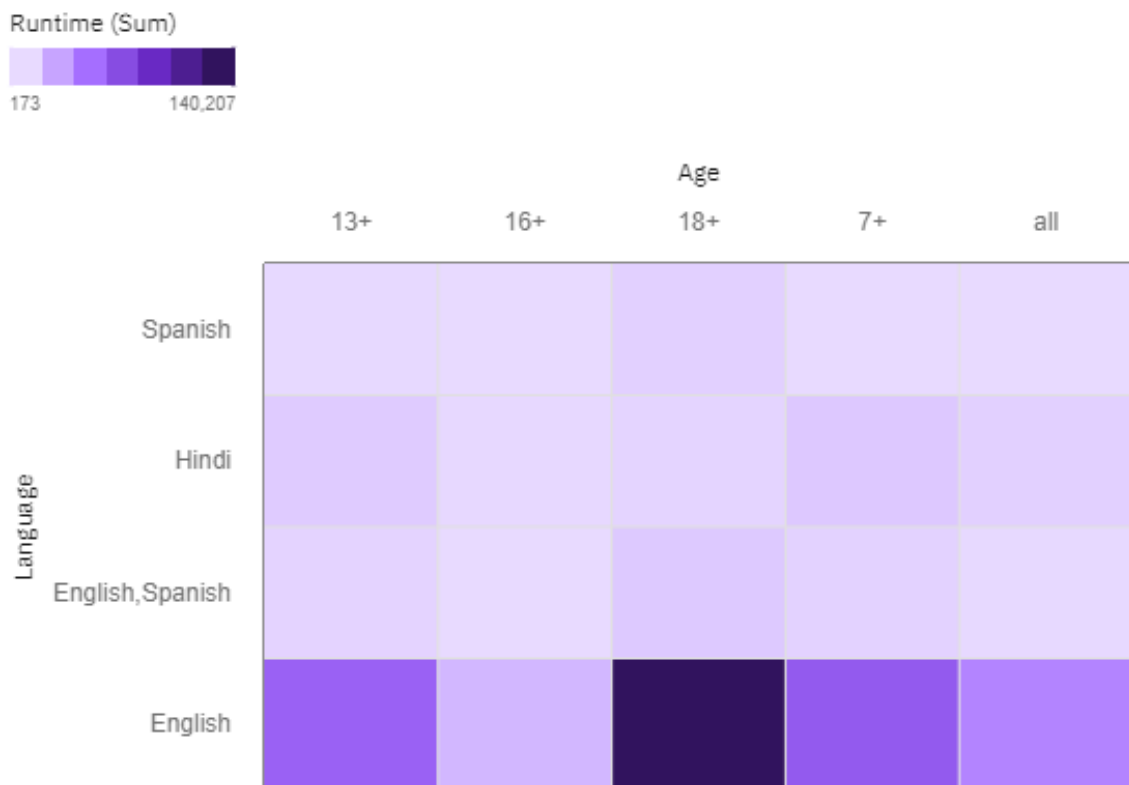
## Prime Video by Directors colored by Year



- For Prime Video, Jay Chapman is the most important category of Directors with a total value of 22 (35.5 % of the total).
- The value of Prime Video is unusually high when Directors is Jay Chapman.
- For Prime Video, 2019, 2013, 2014, 2016, and 2012 are the most important categories of Year with a total value of 40 (64.5 % of the total).
- The sum of Prime Video for all values of Directors and Year is 62.

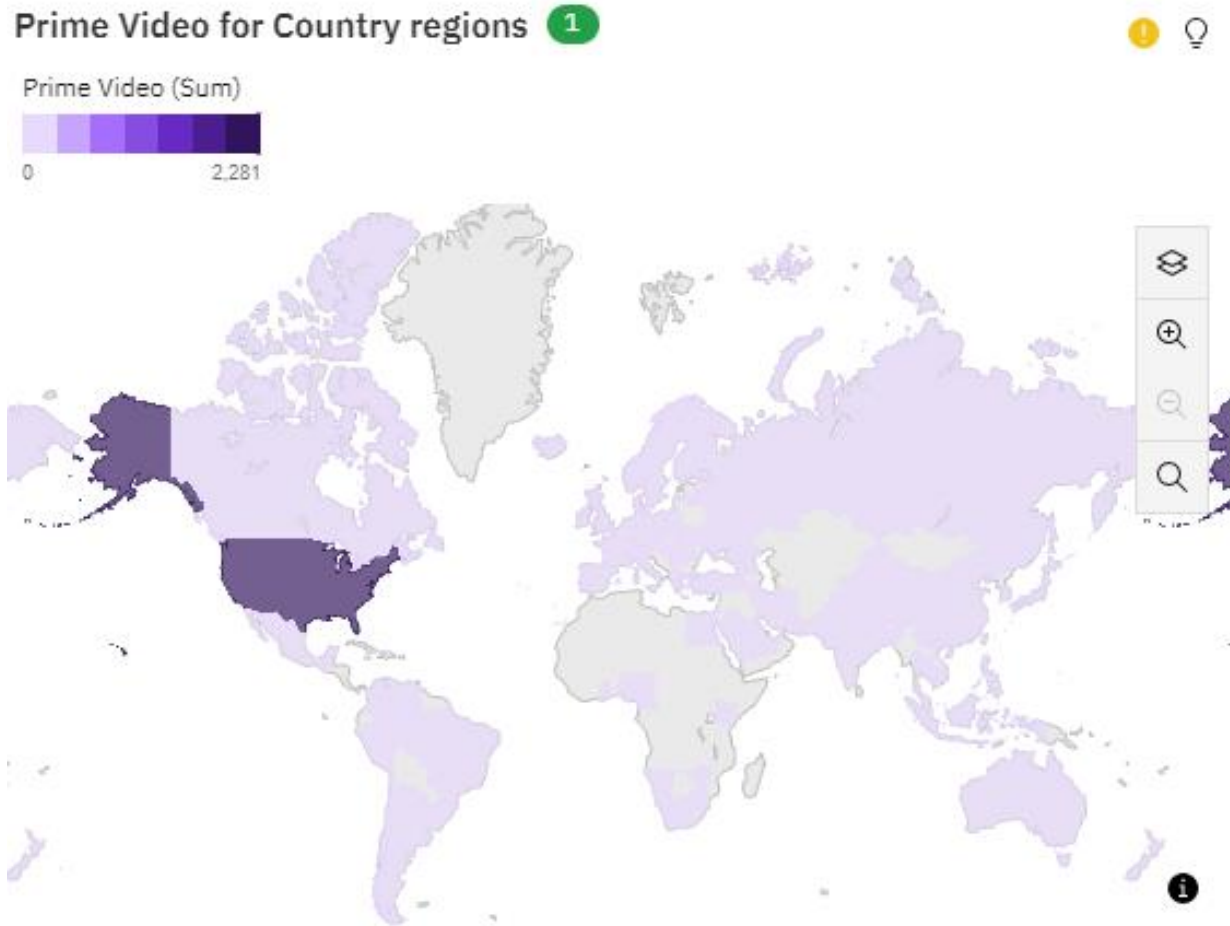
- The summed values of Prime Video over all combinations of the inputs range from a minimum of 0 to a maximum of 8.

Runtime by Language and Age



- For Runtime, 18+ is the most important category of Age with a total value of 66,742 (51.8 % of the total).
- The value of Runtime is unusually high when Age is 18+.
- For Runtime, Comedy and Drama are the most important categories of Genres with a total value of 53,777 (41.8 % of the total).
- The value of Runtime is unusually high when Genres is Comedy.
- The sum of Runtime for all values of Genres and Age is 128,763.
- The summed values of Runtime over all combinations of the inputs range from a minimum of 81 to a maximum of 17,109.

- The value of Runtime is unusually high when the combination of Genres and Age is Comedy + 18+

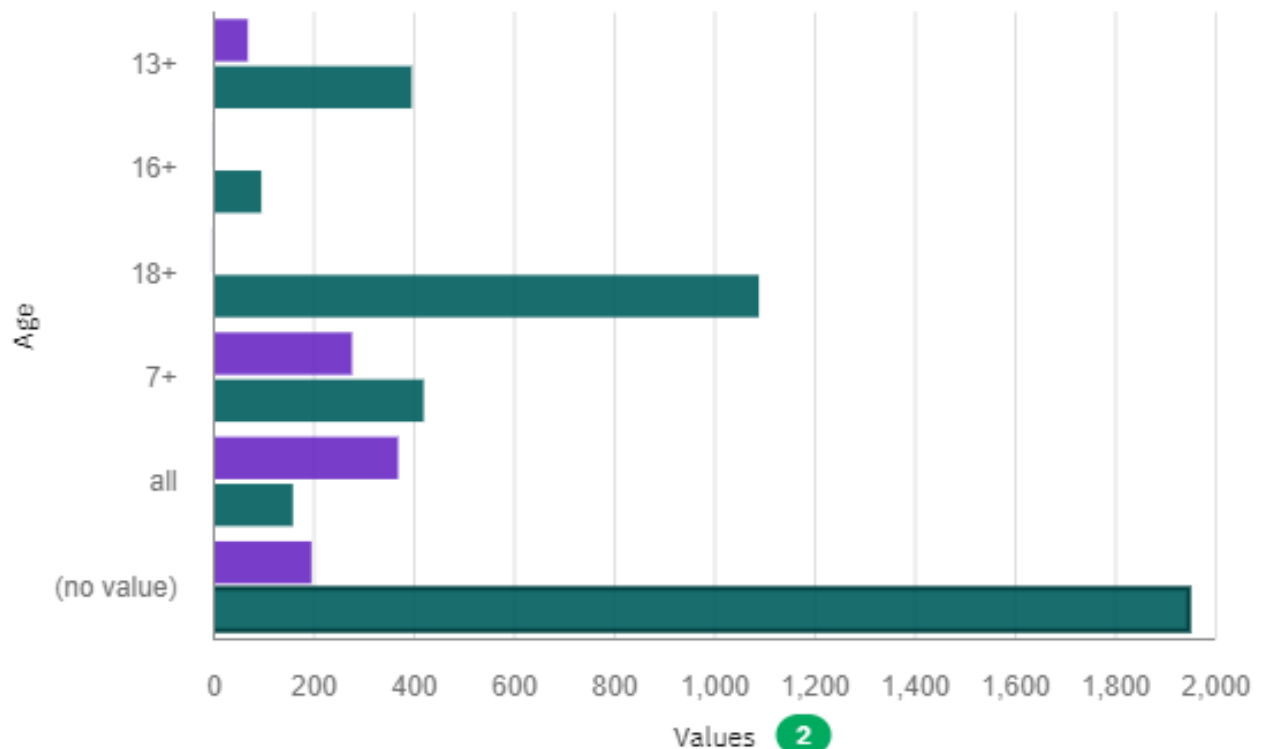


- The sum of Prime Video for all values of Country is 4113.
- The summed values of Prime Video range from a minimum of 0 (when Country is India,United States,United Kingdom,Australia,Kenya,Namibia) to a maximum of 2281 (when Country is United States).
- The value of Prime Video is unusually high when Country is United States

## Prime Video and Disney+ by Age

Measures

● Disney+ ● Prime Video



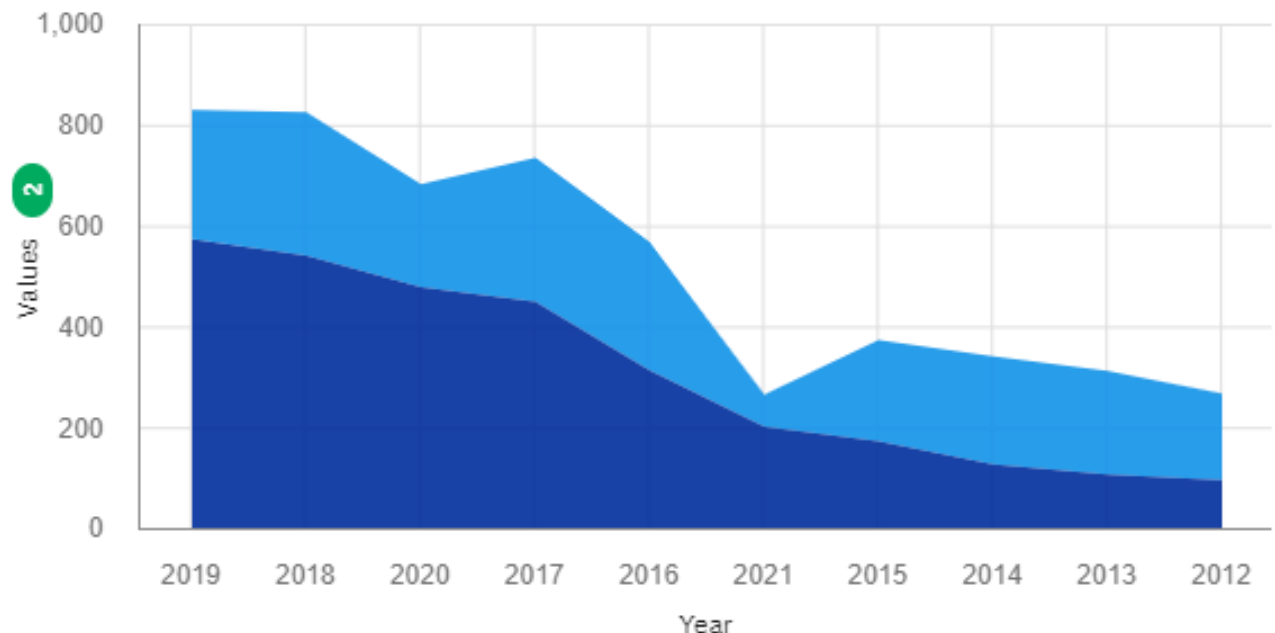
- The summed values of Disney+ range from a minimum of 3 (when Age is 18+) to a maximum of 370 (when Age is all).
- The summed values of Prime Video range from a minimum of 97 (when Age is 16+) to a maximum of 1948 (when Age is (no value)).
- The value of Disney+ is unusually high when Age is all.
- The total number of results for Disney+ for all values of Age is 9515.
- The average of Disney+ for all values of Age is 0.0969.
- (no value) is the most frequently occurring category of Age with a count of 4177 items (43.9 % of the total).
- The total number of results for Prime Video for all values of Age is 9515.
- The average of Prime Video for all values of Age is 0.4323

## Prime Video and Netflix by Year



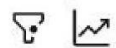
### Measures

● Netflix ● Prime Video



- The summed values of Netflix range from a minimum of 95 (when Year is 2012) to a maximum of 573 (when Year is 2019).
- The summed values of Prime Video range from a minimum of 63 (when Year is 2021) to a maximum of 285 (when Year is 2018).
- The value of Netflix is unusually high when Year is 2019.
- The total number of results for Netflix for all values of Year is 6099.
- The average of Netflix for all values of Year is 0.5006.
- 2019 (16.6 %), 2018 (15.5 %), 2020 (14.1 %), 2017 (13.6 %), and 2016 (10.6 %) are the most frequently occurring categories of Year with a combined count of 4296 items (70.4 % of the total).
- The total number of results for Prime Video for all values of Year is 6099.
- The average of Prime Video for all values of Year is 0.3507

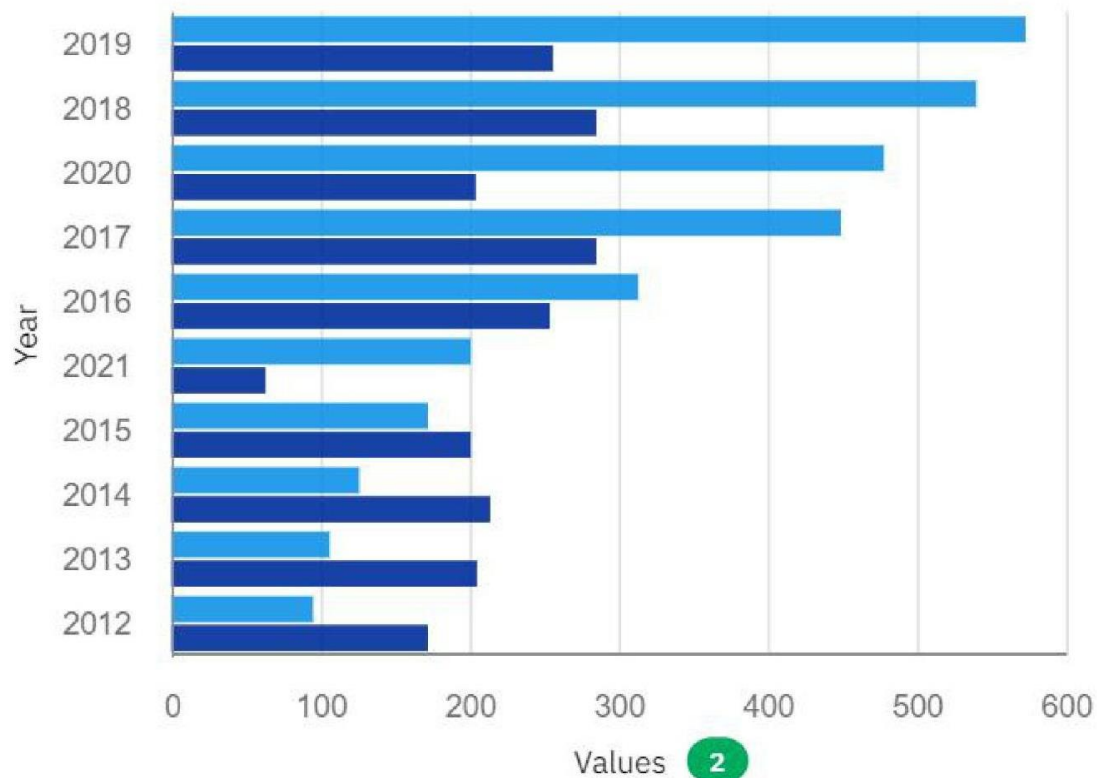
## Prime Video and Netflix by Year



Measures

Netflix

Prime Video



Evidently, from 2016, the usage of Prime has decreased leading Netflix to be the most used OTT platform.

## NETFLIX - DATA ANALYSIS

# NETFLIX

TOTAL MOVIES AVAILABLE

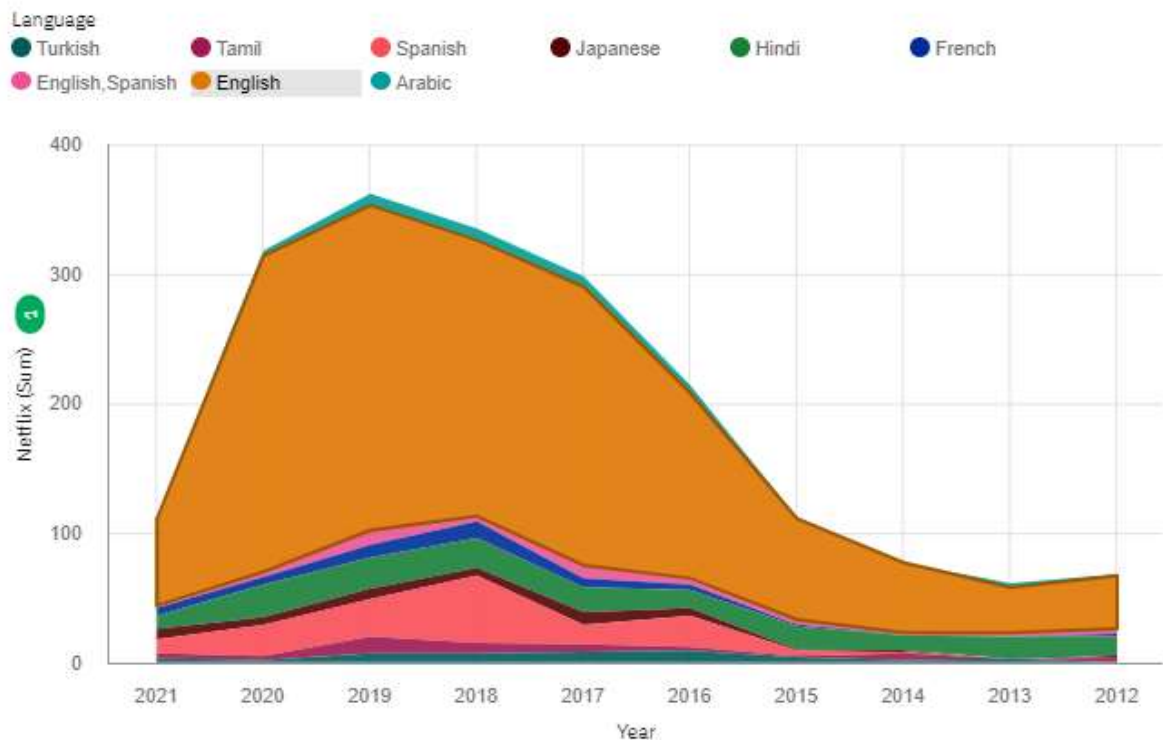
3.7K

Netflix

The total number of results for Netflix is 9515.

# LANGUAGE:

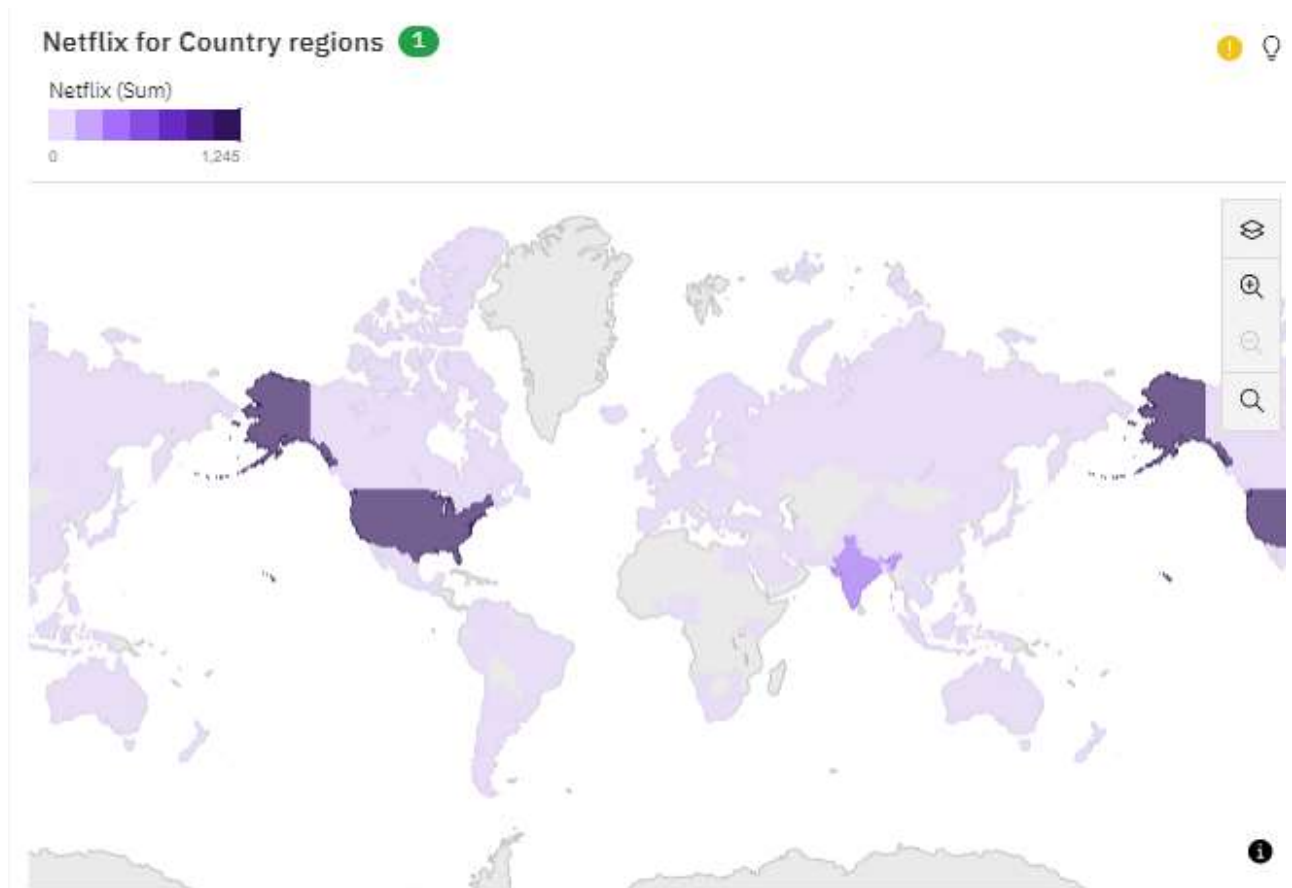
Netflix by Year colored by Language



- For Netflix, English is the most important category of Language with a total value of 1341 (68.5 % of the total).
- The value of Netflix is unusually high when Language is English.
- The sum of Netflix for all values of Year and Language is 1958.
- For Netflix, 2019, 2018, 2020, 2017, and 2016 are the most important categories of Year with a total value of 1527 (78 % of the total).
- The summed values of Netflix over all combinations of the inputs range from a minimum of 0 to a maximum of 251.
- The value of Netflix is unusually high when the combinations of Year and Language are 2019 + English, 2020 + English, 2017 + English, 2018 + English and 2016 + English.



## COUNTRY:



- The sum of Netflix for all values of Country is 3695.
- The summed values of Netflix range from a minimum of 0 (when Country is South Africa,China,United States) to a maximum of 1245 (when Country is United States).
- The value of Netflix is unusually high when Country is United States.

## GENERE :

Netflix by Genre and Year 1



- For Netflix, 2018, 2019, 2017, 2020, and 2016 are the most important categories of Year with a total value of 1023 (79.9 % of the total).
- The value of Netflix is unusually high when the values of Year are 2018 and 2019.
- The sum of Netflix for all values of Genre and Year is 1280.
- For Netflix, Comedy is the most important category of Genre with a total value of 417 (32.6 % of the total).
- The summed values of Netflix over all combinations of the inputs range from a minimum of 0 to a maximum of 91.
- The value of Netflix is unusually high when the combination of Genre and Year is Comedy + 2018.

- The value of Netflix is unusually high when Genere is Comedy.

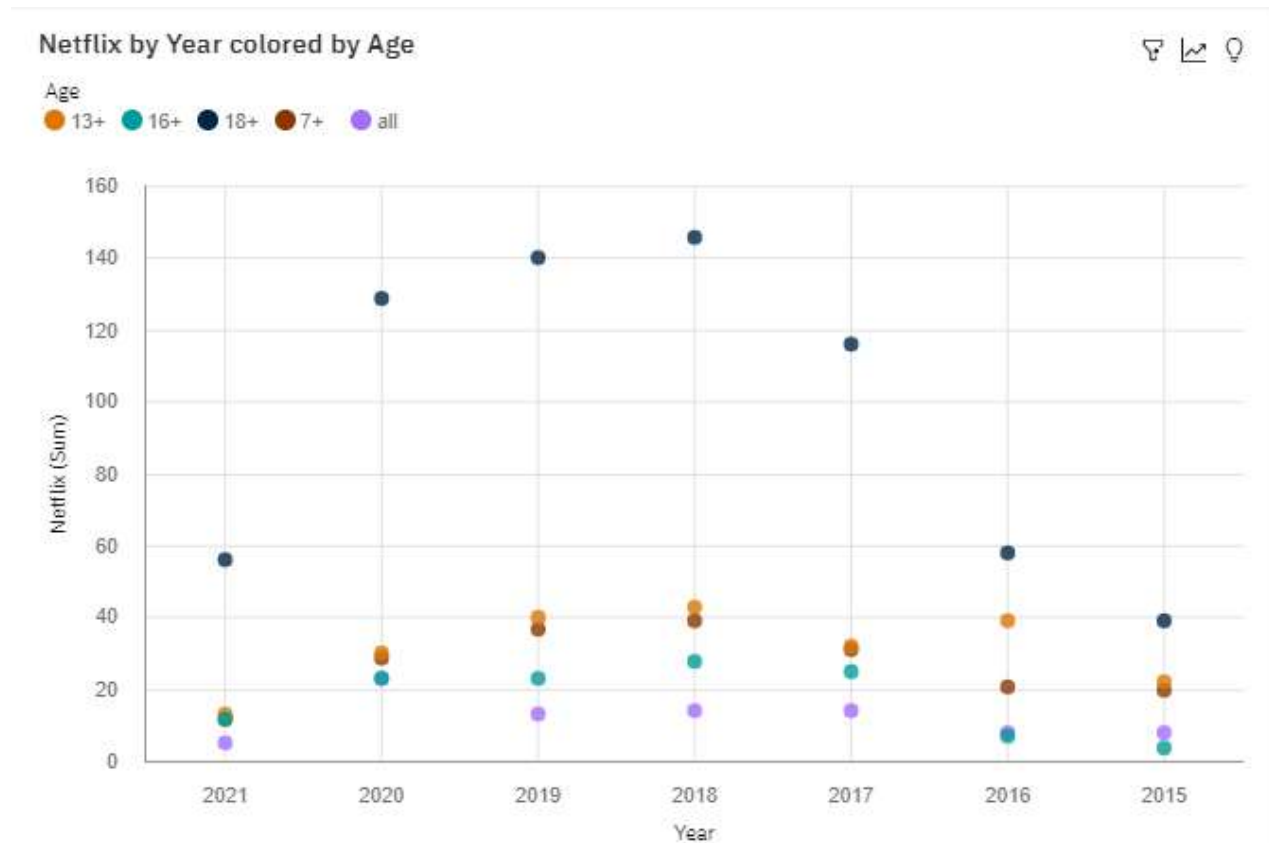
## **DIRECTORS :**



- For Netflix, Raúl Campos,Jan Suter is the most important category of Directors with a total value of 22 (21.8 % of the total).
- The value of Netflix is unusually high when Directors is Raúl Campos,Jan Suter.
- The sum of Netflix for all values of Directors and Year is 101.
- For Netflix, 2018 and 2017 are the most important categories of Year with a total value of 58 (57.4 % of the total).
- The summed values of Netflix over all combinations of the inputs range from a minimum of 0 to a maximum of 14.
- The value of Netflix is unusually high when the combination of Directors and Year is Raúl Campos,Jan Suter + 2018.

- The value of Netflix is unusually high when the values of Year are 2018 and 2017.

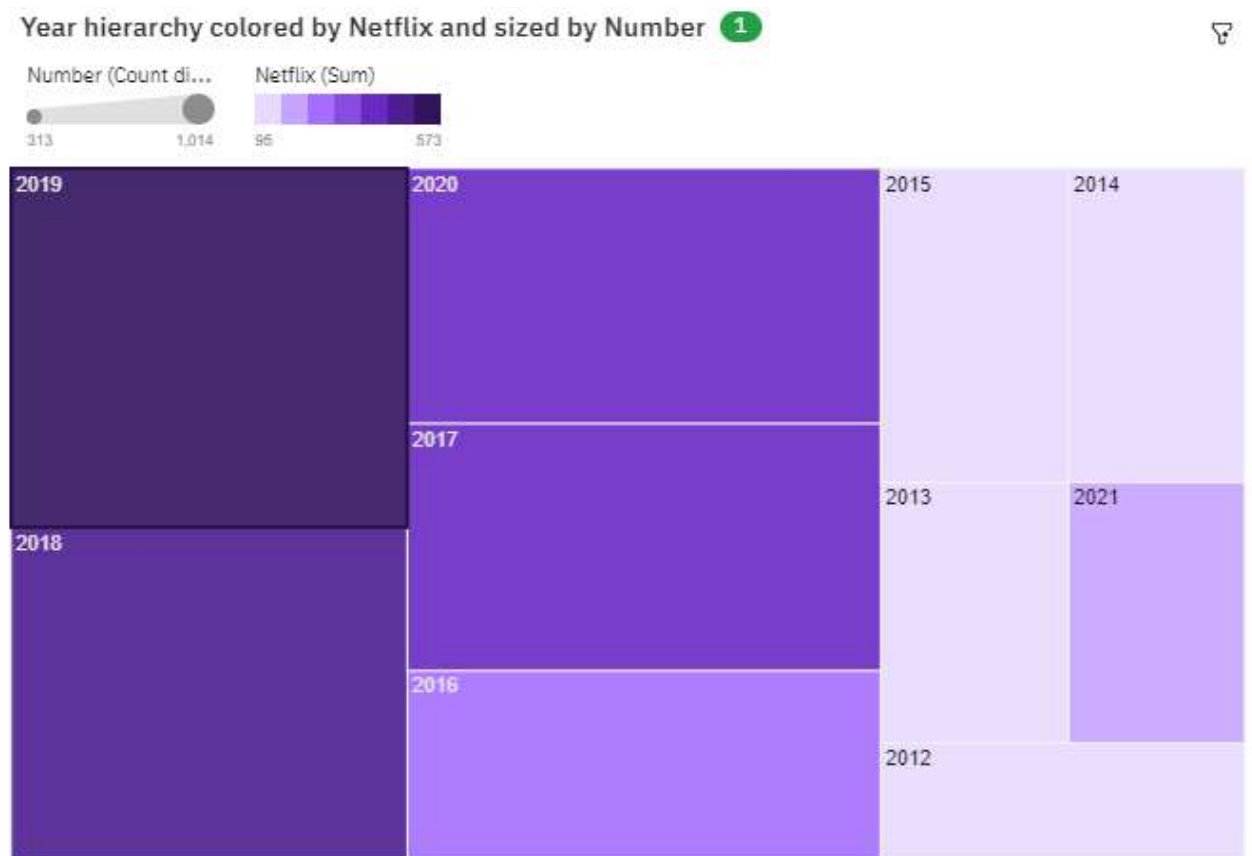
## AGE :



- For Netflix, 18+ is the most important category of Age with a total value of 684 (52.7 % of the total).
- The value of Netflix is unusually high when Age is 18+.
- The sum of Netflix for all values of Year and Age is 1299.
- For Netflix, 2018, 2019, 2020, and 2017 are the most important categories of Year with a total value of 975 (75.1 % of the total).
- The summed values of Netflix over all combinations of the inputs range from a minimum of 4 to a maximum of 146.
- The value of Netflix is unusually high when the combinations of Year and Age are 2018 + 18+, 2019 + 18+, 2020 + 18+ and 2017 + 18+.

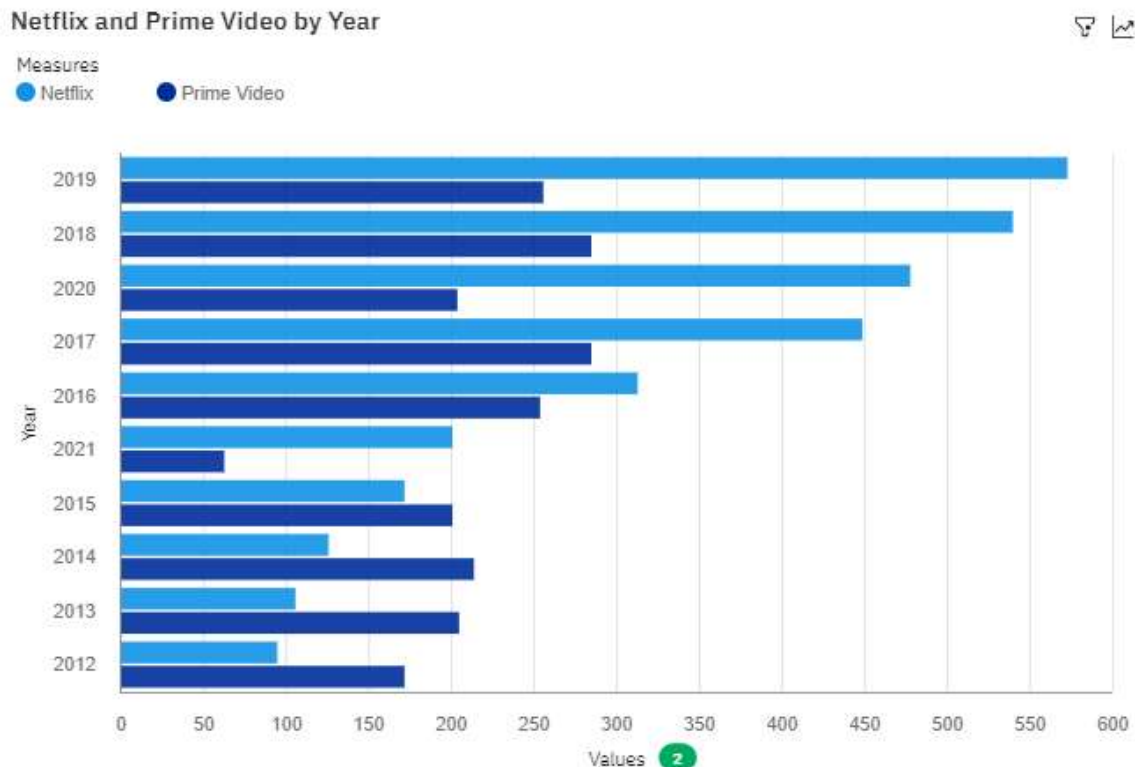
- The value of Netflix is unusually low when the values of Year are 2015 and 2021.

## **NUMBER OF MOVIES RELEASED BY YEARS :**



- The total number of results for Number for all values of Year is 6099.
- 2019 (16.6 %), 2018 (15.5 %), 2020 (14.1 %), 2017 (13.6 %), and 2016 (10.6 %) are the most frequently occurring categories of Year with a combined count of 4296 items (70.4 % of the total).
- The value of Netflix is unusually high when Year is 2019.

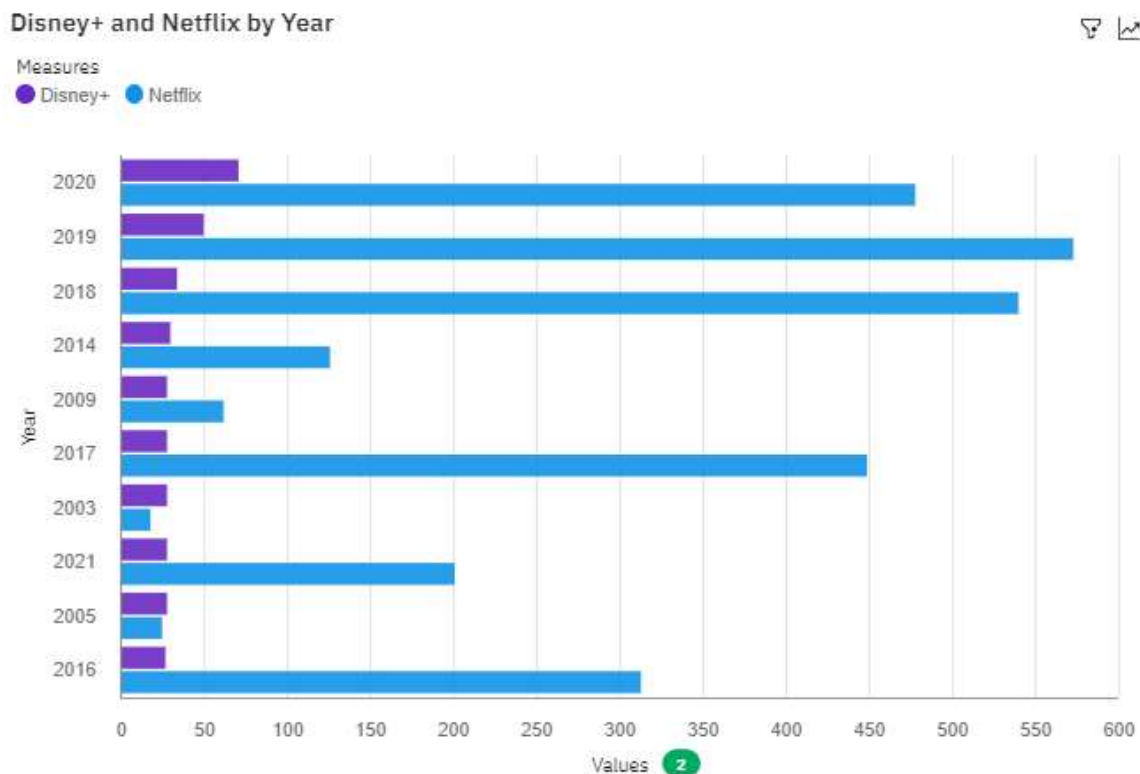
## NETFLIX AND PRIME COMPARISON : (BASED ON YEARS)



- The total number of results for Netflix for all values of Year is 6099.
- The average of Netflix for all values of Year is 0.5006.
- 2019 (16.6 %), 2018 (15.5 %), 2020 (14.1 %), 2017 (13.6 %), and 2016 (10.6 %) are the most frequently occurring categories of Year with a combined count of 4296 items (70.4 % of the total).
- The total number of results for Prime Video for all values of Year is 6099.
- The average of Prime Video for all values of Year is 0.3507.
- The summed values of Netflix range from a minimum of 95 (when Year is 2012) to a maximum of 573 (when Year is 2019).

- The summed values of Prime Video range from a minimum of 63 (when Year is 2021) to a maximum of 285 (when Year is 2018).

## **NETFLIX AND DISNEY COMPARISON:** **(BASED ON YEARS)**



- The total number of results for Netflix for all values of Year is 5444.
- The average of Netflix for all values of Year is 0.5116.
- 2019 (18.6 %), 2018 (17.4 %), 2020 (15.8 %), 2017 (15.3 %), and 2016 (11.8 %) are the most frequently occurring categories of Year with a combined count of 4296 items (78.9 % of the total).
- The summed values of Disney+ range from a minimum of 27 (when Year is 2016) to a maximum of 71 (when Year is 2020).
- The summed values of Netflix range from a minimum of 18 (when Year is 2003) to a maximum of 573 (when Year is 2019).

# DISNEY PLUS – DATA ANALYSIS

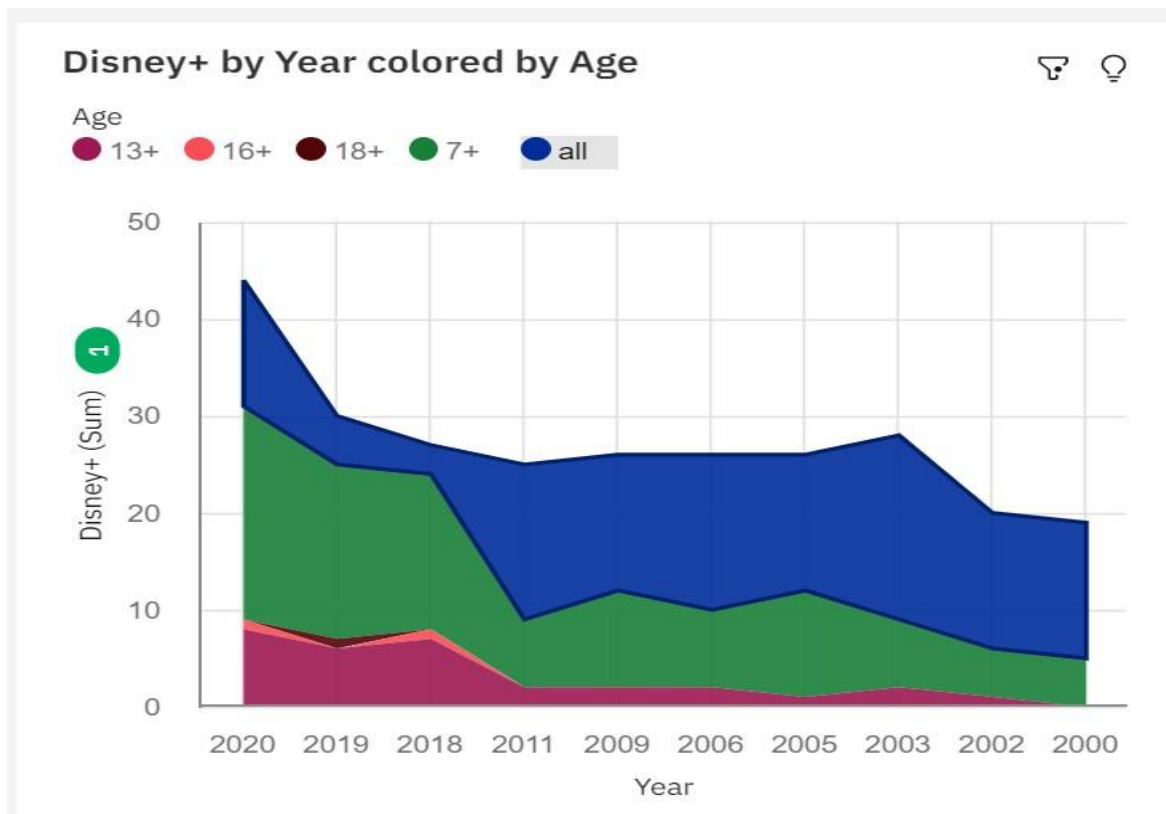




# 922

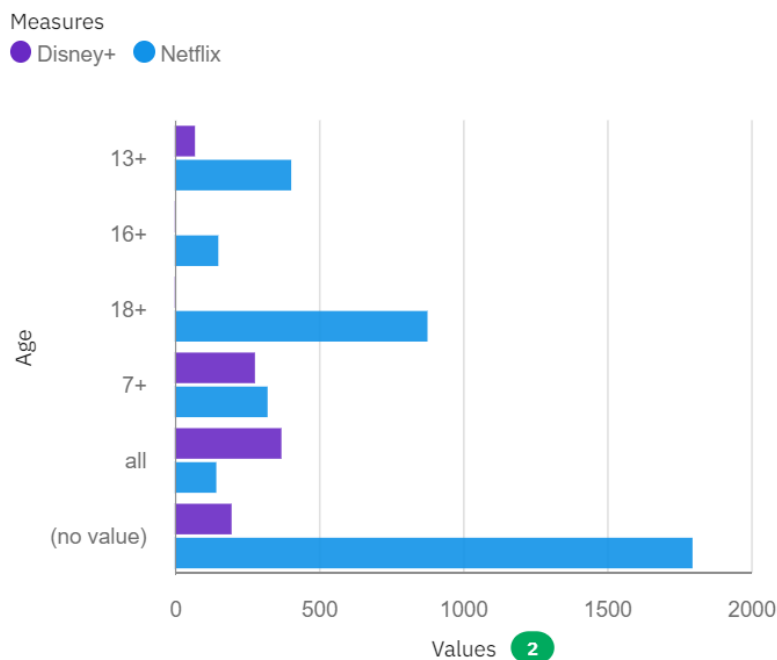
Disney+

- The total number of **Movie** in Disney+ is 9515.



- For Disney+, **7+** is the most **important** category of Age with a total value of **124** (35.2 % of the total).
- The sum of Disney+ for all values of Year and Age is 352.
- For Disney+, **2020** is the most **important category of Year** with a total value of 71 (20.2 % of the total).
- The summed values of Disney+ over all combinations of the inputs range from a **minimum of 0** to a **maximum of 27**.
- The value of Disney+ is unusually high when the combinations of Year and Age are 2020 + 7+, 2019 + 7+ and more.
- The value of Disney+ is unusually high when Year is 2020

## Netflix and Disney+ by Age



- The total number of results for Disney+ for all values of Age is 9515.
- The average of Disney+ for all values of Age is 0.0969.
- The summed values of Disney+ range from a minimum of 3 when Age is 18+ to a maximum of 370 when Age is all.

•

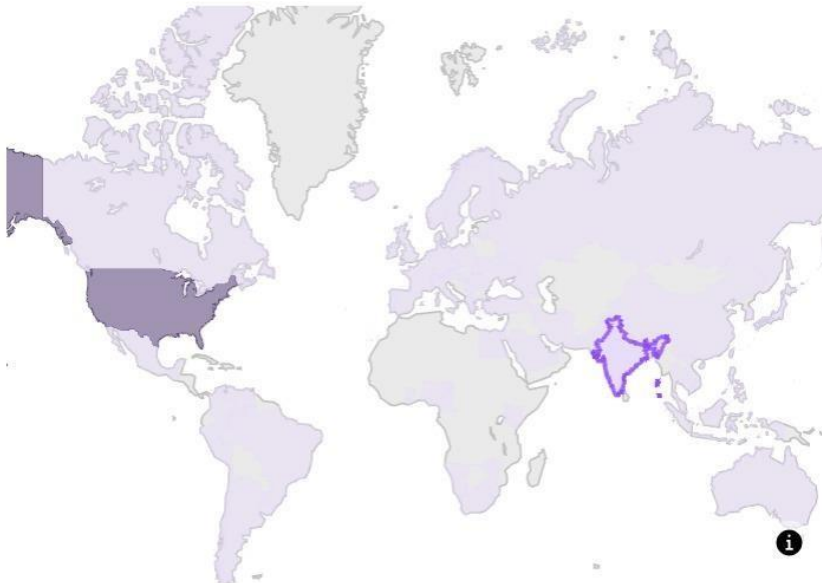
## NETFLIX

- The average of Netflix for all values of Age is 0.3883.
- The summed values of Netflix range from a minimum of 144 when Age is all to a maximum of 1797 when Age is 18+

## Disney+ for Country regions 1

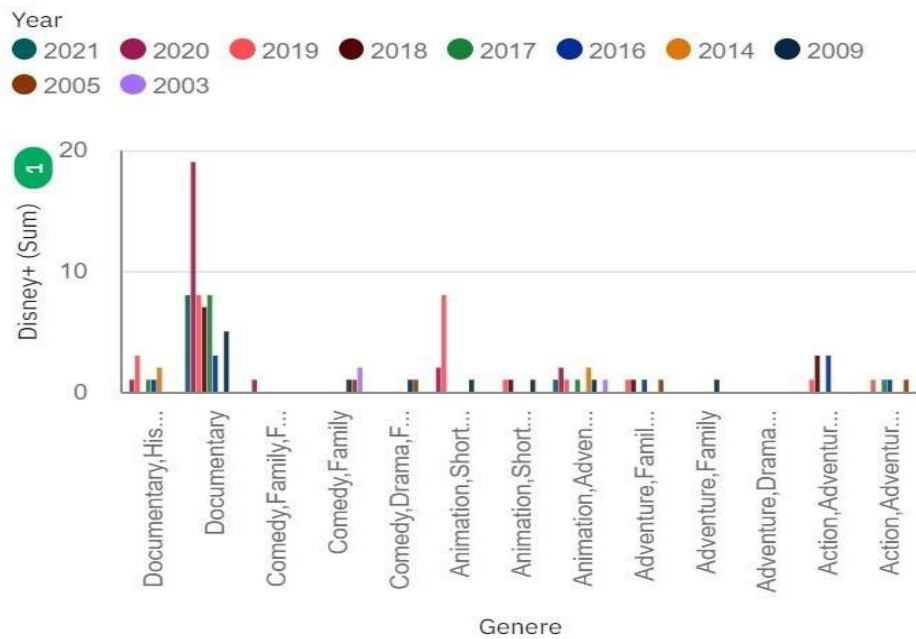


Disney+ (Sum)



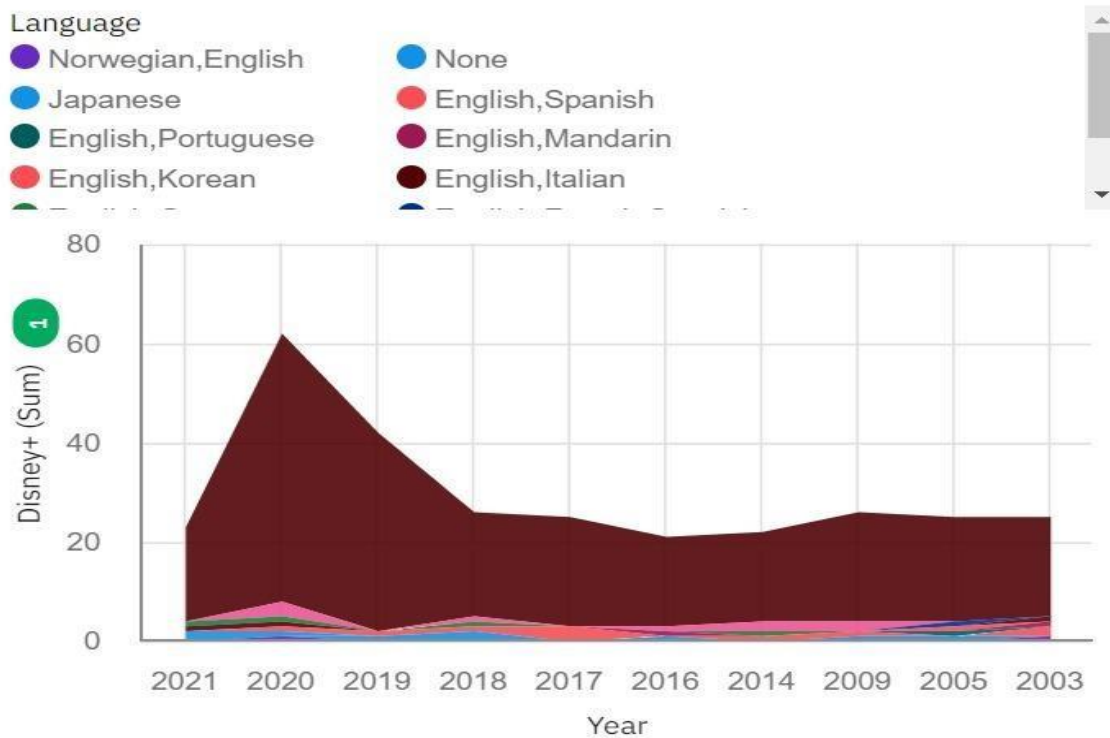
- The sum of Disney+ for all values of Country is 922.
- The summed values of Disney+ range from a minimum of 0 (when Country is Mexico) to a maximum of 687 (when Country is United States).
- The value of Disney+ is unusually high when the values of Country are United States.
- Canada, United States, United Kingdom, United Kingdom, United States and more.

Disney+ by Genre colored by Year

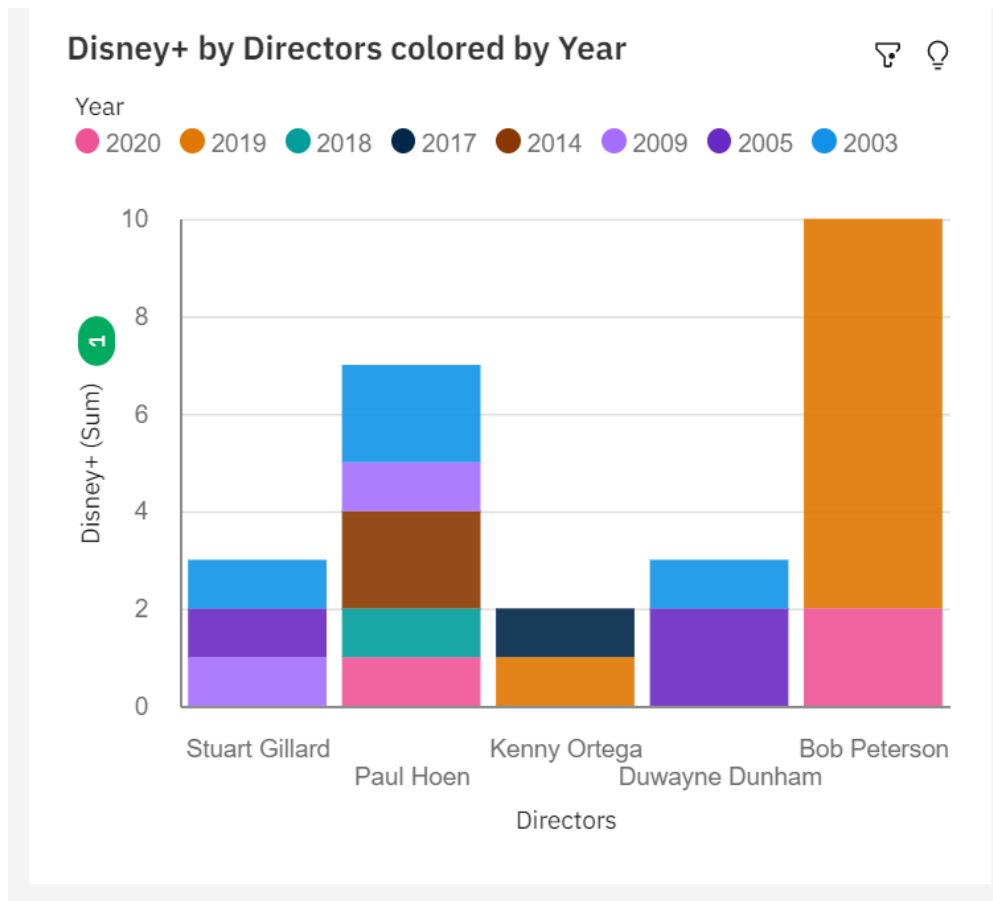


- For Disney+, Documentary is the most important category of Genre with a total value of 58 (51.8 % of the total).
- The value of Disney+ is **unusually high** when Genre is **Documentary**.
- The sum of Disney+ for all values of Genre and Year is 112.
- The summed values of Disney+ over all combinations of the inputs range from a minimum of 0 to a maximum of 19.

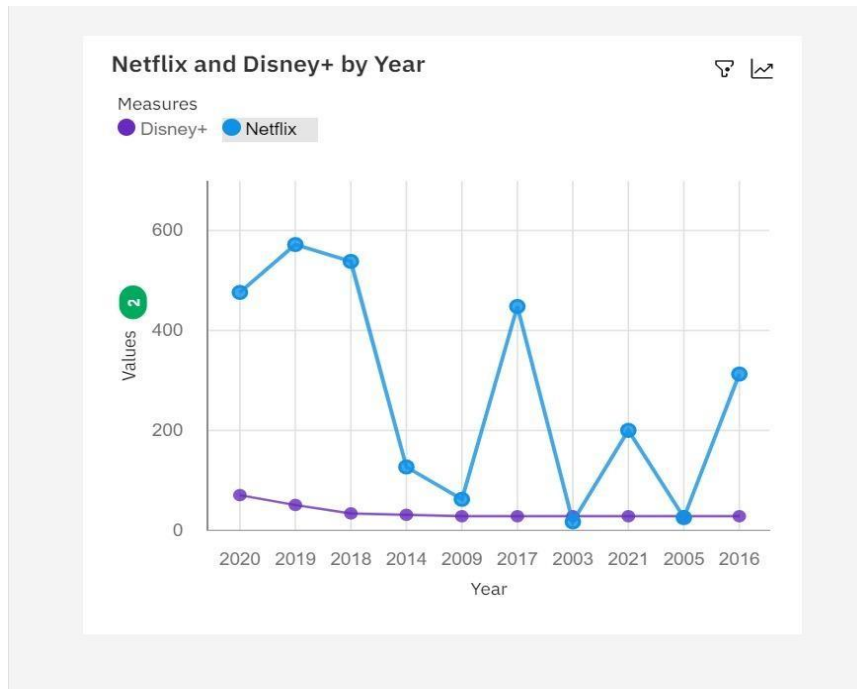
## Disney+ by Year colored by Language



- For Disney+, **English** is the most **important** category of **Language** with a total value of 255 (85.9 % of the total).
- The value of Disney+ is **unusually high** when Language is English.
- The sum of Disney+ for all values of Language and Year is 297.
- The summed values of Disney+ over all combinations of the inputs range from a minimum of 0 to a maximum of 54.
- The value of Disney+ is unusually high when the combinations of Language and Year are English + 2020,
- English + 2019, English + 2017, English + 2009, English + 2018 and more.



- For Disney+, **Bob Peterson** and **Paul Hoen** are the most **important** categories of Directors with a total value of 17 (68 % of the total).
- The sum of Disney+ for all values of Directors and Year is 25.

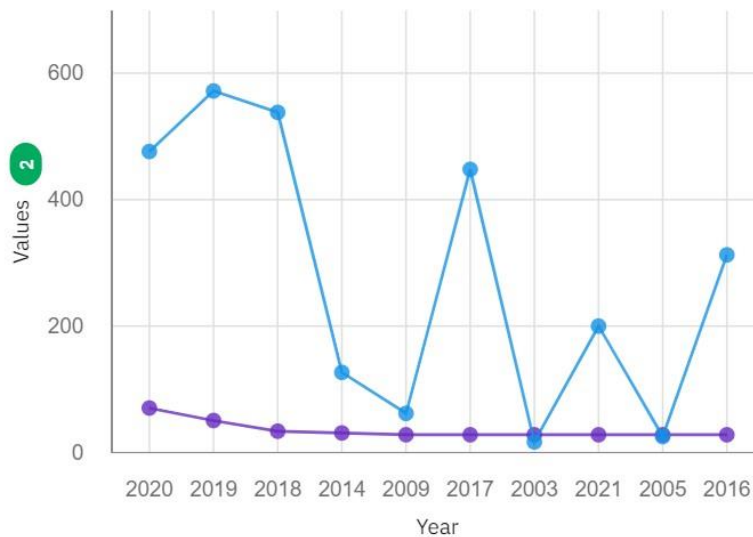


- For Disney+, **2020** is the most important category of Year with a **total value of 23** (23.7 % of the total).
- The summed values of Disney+ over all combinations of the inputs range from a minimum of 0 to a maximum of 5.
- The value of Disney+ is unusually **high** when the combinations of Year are 2020 + **45/100** and 2019 + 47/100.
- The value of Disney+ is unusually high when Year is 2020.



Netflix and Disney+ by Year

Measures  
 ● Disney+ ● Netflix

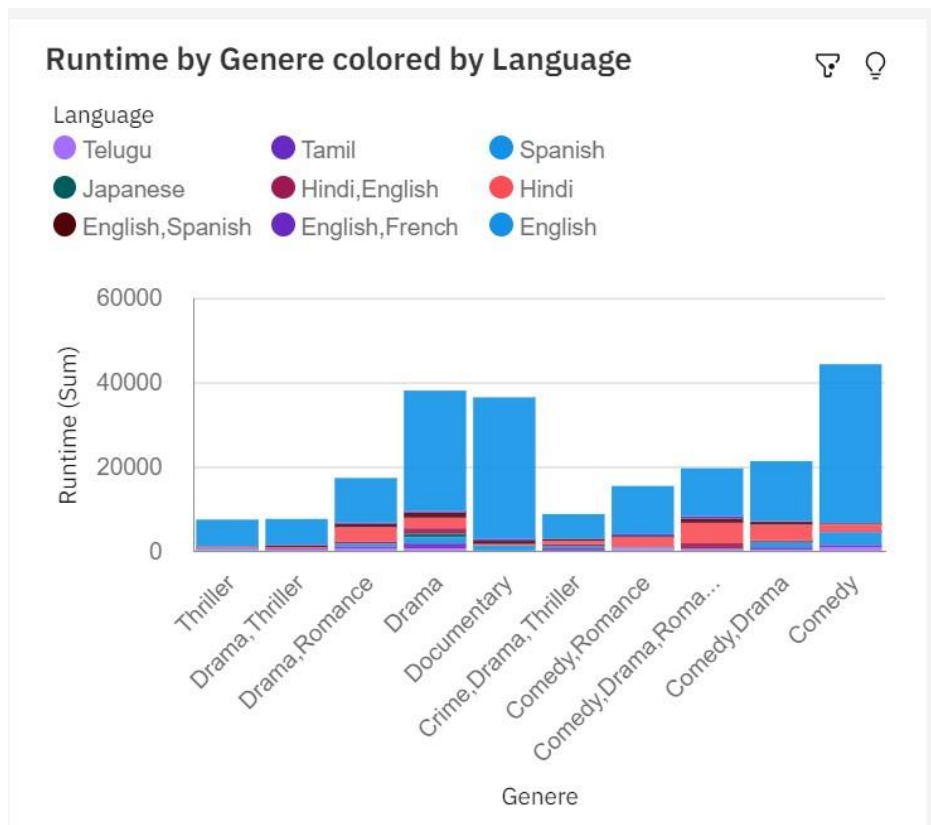


## DISNEY PLUS

- The total number of results for Disney+ for all values of Year is **5444**.
- The **average** of Disney+ for all values of Year is **0.06466**.
- 2019 (18.6 %), 2018 (17.4 %), 2020 (15.8 %), 2017 (15.3 %), and 2016 (11.8 %) are the most frequently occurring
- Categories of Year with a combined count of 4296 items (78.9 % of the total).

## NETFLIX

- The total number of results for Netflix for all values of Year is **5444**.
- The **average** of Netflix for all values of Year is **0.5116**.



- The sum of **Runtime** for all values of **Genre** and **Language** is **215,500**.
- For Runtime, **Comedy**, **Drama**, and **Documentary** are the most **important** categories of **Genre** with a total value
- of **118,592** (55 % of the total).
- For Runtime, **English** is the most **important** category of **Language** with a total value of **165,971** (77 % of the total).
- The summed values of Runtime over all combinations of the inputs range from a minimum of 88 to a maximum
- of 37,683.
- The value of Runtime is **unusually high** when the **combinations** of Genre and Language are **Comedy + English**, **Documentary + English** and **Drama + English**.
- The value of Runtime is unusually **high** when **Language** is **English**.

- The value of Runtime is unusually high when Genre is Comedy.

# Conclusion

- Netflix has the highest number of movies compared to other OTT platforms • The most liked genre is Comedy.
- Thereby, the OTT platform which provides movies or series based on the Comedy genre will conquer.
- Disney+ is a great choice for the genre comedy in the 7+ age category.
- Amazon prime has limited movies but covers all kinds of age categories and languages.
- The overall analysis concludes that Netflix is the best platform as it covers the age, languages and genres desired by the public.