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LSD7004M

COMMUNICATING INSIGHT WITH DATA VISUALISATION

A Case Study with Netflix Dataset

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Introduction

Data visualisation transforms complex datasets into visually understandable formats such as charts, maps videos etc enabling clearer interpretation and revealing hidden patterns, trends, and outliers that would otherwise go unnoticed (Huang et al. 2023).

Netflix provides on demand streaming services to the millions of subscribers worldwide in the comfort of their homes. It was founded in 1997, and has grown from a DVD rental service into a global household name, providing instant access to an extensive library of movies and TV shows.

Netflix collects data from user's engagement with its website, processed and visualised the data to understand audience preferences, optimize content delivery, and enhance the overall user experience (Gomez-Uribe & Hunt, 2015).

Aim and Objectives

This study aims to analyse and communicate key findings using relevant data visualisation.

The objectives are:

1. Design clear and informative charts or graphs that accurately reflect the data and key insight.
2. Tailor visual formats (bar charts, line graphs, histograms, etc.) to suit the type and purpose of the analysis

Methodology

The following methodology was adopted:

1. Define the objective.
2. Data collection
3. Data cleaning and preparation.
4. Exploratory data analysis
5. Interpret and communication insights

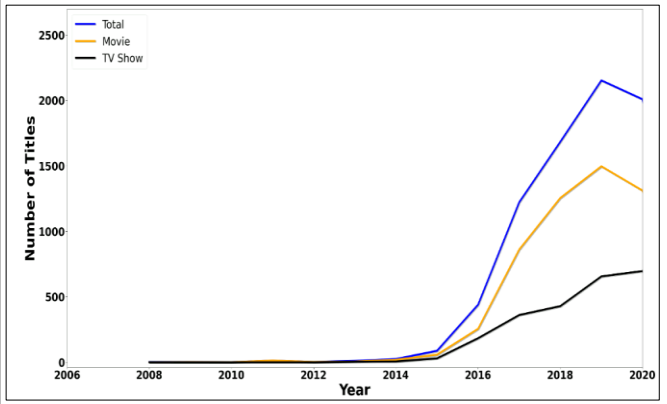

Fig 1 Netflix growth over time

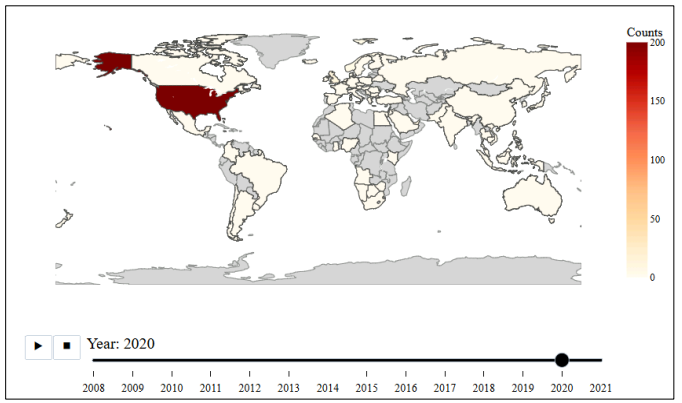

Fig 2 Netflix global spread (2020 time slice)

Key Findings

- Netflix was founded in 1997 in the United States as a mail-order DVD rental service, and continued this model until 2007, when it ventured into content streaming.
- Limited data existed before 2008, and most content additions typically occurred between October and January
- The growth from 2006 to around 2013, was modest, with a small library of movies and TV shows Fig 1.
- International expansion began with the launch in Canada in 2010 and later in the UK and Ireland in 2012.
- A major shift occurred in 2013 with the release of House of Cards, Netflix's first original production, marking its evolution from a content distributor to a content creator, triggering a significant increase in content additions Fig 1.
- Movies remained the dominant content type, comprising 69.1% of titles, while TV shows accounted for 30.9% and grew at a slower pace Fig 3.
- Another significant surge occurred in 2015, driven by Netflix's launch in Australia, New Zealand, and Japan, along with the introduction of audio description features to enhance accessibility Fig 1.

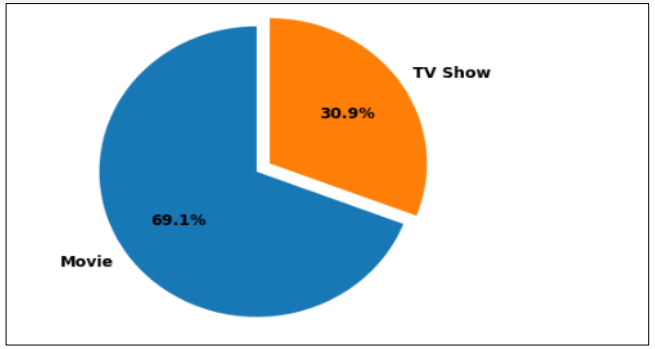

Fig 3 Percentage of content type

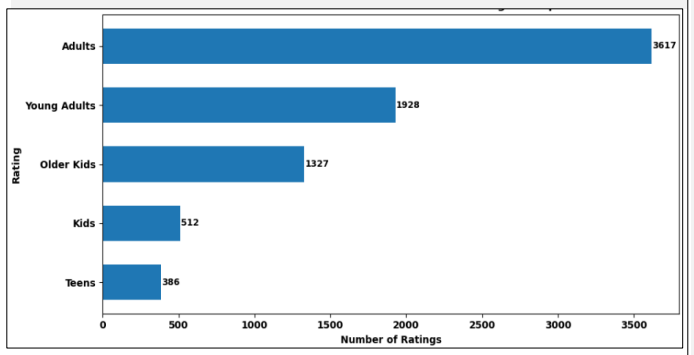

Fig 4 Number of ratings of contents

- In 2016, the debut of original kids' programme continued the upward trend in content growth.
- Adult content dominates with 3617 shows, followed by young adults (1928), older kids (1327), kids (512), and teens (366) Fig 4.
- By 2020, Netflix had become a global name, with the United States as the top contributor, adding over 200 titles that year Fig 2.
- Movie availability shows the longest average in Egypt and India while Spain, Mexico, and Canada experience the shortest delays. But TV shows become available quickly in South Korea
- The COVID-19 pandemic in 2020 disrupted global film and TV production, leading to a noticeable dip in the number of new titles added.

Conclusion

Netflix evolved from a DVD rental service into a global streaming powerhouse, driven by key strategic decisions such as its transition to streaming, international expansion, and the introduction of original content. Content additions peaked in 2017, with movies centred around adult contents dominating the platform. Seasonal surges in new titles are most common between October and January, with the United States contributing the majority of the content

References

Huang, X., Li, X. and Yao, J., 2023. *Investigating the role of visual storytelling in enhancing audience engagement in digital journalism*. *MEDAAD*, 2023, pp.10–17. doi:10.70470/MEDAAD/2023/002.

Gómez-Uribe, C.A. and Hunt, N., 2015. The Netflix recommender system: Algorithms, business value, and innovation. ACM Transactions on Management Informa-tion Systems, 6(4), pp.1–19. doi.org/10.1145/2843948