

Project Report For CS 210 Fall 2023 Sabanci University

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Project:

Does watching series rather than movies on Netflix increase our screentime?

Motivation:

Main motivation for me to make this project is to understand our Netflix consumption behavior. My hypothesis is that watching series instead of films increases our screentime. As we all know nowadays lots of people are using subscription based entertainment services to spend time. Main reason people go for subscription based services can be narrowed to two specific points: no advertisements and no need to wait for the episode. As this business model eliminates wait time for reaching an episode or a movie from my point of view it also increases the time spent in front of the screen due to no need to wait to watch a movie or a series as they are readily available in large quantities and you can watch anything back to back without getting interrupted. There is also another question here and my main aim is to answer this question, does watching series rather than movies on Netflix increase our screentime. From my perspective it does increase our screentime to watch series instead of movies due to watching episodes back to back due to our curiosity as in series a plot can take quite a high number of episodes to conclude which will keep us watching. For this analysis I will be using Netflix as it is one of the most popular subscription based entertainment services and I also have enough viewing history there to analyze. Aim of this project is to analyze my Netflix viewing history in order to understand whether watching series or films have an impact on the time spent watching netflix and make predictions for future consumption habits.

Data Source:

Data is my Netflix viewing history but as Netflix does not give a clear divided dataset to use ,and they give unrelated content in unrelated classifications, for their regular subscribers firstly I had to use some of excels built in data text to column features in order to be able to use the dataset. This process should not happen in a

dataset destined to be analyzed unlike this list as Netflix provides this list just to let people see what they have watched during their subscription period. Also needed average length for a movie and episode of a series so I took that two specific data from the internet, which are average lengths of an episode of a series and average length of a film which are forty two minutes for episode according to medium.com and one hundred and thirty one minutes for films according to digitalcenter.org, and I will add those two sites as APA compliant citations to my references section.

Data Analysis:

Here are the techniques i used all throughout this project:

Data Cleaning and Preprocessing:

- Renamed columns for clarity.

- Converted date formats and handled missing values.

Descriptive Statistics:

- Calculated total episodes and films watched.

- Derived average episodes and films per day.

- Calculated average time spent on series and films.

Data Visualization:

- Visualized data using bar charts and line plots.

- Explored trends over time and compared averages.

Time Series Analysis:

- Applied time series analysis by resampling data on a monthly basis.

- Examined trends in the number of episodes and films watched each month.

Machine Learning (Linear Regression):

- Utilized linear regression to make predictions about future episodes and films based on historical data.

Statistical Analysis:

Made assumptions and calculated the possible expected time spent on series and films.

ChatGPT:

Used all through the project as it is encouraged. Here is my chat log link:

<https://chat.openai.com/share/abe01d52-5530-4e5e-8891-e91dae78d38c>

Findings:

Here are my numerical findings during my Netflix viewing history period. I watched an average of 10.13 episodes per day and an average of 1.18 films per day. While watching like this I spent an average of seven hours and five minutes per day when I watched series and I spent an average of three hours and 14 minutes per day when watching films. So when I watched series instead of watching films I spent three hours and fifty minutes more on average. But it should not be forgotten that these statistics are for the days when I watched something and the days I did not use Netflix are not in these calculations. By using linear regression now including my whole subscription period I watched approximately twenty episodes per month and less than one film per month. And by using the same technique I watched approximately one episode per day and did not watch a film on an average day. Even though this numbers seem odd it should not be forgotten that i took long breaks during watching periods so all these could have watched in different pattern so this proves my hypothesis as watching series makes us watch more and more compared to watching films as all these calculations state that i watched more than ten episode per day and if i watched a movie it won't be more than one which results me total of three hours and fifty minutes more spent behind the screen and according to model its estimated film number was less than 1 daily and i did not watch a film everyday what i have done with films was acceptable but if we look at the series part model predicted one episode per day would be fine to watch all the stuff i watched rather than watching ten episodes and then not watching anything for a period of time and this also prove my hypothesis.

Limitations And Future Work:

Main limitation of this project was not having enough data to analyze as i was instructed to use my own data only so for future work a study featuring much more data will be more accurate and will be better to test hypothesis and get to a conclusion.

References(APA):

This year's movies are longer than ever. Center for the Digital Future. (2023, July 19).

<https://www.digitalcenter.org/columns/cole-movie-length-2/#:~:text=By%202001%2C%20the%20average%20was,for%20combining%20quality%20with%20success.>

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