# Project Report on Capstone Project (Netflix)

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# **Problem Statement**

- Customer Behaviour and its prediction lies at the core of every Business Model. From Stock Exchange, e-Commerce and Automobile to even Presidential Elections, predictions serve a great purpose. Most of these predictions are based on the data available about a person's activity either online or in-person.
- Recommendation Engines are the much-needed manifestations of the desired Predictability of User Activity. Recommendation Engines move one step further and not only give information but put forth strategies to further increase users' interaction with the platform.
- In today's world OTT platform and Streaming Services have taken up a big chunk in the Retail and Entertainment industry. Organizations like Netflix, Amazon etc. analyse User Activity Pattern's and suggest products that better suit the user needs and choices.
- For the purpose of this Project, we will be creating one such Recommendation Engine from the ground-up, where every single user, based on their area of interest and ratings, would be recommended a list of movies that are best suited for them.

# **Project Objective**

When it first opened, Netflix was purely a movie rental service. Users ordered movies on the Netflix website, and received DVDs in the post. When they were finished with them, they would simply post them back to Netflix in the envelopes provided. At the time, this was seen as a boon to those who did not have a video rental store nearby. Today, Netflix streams movies and has more than 151 million paid subscribers in over 190 countries around the world. It offers a wide range of TV series, documentaries, and feature films across a wide variety of genres and languages, including original productions.

Marc Randolph is a veteran Silicon Valley entrepreneur, advisor, and investor. As co-founder and founding CEO of Netflix, he laid much of the groundwork for a service that's grown to 150 million subscribers and fundamentally altered how the world experiences media.

- 1. Find out the list of most popular and liked genre
- 2. Create Model that finds the best suited Movie for one user in every genre.
- 3. Find what Genre Movies have received the best and worst ratings based on User Rating.

# **Data Description**

Netflix was first founded in August of 1997 by two serial entrepreneurs, Marc Randolph, and Reed Hastings. The company began out in Scott's Valley, California, and has grown to become one of the world's leading internet entertainment platforms. When it first opened, Netflix was purely a movie rental service. Users ordered movies on the Netflix website, and received DVDs in the post. When they were finished with them, they would simply post them back to Netflix in the envelopes provided. At the time, this was seen as a boon to those who did not have a video rental store nearby. Today, Netflix streams movies and has more than 151 million paid subscribers in over 190 countries around the world. It offers a wide range of TV series, documentaries, and feature films across a wide variety of genres and languages, including original productions.

- **1.ID**—Contains the separate keys for customer and movies.
- **2.Rating**—A section contains the user ratings for all the movies.
- **3.Genre**–Highlights the category of the movie.
- **4.Movie Name**—Name of the movie with respect to the movie id.

# Data Pre-processing Steps and Inspiration

Reed Hastings co-founded Netflix in 1997. He was an entrepreneur who in 1991 had founded Pure Software, which made tools for software developers. After a 1995 IPO and several acquisitions, Pure was acquired by Rational Software in 1997. Hastings received a BA from Bowdoin College in 1983 and an MSCS in artificial intelligence from Stanford University in 1988. Between Bowdoin and Stanford, he served in the Peace Corps as a high school math teacher in Swaziland. Today, he is an active educational philanthropist, having served on the California State Board of Education and on the board of several educational organizations.

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# **Choosing the Algorithm for the Project**

The platform has advanced to streaming technologies that have elevated and improved Netflix's overall business structure and revenue. The platform gives viewers the ability to stream and watch a variety of TV shows, movies, documentaries through its software applications. Since Netflix converted to a streaming platform, it is the world's seventh-largest Internet company by revenue.

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# Motivation and Reasons for Choosing the Algorithm

In less than 4 years, Netflix has gathered a major share of the Indian market. Today a majority of households in India subscribe to Netflix, and that number is expected to rise this year and further the years to come. The product is designed so well, that you remain engrossed in the content they deliver. They adopted top digital marketing strategies. Consult the best brand activation agencies. Further, let's talk about a few of the digital marketing principles that Netflix has successfully implemented to gather customers.

Netflix has designed its website with a user-friendly interface which allows customers to rate TV shows and movies, which then goes through Netflix's algorithm to recommend more content they might enjoy. With the onsite optimization for the website, they have optimized each and every page for enhanced customer experience. To easily get in the minds of customers, they have optimized their website for content by title, by an actor's name, or even by a director's name. By leveraging the best website development services, they added a host of personalisation features to their website with clean looks no matter which platform you are using.

Netflix tapped on email marketing techniques as a part of their digital marketing strategy and as a key component of customer onboarding and nurturing. New Netflix customers receive a series of emails that make content recommendations and encourage new users to explore the platform. Netflix marketers invest hours in building creative email marketing campaigns designed to engage and delight recipients. With the help of best email marketing services, they continue to enhance the experience of the customers.

# **Model Evaluation and Techniques**

Netflix makes use of search engine optimization services for the sake of improving organic research and establishing their brand presence. The brand aimed at best search engine optimization services to drive the traffic organically and adopted both on-page and off-page SEO strategies. They optimized their content with potential keywords that show up high in search results. They also tapped the strategy of International SEO to gain organic leads from the worldwide stage. Through creative social media optimization strategies Netflix has garnered more than 61 million Facebook followers. In just one year, the brand added 11 million followers to its account. Netflix posts nearly 90% videos and rest images. Videos featured on Netflix's. Facebook page are typically clips from interviews with the actors from the upcoming movies, clips from the upcoming movies and TV shows, offering audiences a sneak peek into what's in store for them. Besides videos, the OTT platforms share images, GIFs, funny memes, simple text posts featuring questions about current movies and TV shows.

Netflix carries 19 million followers. The majority of Netflix's posts on Instagram are images, post scenes from TV shows featuring engaging captions to get a conversation going, and behind the scenes clips and interviews with actors. A recent video featured a behind-the-scenes bloopers video from the set of Stranger Things, which garnered 1.2 million views and almost 3,000 comments. Netflix uses a simple approach to posting, with most posts not featuring any hashtags at all.

#### Inferences from the Same

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# Future Possibilities of the Project

Netflix's new campaign uses spoilers of its most popular shows, including Stranger Things, Money Heist and Narcos, to promote social distancing amid the COVID-19 crisis, and while the effort is getting a lot of buzz, it's a fake.

To launch season four of the political drama House of Cards, Netflix worked with BBH New York and built a fake presidential campaign around the show's lead character Frank Underwood. The campaign became the top trending topic on Facebook and Twitter during the debate, and it won a Grand Prix in the Integrated category at Cannes in 2016.

The streaming company wanted to advertise Narcos Mexico in Thailand. Netflix worked with JWT Bangkok and cut around the offending images within each scene, leaving a clear enough outline that anyone could still identify what had been removed. The campaign achieved the opposite effect of what censorship is supposed to do by reaching 34 million people.

Since social media is a hot favourite in recent years, Netflix's social media team uses it intelligently to grab attention and arouse curiosity. Their social media team does not even give money to sponsored posts. Still, instead, they create original and charming posts to share, which is getting viral and widespread among social media users. Thanks to Netflix's social media strategy within a creative and strategic approach, people are encouraged to talk about Netflix and the content below posts. Their social media team asks questions and creates polls stimulating users or fans to continue the casual conversation that places Netflix in trending topics.

# **Conclusion**

With the advances of exclusive campaigns and cooperation agreements with several institutions and companies, Netflix has the world at its feet. Regarding Netflix's digital campaigns, we can say that they meet the members of the target audience wherever they live and whenever they want. Netflix collaborates with a great number of companies and applications such as banks, Snapchat, and Instagram with multi-channel campaigns. For example, if you have an account on a bank that is a business partner of Netflix, you can get a 50% discount for Netflix. They create photo effects on Snapchat and Instagram for the users on those applications. They also use e-mail marketing to promote their content. You can also try Netflix free for 30 days! After signing up, if you do not enjoy you can cancel your membership in 30 days without payment. If you would like to continue watching, do nothing, and your membership will automatically continue until you do not want to remain as a user. There is no cancellation fee, commitment, or contract.

Their team knows how to keep you engaged on Netflix with a personalized interface. After you spend some time on Netflix and watch something, they suggest you some more related ones according to what you have been watching with the help of their data-driven system. The content on your home page is totally personalized for you. In this way, you can find more TV series, documentaries, or movies in which you are likely to be interested. In this way, Netflix offers you a unique user experience on its platform. They even do it on their social media accounts.