

Recommendation System For a Streaming Service Provider

How taking personalization to the next level by introducing an ML-powered recommendation engine allowed a European streaming provider to upsurge the number of their premium subscribers **by a third** in just six months.

Domain:
Media and Telecommunications

Duration:
6 months

Team:
BE Team, FE Team, QA Team, Data Scientist, SA, BA, UX/UI Designer, PM

Challenge

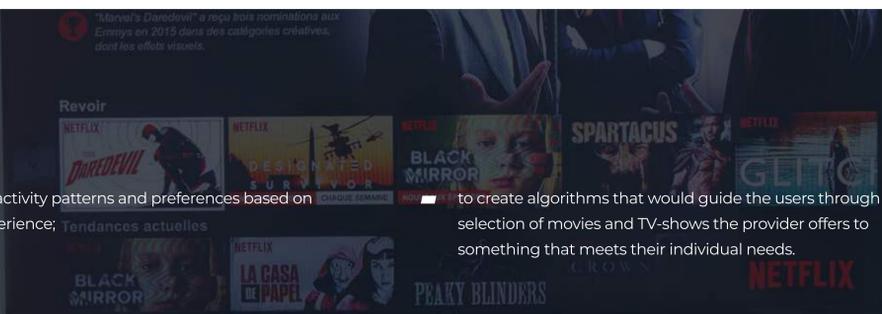
Navigating through an endless stream of options is insanely difficult and time-consuming. Being far too jaded, people are unlikely to pay attention to anything that doesn't captivate them instantly. This gives entertainment businesses a hard time when 'living up to expectations' and 'anticipating the desires' are not just advertising overstatements but a real must.

Our customer understood that the only way to make their subscribers keep using the service is to whip up their interest by offering the content which appeals specifically to them.

As quality and taste are barely the same things, one-size-fits-all recommendation services seemed useless and even harmful - a couple of mistakes are enough to lose a subscriber. That's why it was decided to create a system that would provide users with recommendations tailored to each individual.

Task

- to identify users' activity patterns and preferences based on their viewing experience;
- to create algorithms that would guide the users through a vast selection of movies and TV-shows the provider offers to something that meets their individual needs.



Solution

How to deal with giving worthwhile recommendations to millions of subscribers? The answer is machine learning (ML) and algorithms.

*instinctools team has developed a system that learns from its users. It processes users' data, for instance, the genre of a program a user is watching and adapts recommendations to his or her contemporary viewing habits.

An ML model identifies viewers' preferences, using the statistics of their content consumption. It is based on particular algorithms - sets of databased instructions - that tell the service which content to offer.

We've also applied a collaborative filtering mechanism to our solution. It means that each viewer fits into certain taste groups, which are identified by plenty of factors coming together (the number of views, genre peculiarities, etc.), and this influences what recommendations are displayed. If a user's viewing patterns are similar to another user, the system will give recommendations based on the behavior of that other user as well.

Value

The problem of choosing what to watch is no longer relevant. The system that we've made can sustain not only users' current interests but also the evolution of their tastes.

The trick is that now the viewers can find captivating shows that they might not have initially thought of watching. As long as there's no chance for the users to get bored they'll hardly stop bingeing and cancel the subscription.

Furthermore, the number of subscribers is constantly increasing as people want to pay for TV-shows and movies that 'fit in' their vision of great content and not waste money - not to say time - on something that doesn't.



Technologies



Python



Flask



MySQL



ML libraries

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