

What users will stay with C more?

Background:

TV4 Media, as one of the Nordic region's biggest television companies, is making great digitalization efforts, particularly when it comes to customer care. Within TV4 Media we have the company C More which sells subscriptions ie. sports package, film package, etc. The allows C More users to choose from thousands of assets, such as films and television series, which generate a lot of views every day. One of C More's KPI, key performance index, for the customer care department is related to achieving the goal of having happy customers so that they renew their subscription.

Our customer care team is constantly monitoring user behavior, addressing customer needs, and communicating the appropriate actions to resolve customer problems. This helps prevent customers from leaving our service (customer churn). However, the customer team is lacking an automated way of determining which customers have a high risk of leaving the service.

Problem

We, the data team, will try to assist the customers care team in determining which users are at high risk of leaving the service. Currently, the data team has access to a collection of streaming and CRM, Customer Relation Management system, data which is available in BigQuery (a Google Cloud Platform product). The data consists of assets users have viewed, how many minutes they viewed those assets, and the subscription plan they have purchased. The data is collected daily.

Task

Your objective is to create a solution which can accurately predict which users will stay or leave, churn, the C More service based on customer behavior.

- How would you do this? (please present your work in code in a notebook such as Jupyter Notebook, R script or notebook, etc.)
- Imagine that your solution works well, and your solution was put into production. Please describe in text or a diagram how you would deploy your solution.

Field	Descriptions
ID	ID for each users
PRODUCT	Subscription plan type (these are encoded into integers)
TENURE	Lifetime of user's subscription
CHURN_FLAG	1=Did Not Churn, 0=Churned
AVG_PLAY_120	Average consumption per day in the last 120 days for all categories of media
AVG_PLAY_90	Average consumption per day in the last 90 days for all categories of media
SERIES_AVG_PLAY_LAST_120	Average consumption per day in the last 120 days for series media, such as Big Bang Theory or Gåsmamman
SERIES_AVG_PLAY_LAST_90	Average consumption per day in the last 90 days for series media, such as Big Bang Theory or Gåsmamman
FILM_AVG_PLAY_LAST_120	Average consumption per day in the last 120 days for film media, such as Good Will Hunting or Beck
FILM_AVG_PLAY_LAST_90	Average consumption per day in the last 90 days for film media, such as Good Will Hunting or Beck