

Content Personalization at Turkish Telecom Firm

Business Problem

Client provides IPTV services to its customer base. The current number of subscribers is around 1.5M, and it is increasing fast (the number of potential IPTV customers is around 16m). Offered content includes movies and TV services. The current number of distinct offers is close to 10K. The goal is to increase the number of purchases. A further goal down the path is to match potential ads with content and viewer profiles. The business is new, but the client has decided to incorporate analytics from the outset. The unstated goal is to become the NetFlix of Turkey in regards to usage of information to formulate marketing strategies.

Business Solution

Client has demographics data and historical viewing data of its customers. The proposed solution is to build a personalization system of that will use historical data to learn viewing patterns of customers, and provide an optimal set of recommendations incorporating customer behavior, customer demographics, and temporal dependence.

Business Results

System is in implementation stage

Intelligence

Collaborative filtering algorithms will be employed for building the personalization system. Three different sets of algorithms are used to create an ensemble prediction system: Item-to-item CF algorithms, time dependent matrix factorization, and additive modelling with regularization. Models will be trained over historical viewing data and customer demographics. Temporal variability of preferences will be incorporated. Cold-start scenarios (for customers, and content), rare-content scenarios will be incorporated.

Speed

Model parameters and recommendations will be updated on a daily basis with batch computations.

Scale

The number of models maintained will scale with the number of offers that is currently around 10K

Automation

System is fully automated.

Adaptivity

Models are adaptive in the sense that, they adapt to changing preferences of its customers. This is achieved by frequent modelling with the addition of fresh incoming data.