

CASE STUDY

Behavioral Online Ad Targeting

Objective

Targeting online users based on their propensity to visit categories of websites

Client

Pioneer in online advertising solutions

Benefits

Enabled clients to reach target online audiences and increasing campaign effectiveness by ensuring that the right ad is shown to the right person

Project Objective

To develop a statistical model to calculate the likelihood of an Internet user visiting a particular category of websites enabling targeted online advertising.

Client

Pioneer of online ad targeting specializing in providing innovative performance-based online media solutions for response-driven marketers, advertisers and publishers.

Approach

User web traversal data was analyzed to identify the user's interests and preferences in the type of information he/she looked for on the Internet. This information was combined with categorical information available about websites from secondary data sources to calculate the likelihood function of both the websites and users. This likelihood function i.e. affinity value, was calculated on the basis of the affinity for a site to belong to a particular category on the basis of a category quotient (A category quotient quantifies its proximity to a model website in a particular category). The model is based on advanced finite mixture models to calculate its likelihood function.

Solution

The model identified users with positive affinity values as more likely candidates for visiting a particular category of websites; as compared to zero or no affinity values. It takes into consideration the typical duration of browsing sessions, the time-varying propensity of users to visit a particular category of websites and also identifies typical web traversal sequences that allow preemptive ad targeting. A scalable system was designed for handling data for 1 million users on a daily basis (25 GB/day). The entire solution is implemented as a fully automated system using remote processing on the client end.

Benefits

There was a significant increase in the Click-Through-Rates (CTR) for the advertising campaigns managed by our client for its customers resulting in greater return on investments for its customers.

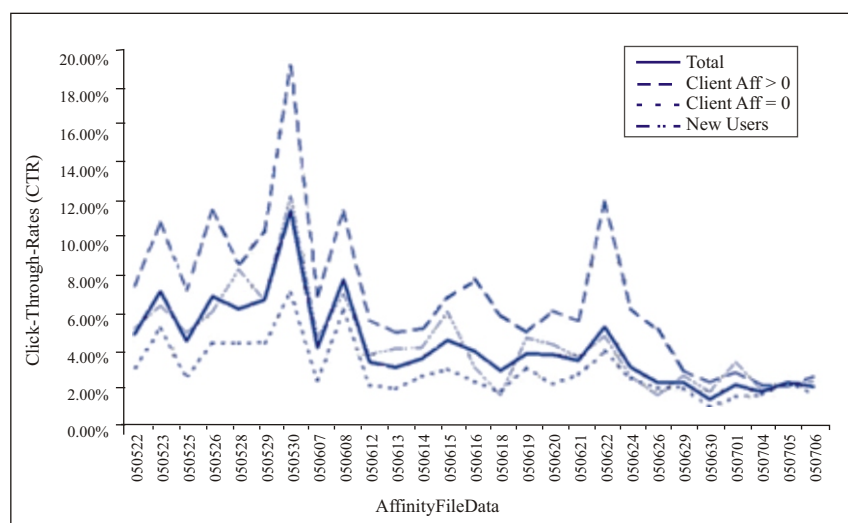
Other Case Studies

➤ **Churn Prediction:** Preemptive identification of customer churn thereby guiding customer retention activities

➤ **Demographic Ad Targeting Online Ad Targeting:** using Demographic knowledge

Cluster	No of Users	No of Clicks	Clicks / Users
Affinity >	27,154	2,257	8.31%
Affinity <	57,553	1,969	3.42%
Mixed	23,046	953	4.14%

CTR for the users categorized by the model



CTR comparison (Unique Users)