

CASE STUDY

Demographic Ad Targeting

► Objective
Targeting Internet users by their demography based online behavior

► Client
Pioneer in online advertising solutions

► Benefits
Improved effectiveness of online ad campaigns by ensuring high visibility among target demographic audiences

Project Objective

To develop a statistical model to estimate the demographic profiles of websites for enabling accurate audience targeting.

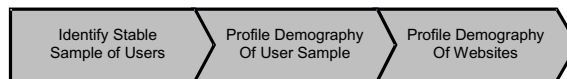
Client

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

Approach

The modeling process was executed in three phases:

- 1) Identifying a stable sample of users who exhibit sufficient and regular activity. These users and their web traversal data will be used for estimating the demographic profiles of websites.
- 2) Demographic profiling of the users belonging to the stable sample using a set of skewed websites (both age and gender) using a secondary data source.
- 3) Demographic profiling of websites visited by a statistically sufficient number of profiled users at day of the week and day-part granularity



Approach for developing Demography Identification Model

Other Case Studies

- ↳ Profitability Analysis for Mortgage Lenders: *Identify focus areas for client to ensure maximum profitability*
- ↳ Behavioral Online Ad Targeting: *Targeting online users based on their propensity to visit categories of websites*
- ↳ Churn Prediction: *Preemptive identification of customer churn thereby guiding customer retention activities*

Solution

The model calculated the skewness of traffic visiting a particular website for a particular day and day-part combination.

Select Months									
	Feb-05	Mar-05	Apr-05	May-05	June-05	Jul-05	Aug-05	Sep-05	Oct-05
Select Days									
Weekdays	Weekends	Mon	Tue	Wed	Thu	Fri	Sat	Sun	
MALE Age Groups					FEMALE Age Groups				
Day Parts	<15	15-25	26-40	40+	<15	15-25	26-40	40+	
1:00- 2:00									
2:00- 3:00									
3:00- 4:00									
22:00-23:00									
23:00- 24:00									

Sample demographic model output for a website

The model output was used to answer questions like:

- 1) What is the age and gender profile of a particular website on a particular time of the day.
- 2) A client wants to buy one million impressions to be targeted at 'Males between 26 to 40 years of age' over next 60 days. What websites will be the most appropriate?
- 3) Given the following requirement of audiences for next three months, what are the best sites to buy?
- 4) Given our existing inventory of media bought, what kind of surplus audience we have on hand?

The model output was accessed by the client's ad-serving engine for targeting audiences. Web history data for approx 1 million users was processed on a daily basis using a scalable architecture

Benefits

The client was able to improve the effectiveness of online ad campaigns by ensuring that online ads were placed on appropriate websites based on target audience.