

# Select audiences likely to convert using analytics and machine learning

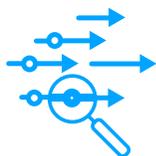
SAS® Customer Intelligence 360 for analytical targeting



Organically uncover hidden audience conversion insights



Enable end-to-end automation of model operations and workflows



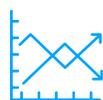
Identify attractive audience segments and include them in customer journey activities

## The Issue

Personalizing the content that customers and prospects see online is vital to driving higher sales, differentiating customer experiences and keeping customers coming back. But too often, movement from data management to analytical evaluation to decision delivery is slow, disjointed and ineffective, making it challenging to drive personalization with analytically driven targeting. Marketers need more efficient and effective ways of delivering personalized recommendations, including ways to:

- **Perform data exploration, feature preprocessing, engineering, selection and hyperparameter tuning** in an end-to-end, automated fashion.
- **Run champion-challenger pipeline modeling tournaments** against selected data using decision trees, generalized linear modeling (GLM), logistic regressions, neural networks, random forests, gradient boosting and ensemble models.
- **Rank results** automatically to identify the most attractive segments and subsegments and then surface them for easy selection and incorporation into customer journey activities.

## The Challenge



**Limitations of business rules-based marketing.** Business rules-based filtering and suppressions can only take marketing metrics so far. Using if-then conditional logic to filter out irrelevant customers will achieve better conversion rates, but it can result in unrealized potential customer conversions. Marketers need a way to optimize efficiency and total conversions - not sacrifice one for the other.



**Data science and machine learning complexities.** Not every organization has the luxury of having full data science or customer analytics teams. With analytical targeting from SAS Customer Intelligence 360, marketers can implement an additional layer of machine-learning based targeting refinement to identify customers who surpass a conversion likelihood threshold.



**Keeping analytical models fresh.** Managing models can be a time-consuming process - from wrangling and preparing data to model deployment to creating business value. Deploying models and managing model performance is a real challenge, and when tasks aren't done in a timely fashion, it can lead to decaying models and suboptimal insights.

## Our Approach

SAS joins marketing elements together into a cohesive, efficient tool for targeting content delivery. Analytical targeting from SAS Customer Intelligence 360 enables marketers to choose consumers based on targeting criteria and likelihood scoring. Consumers who meet these criteria and interact with a given brand's digital properties will automatically receive targeted content.

Every time customers or prospects see targeted content and receive an impression, their interactions are captured and measured against a conversion goal. Our solution continually collects impressions and interactions to reassess which visitors to include or exclude from the process.

As the solution collects data, the model training and analytical scoring process begins, from creating the data set and assigning variables to executing champion-challenger modeling tournaments. Once this is complete, model scores are applied to all new control group and returning consumers. Those who surpass the model threshold will receive targeted content across digital properties. Consumers who fall below the threshold will not see the targeted content.

## SAS® Difference

As marketing systems scale to match business goals, the amount of data they must collect and analyze to meet them can become unmanageable. SAS collects data and simplifies analytic processing at every step by automating:

- Data collection.
- Analytic modeling table creation.
- Variable selection.
- Model tournament creation and execution.
- Champion model selection.
- Conversion propensity scoring.

The result is highly accurate and optimized targeting - all while saving time, money and resources from a digital marketing perspective. In addition, analytical targeting from SAS Customer Intelligence 360 improves marketing metrics for efficiency and conversions while reducing the costs of targeting uninterested end consumers.

SAS automates the data ops and model ops processes so users can start quickly, avoid classic modeling problems (such as modeling decay) and quickly realize the value that machine learning for analytical marketing can provide.



Learn more at [sas.com/ci](https://sas.com/ci).

