# TAKING THE GUESSWORK OUT OF AUDIENCE TARGETING

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The era of using primary research and contextual signals alone to identify target audiences is over. With a continually evolving tech stack and mountains of data swirling in the industry, as marketers, we are in a unique position to critically reevaluate audience creation and use performance data to improve relevancy. No longer will data be used only to retroactively see how a campaign performed. It will be used to determine who should receive that campaign in the first place by predicting which channels and brand messages are most relevant to a customer. These predictions will ultimately drive greater sales lift than traditional targeting tactics — grounding our targeting in purchase behavior, propensity to engage, and science that pulls all customer dimensions together for consideration to take out the guesswork.

At the launch of the Kroger Plus Card in 2001, Kroger began to use shopper data in new ways to improve the customer experience. However, it wasn't until the launch of Kroger Precision Marketing in October 2017 that 84.51° began harnessing the power of longitudinal data and machine learning to optimize marketing campaigns at scale. Over a year and a half, we have compiled a historical performance database and used that data, alongside behavioral data, to build target audiences. By leveraging machine learning and data models, KPM campaigns uniquely consider advertiser objectives, UPCs, time of communication, budget, and past performance by household within each marketing channel to prioritize customers based on predicted lift. In short: audiences are now pre-optimized to meet advertiser objectives.

If you are not sitting on mountains of data, do not be disheartened. With a greater focus on how to leverage data to sharpen your marketing communications, these 5 steps will have you well on your way to targeting customers more effectively over time.

## 1 BEGIN TO BUILD A DATA REPOSITORY.

**a.** Track who your customers are, what communications they are receiving on which channels, and which products/campaigns resonate with them.

**b.** Although we have 18 years of Kroger Plus Card data, we only began tracking households' performance against KPM campaigns a year and a half ago — it's never too late to start.

**18 YEARS** OF KROGER PLUS CARD DATA

**1.5 YEARS** OF TRACKING HOUSEHOLDS' PERFORMANCE AGAINST KPM CAMPAIGNS

## 2 ANALYZE YOUR CUSTOMER BASE AND LEARN EVERYTHING YOU CAN ABOUT THEM.

**a.** Feed all the segmentation work and customer attributes you've collected over time into this repository. These dimensions of the customer will make the model smarter over time, the more it learns about your customers. Identify gaps in knowledge about your customers and prioritize which datapoints are most useful to pursue.

**b.** Over the years at 84.51°, we have collected over 2,000 variables on customers. These variables cover a variety of customer dimensions, including, but not limited to: customer segmentations, purchase data, demographics, coupon/digital engagement, campaign engagement across channels, etc. This rich data is what makes our models as effective as they are, so don't miss this important step!

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**CUSTOMER SEGMENTATIONS, PURCHASE DATA, DEMOGRAPHICS, COUPON/DIGITAL ENGAGEMENT, CAMPAIGN ENGAGEMENT ACROSS CHANNELS**

## 3 CHOOSE A MACHINE LEARNING MODEL AND BEGIN FEEDING DATA INTO IT.

**a.** This is where marketers need to begin partnering closely with their Data Science & Insights teams... The model building process is the most important, as it is what weaves together all data points to return a recommendation. You will need enough data to form three different modelling groups: a group for training, a group for model validation, and a holdout group. The training observations are used to build your model. In other words, these data inform the model which attributes about the household or product are predictive. The validation observations help to identify which model or version of a model is best, by giving you a set of unseen data on which to evaluate the accuracy of each model. Once you finalize your model, use it to predict the response of your holdout group. How accurately the model predicts on this last group of data informs you on how well the model will generalize to the unseen data you are trying to predict going forward.

**b.** When selecting which model to use, we decided to not rely only on the error metric, but instead we built a custom evaluation formula that also takes into consideration some of our business criteria. Our final formula includes the number of predictors, the ability to rank households, as well as error. The models we use are not proprietary to 84.51°, but we do leverage cutting edge machine learning techniques, including gradient boosting trees, neural nets, and other algorithms.

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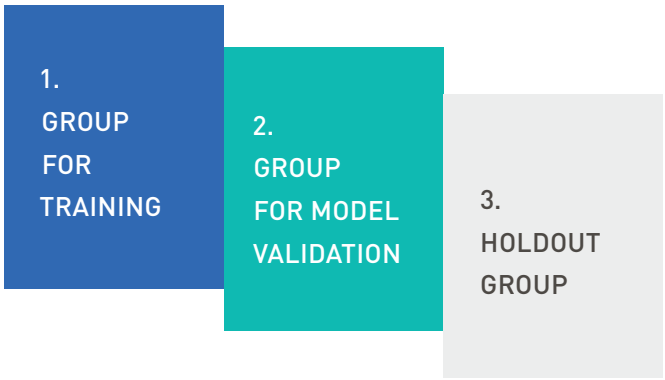

## 4 OPTIMIZE AND FINE TUNE BASED ON YOUR MODEL OBSERVATIONS.

**a.** This is where your model will continue improving over time with the more data you have available to feed it. Ensure you have the infrastructure in place to seamlessly feed data back into your models.

**b.** In this stage, we discovered that we needed to create different models by objective to ensure existing and new households were not being scored on the same criteria. We built models to score new households more granularly which helps identify the households who are best for campaigns with the objective of increasing household penetration.

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## 5 WITHHOLD A CONTROL GROUP AND MEASURE

**a.** Focus not only on the importance of upfront data used for targeting but closing the loop in data by returning how the campaign performed for each customer. This is where the algorithm will learn where it may have been wrong, and course correct to select better households the next time.

**b.** 84.51° is unique in the ability to see the full loop of marketing. While we've mentioned models a lot in this article, we're speaking about machine learning. We never model out or extrapolate our sales results based on what could have happened — our measurement is 100 percent verified.

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Our work should not stop at understanding customer segments within market research – that is just one dimension to consider. Our work should continue by partnering with Data Scientists to determine how we connect the mass of data at our fingertips and allow it to show us how to make our marketing more effective. I invite you to dispel the way targeting has always been done and explore a new way of harnessing data to remove the guesswork in targeting.