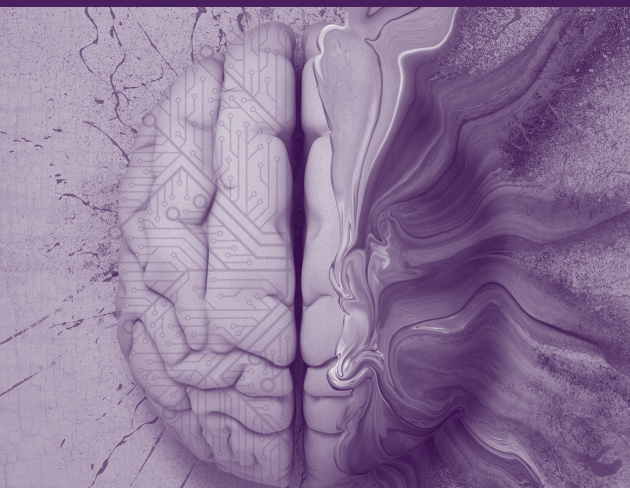# 4 Reasons to Use AI and Machine Learning for Personalized Digital Marketing

Jivox

Why Your Brand Needs Machine Learning for Personalization

Machine learning will boost digital marketing personalization and give your brand the competitive edge.

Artificial Intelligence and Machine learning technologies have been around for years, and have recently evolved into a very robust tool for marketers to uncover insights about consumer behavior in real-time by processing vast amounts of data in milliseconds. Based on this data, brands can predict and recommend products that consumers are most likely to purchase by understanding of their intent.

The Consumer Reality

Consumers' intent-rich moments happen when they turn to a device, typically a smartphone, with burning needs to research something, watch something, buy something. These in-the-moment decisions to buy can be influenced by lots of things, such as specific offers, or friends' posts on social media.

Personalization technology needs to very quickly interpret what the triggers mean in terms of consumer intent. Real-time data feeds the machine-learning algorithms. The analytics are critical to aggregating data that enable machine-learning algorithms to assemble and deliver the best advertising creative and messaging.

With machine learning-based recommendations you will:

▶ Deliver **more precise, relevant and impactful** digital marketing campaigns in real-time.

▶ Move from audience targeting to **audience engagement**.

▶ Deliver one-to-one experiences, messages and content to your customers that actually improve over time.

▶ **Accelerate conversions** and increase the efficiency of campaigns.

Many brands within the e-commerce, retail, and travel and hospitality industries are already seeing the benefits that AI and machine learning can bring to digital marketing.

Personalization Triggers

43 degrees and raining

"BUY NOW AND SAVE 25%"

"Going to Tokyo Ramen. Who's coming?"

"Check out this cool cycling jersey I got from REI."

1 Eliminate the Guesswork

Machine-learning based recommendation engines use a hybrid of content-based and collaborative filtering methods, bringing this innovation to personalized ad content.

This highly intelligent, self-learning, data-driven decisioning app helps marketers take the guesswork out of product recommendations.

Predicting Behavior

Content-based recommendations focus on product attributes, such as categories, pricing and tags. Automatic predictions about a consumer's interest is based on similar products available from the brand. For example, the Toyota Sequoia and Toyota Highlander are similar to the Toyota 4Runner, so users may also want to look at these.

Collaborative filtering is used to create clusters of audiences based on their past browsing and buying behavior. The recommendation app views products from the standpoint of a consumer's past interactions with them on websites: browsed or searched, clicked, rated and liked, saved in their virtual shopping cart, and purchased.

The behavior of these clusters determines ad content recommendations. For example, you've most likely seen this phrase while shopping online: *"People like you who bought X also bought Y."*

Machine learning frees you from the guesswork. It can predict your customer's path to purchase, allowing you to intelligently serve more precise and relevant messages.

2 Don't Miss Another Opportunity

This data-driven technology is different from traditional recommendation engines, which operate in batch mode. By the time product recommendations have been processed, the user is no longer in the market for that product or service.

Machine learning technology can determine behavioral and contextual triggers and correlate patterns instantaneously, making it possible to engage the user quickly while they are "in-market" and ensure they get engaged or re-engaged with the brand.

*In today's fast-paced retail environment driven by mobile users, it is critical to deliver the right messaging and creative about a relevant product or service in real-time— because that will be **the difference between a sale and a missed opportunity**.*

3 Group Shoppers Into Micro-Segments

You can only imagine the volume of behavioral, contextual, and environmental data that is available to fuel digital marketing personalization.

Fortunately, machine-learning based recommendation systems are able to process *petabytes of data* in milliseconds, providing scalability to millions of products and consumers, and quickly segmenting audiences.

This is known as **Behavioral Clustering** – shoppers are put into groups or micro-segments based on their behavior and the behavior of similar people, **allowing brands to serve products and messages specific to their micro-moments**.

Increase Relevance

The autonomous decisioning used in this process greatly reduces the work and cost involved in setting up personalization rules and grouping clusters of audiences, which tend to get very elaborate, complex and often error prone.

Now you can make more intelligent decisions about product recommendations and increase the relevance of your ads. Below is a diagram showing how ad content is personalized for specific microsegments, based on data triggers specific to each microsegment.
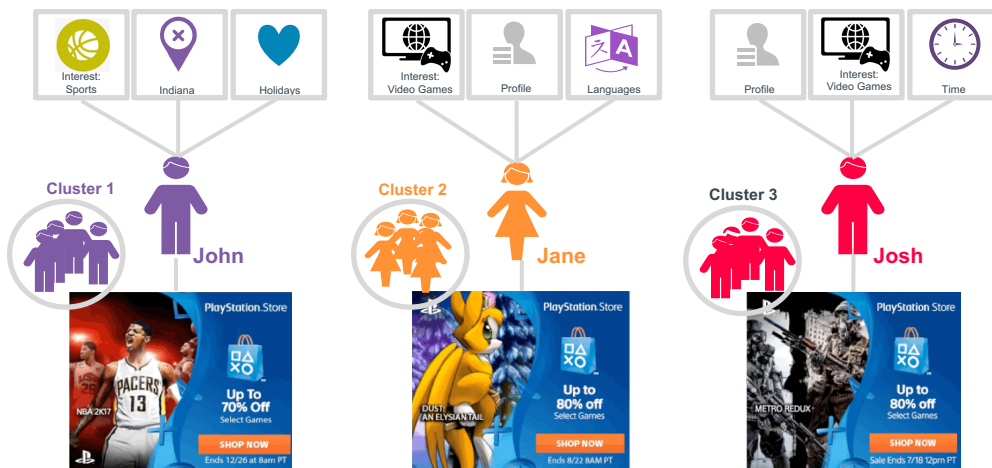
First-party, third-party, environmental, and campaign data are used to feed the machine-learning algorithms that give relevant product recommendations.

4 Better, Faster, Smarter Campaigns

The principle behind machine learning is that it learns continuously from campaign performance data.

Increasingly over time, the recommendation process gets "smarter" and better at predicting which product or message is likely to drive a consumer to engage. From a brand perspective, you are constantly updating and improving recommendations for your consumers.

As a result of the automated optimization, you can produce the best performing marketing campaigns faster than ever. And become a more efficient marketer!

The Proof Is In the Data

So, you now have a system that:

▶ Takes out the guesswork by optimizing creative and messages

▶ Processes big data and provides recommendations in real-time

▶ Creates microsegments of audiences to serve more relevant ads

▶ Becomes more and more intelligent, making you more efficient

Does this really work? Yes!

Personalization using machine learning-driven platform outperforms rich media across all key performance indicators, based on the 2016 Jivox Benchmark Report**. Data was collected and measured from over a billion personalized ad impressions spread across 24 different campaigns and delivered to more than 10 major markets around the world across six verticals.

This next section shows **the performance and impact of data-driven personalization on digital advertising within the travel & hospitality, retail and e-commerce verticals**.

Machine learning will give you insight into what your consumers will respond to and what will trigger click-throughs. Measuring impact by analyzing data and triggers used to be done manually. Not any more. Now, it can all be optimized automatically.

Personalized Ads vs. Rich Media

The study Jivox conducted aimed to answer this question: **What is the impact on ad performance when machine learning-based personalization platform is used in real-time to deliver highly relevant ads to specific consumers?**

Consumer engagement soars, **delivering 3 times the performance of Google benchmark for rich media ads.** Three Key Performance Indicators (KPIs) were tracked: Click Through Rate (CTR), Interaction Rate (IR), and Average Dwell Time (ADT). The following personalization triggers were measured for their effectiveness: Weather, Demographic, Retargeting, Geography, Language and Time.*

Note: Retargeting is not only a simple ad strategy but also works as a trigger for personalizing ads.
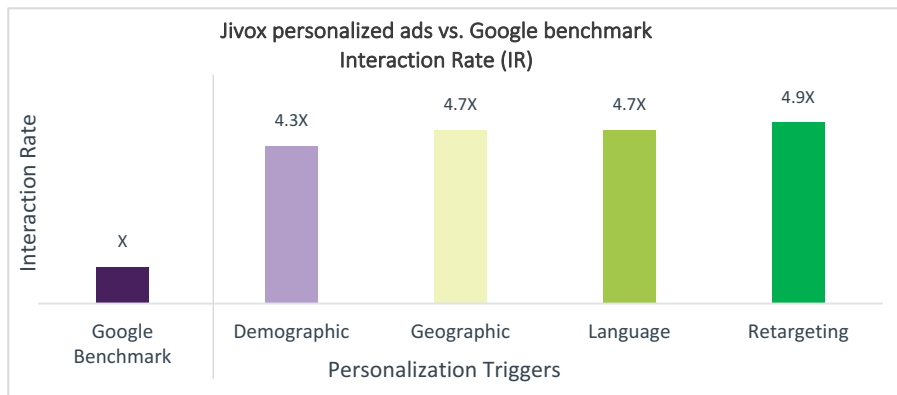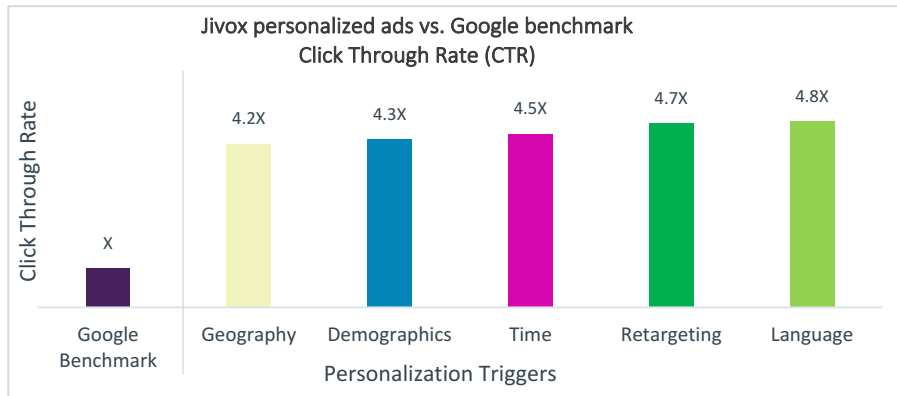
Travel & Hospitality Vertical

Below are results from the Travel & Hospitality vertical where planning and booking were done primarily online. Analysis and conclusions are based on a sample of over 193M impressions.

Jivox personalized ads vs. Google benchmark Click Through Rate (CTR)

Click Through Rate — Personalization Triggers

Google Benchmark	Geography	Demographics	Time	Retargeting	Language
X	4.2X	4.3X	4.5X	4.7X	4.8X

Jivox personalized ads vs. Google benchmark Interaction Rate (IR)

Interaction Rate — Personalization Triggers

Google Benchmark	Demographic	Geographic	Language	Retargeting
X	4.3X	4.7X	4.7X	4.9X

The travel & Hospitality vertical was the most responsive to ad personalization. At an aggregate level, personalized ads in this vertical yielded a CTR of **4.7x** and Interaction Rate (IR) of **4.6x** the Google Benchmark for Rich Media ads (GBR).
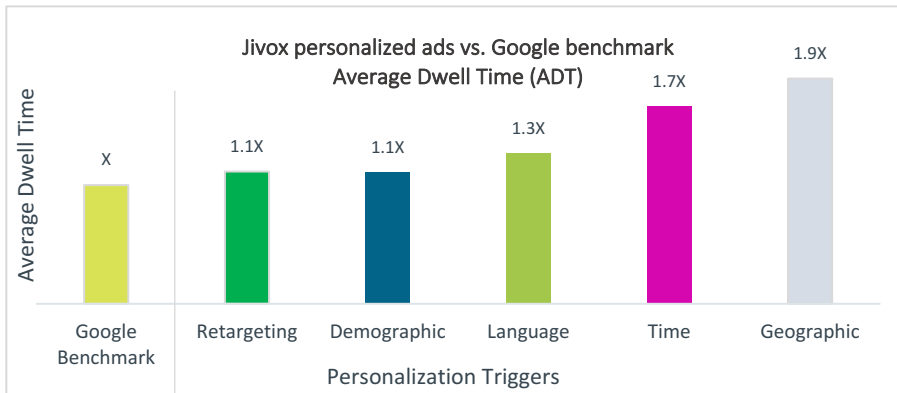
Jivox personalized ads vs. Google benchmark
Average Dwell Time (ADT)

Average Dwell Time / Personalization Triggers

	Google Benchmark	Retargeting	Demographic	Language	Time	Geographic
	X	1.1X	1.1X	1.3X	1.7X	1.9X

Travel & Hospitality Vertical:
117% Increase in CTR Over 7 Weeks

Travel Trend Analysis
Engagement over time (CTR)

—— CTR ·········· LINEAR (CTR)

117%

Machine learning-based personalized ads in the travel & hospitality vertical delivered an average dwell time that is **1.4x GBR.** At an aggregate level across all campaigns in the vertical, the CTR performance trended up by about **117% over the first 7 weeks** of campaign life.
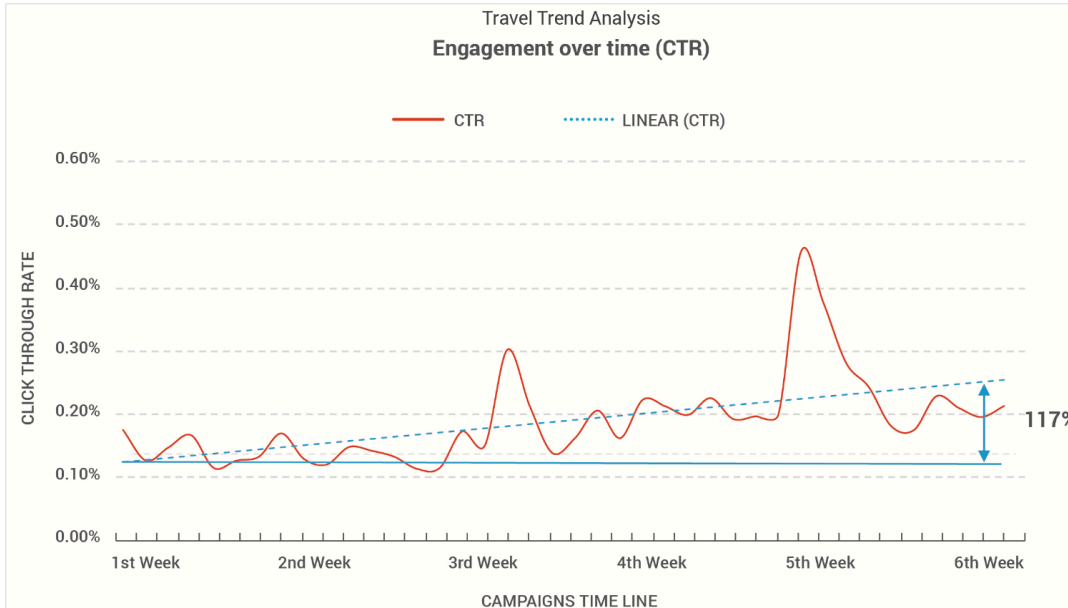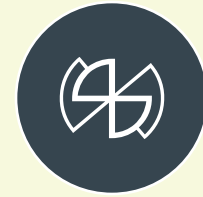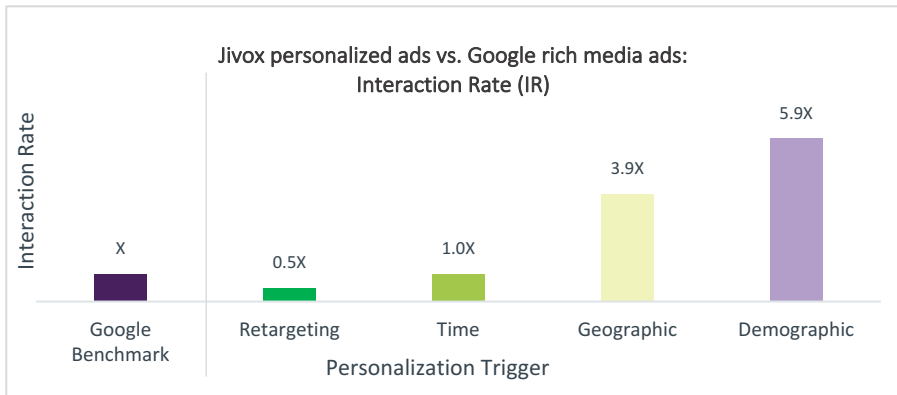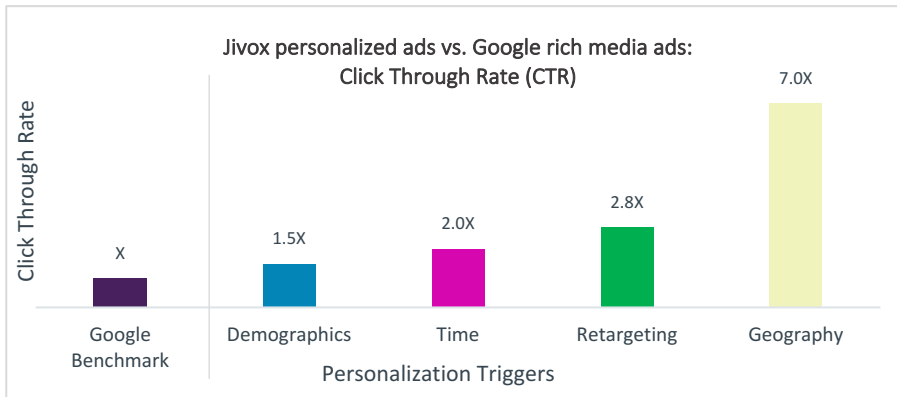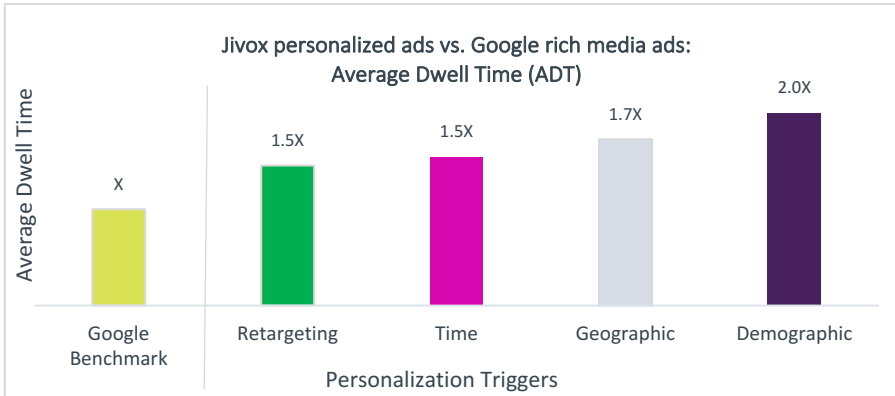
Retail Vertical

Below are results from the digital retail vertical where the market is expected to increase from $174 to $362 billion by 2020 (Juniper Research). Analysis and conclusions are based on a sample of more than 194M impressions.

Jivox personalized ads vs. Google rich media ads:
Click Through Rate (CTR)

Click Through Rate

Google Benchmark	Demographics	Time	Retargeting	Geography
X	1.5X	2.0X	2.8X	7.0X

Personalization Triggers

Jivox personalized ads vs. Google rich media ads:
Interaction Rate (IR)

Interaction Rate

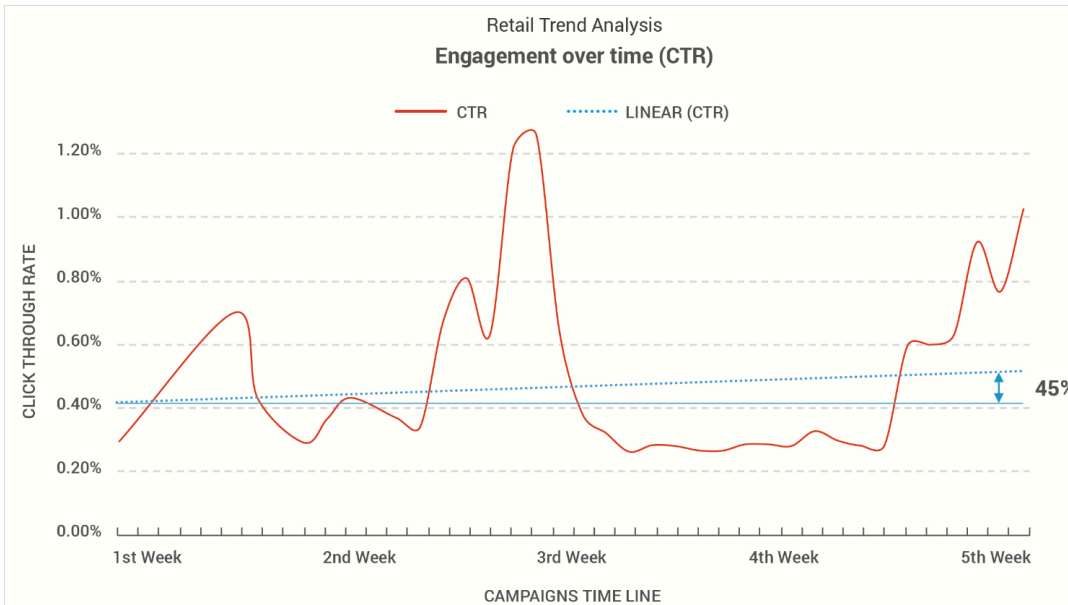| Google Benchmark	Retargeting	Time	Geographic	Demographic
X	0.5X	1.0X	3.9X	5.9X

Personalization Trigger

Geography is the trigger with the highest impact for retail ads. At an aggregate level, personalized ads in this vertical delivered a **CTR of 7x and IR of 4x** the Google Benchmark for Rich Media ads (GBR).
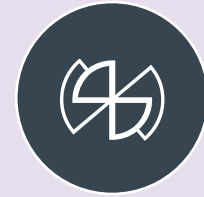
Jivox personalized ads vs. Google rich media ads: Average Dwell Time (ADT)

Average Dwell Time (y-axis)

Personalization Triggers	Value
Google Benchmark	X
Retargeting	1.5X
Time	1.5X
Geographic	1.7X
Demographic	2.0X

Personalization Triggers (x-axis)

Retail Vertical: 45% Increase in Engagement

Retail Trend Analysis
Engagement over time (CTR)

CTR — LINEAR (CTR)

CLICK THROUGH RATE (y-axis): 0.00%, 0.20%, 0.40%, 0.60%, 0.80%, 1.00%, 1.20%

CAMPAIGNS TIME LINE (x-axis): 1st Week, 2nd Week, 3rd Week, 4th Week, 5th Week
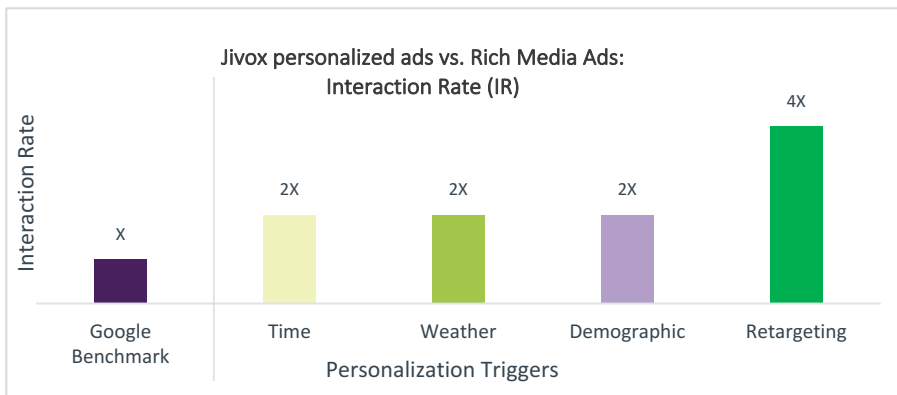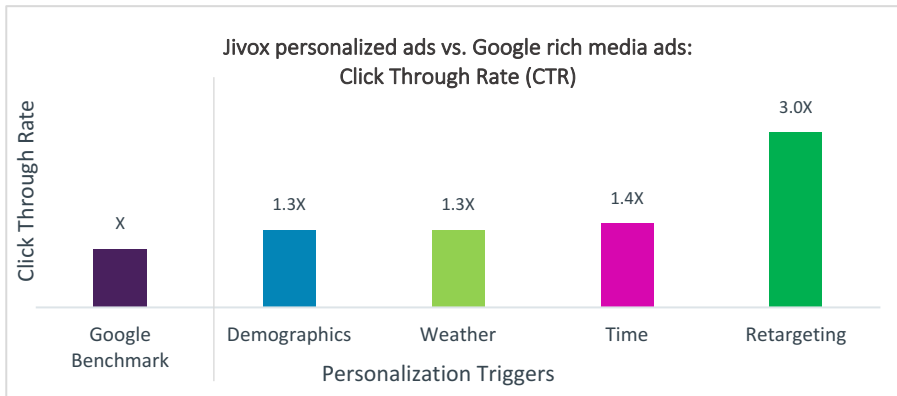
45%

Machine learning-based personalized ads in the retail vertical delivered an ADT that is **1.2x GBR**. At an aggregate level across all campaigns in the vertical, the CTR performance trended up by about **45% over the duration of 6 weeks** of campaign life.
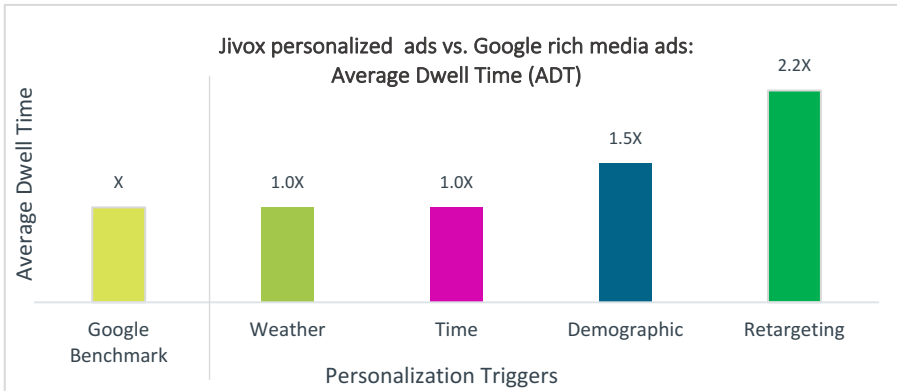
15

E-Commerce Vertical

Below are results from the e-commerce vertical where the advertiser primarily sells goods on the Internet. Analysis and conclusions are based on a sample of over 60M impressions.

Jivox personalized ads vs. Google rich media ads: Click Through Rate (CTR)

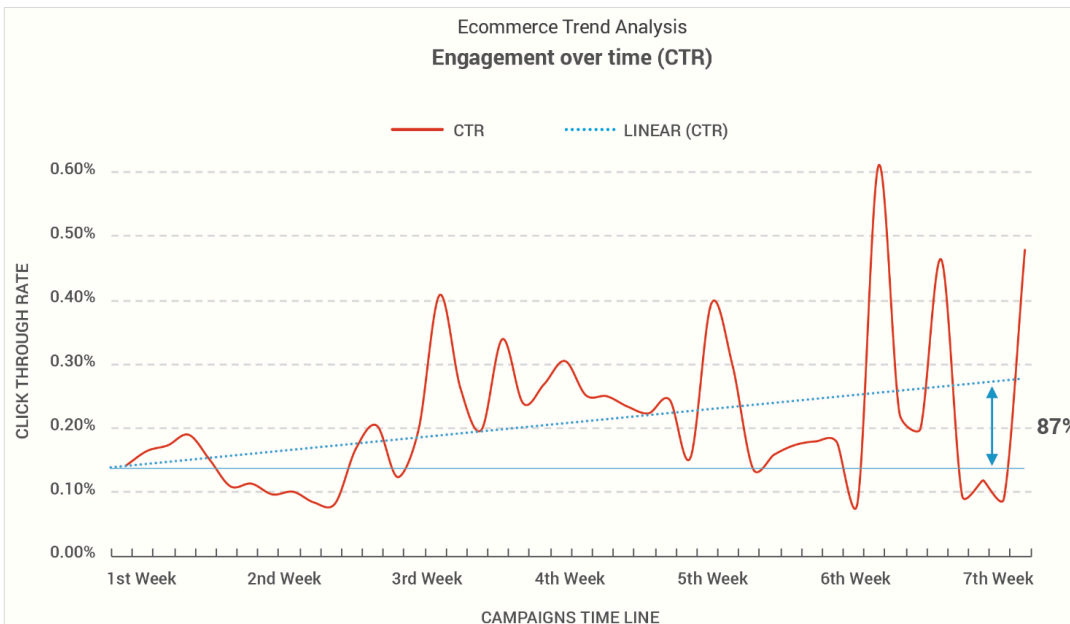Jivox personalized ads vs. Rich Media Ads: Interaction Rate (IR)

Retargeting is the personalization trigger with the highest impact for e-commerce. At an aggregate level, personalized ads in this vertical yielded a CTR of **1.8x** and Interaction Rate of **4x** the Google Benchmark for Rich Media ads (GBR).

Jivox personalized ads vs. Google rich media ads:
Average Dwell Time (ADT)

Average Dwell Time

| Google Benchmark | Weather | Time | Demographic | Retargeting |
| X | 1.0X | 1.0X | 1.5X | 2.2X |

Personalization Triggers

E-Commerce Vertical: CTR Up by 87%

Ecommerce Trend Analysis
Engagement over time (CTR)

CTR ········· LINEAR (CTR)

87%

CLICK THROUGH RATE

0.60%
0.50%
0.40%
0.30%
0.20%
0.10%
0.00%

1st Week   2nd Week   3rd Week   4th Week   5th Week   6th Week   7th Week

CAMPAIGNS TIME LINE

Machine learning-based personalized ads in the e-commerce vertical delivered an ADT that is **2x GBR**, with retargeting delivering the best performance gains at 2.2x the GBR. At an aggregate level across all campaigns in the vertical, the CTR performance trended up by about **87% over the duration of 7 weeks** of campaign life.

Get Results With Personalization

68% of marketers say personalization based on behavioral data has a high impact on ROI. But only 19% do it.*

To learn more or talk to an expert about digital marketing personalization powered by machine learning, go to www.jivox.com

Source: Econsultancy