## Jivox

# Accelerate Digital Marketing Personalization at Scale with Jivox IQ Ad Content Recommendation Engine, Powered by Neuron™

The machine learning-based app is designed to deliver more precise, relevant and impactful digital marketing campaigns in real-time, allowing brands to build a one-to-one experience with their customers.

#### Jivox's Neuron machine learning is built upon the Jivox Personalization Hub, an advanced

technology framework employing in-memory database technology capable of storing—and processing within milliseconds—petabytes of data. The Personalization Hub is used by Neuron machine-learning algorithms that are continuously applied to determine, in real-time, the best ways to personalize creative and messaging to individuals while they are still "in market" for a product or service. The Recommendation Engine is the first of a series of apps powered by Neuron.

### Jivox IQ Recommendation Engine Is the Difference Between a Sale and a Missed Opportunity

Traditional recommendation engines operate in batch mode. And often by the time product recommendations have been processed, the user is no longer in the market for that product or service. In today's fast-paced retail environment driven by mobile users, it is critical to deliver messaging and creative about a relevant product or service in real-time.

With Jivox IQ Recommendation Engine, customers are able to predict and serve messages with increased precision, moving beyond simple retargeting to more sophisticated personalization.

Capabilities	Benefits
Machine learning based	Elimination of the guesswork of product recommendations
Real-time recommendations	Relevant recommendations since the consumer will still be in the market for the product or service
Continuous machine learning	A smarter system that updates and improves recommendations increasingly over time
Scalability to millions of products and consumers	Increased efficiency of marketing campaigns and cost savings

The Jivox IQ Ad Content Recommendation Engine uses a hybrid of collaborative filtering and content-based methods to **increase relevance**, through a combination of personalization strategies, such as predictive product recommendations with environmental and date/time-based messages.

#### COLLABORATIVE FILTERING RECOMMENDATIONS

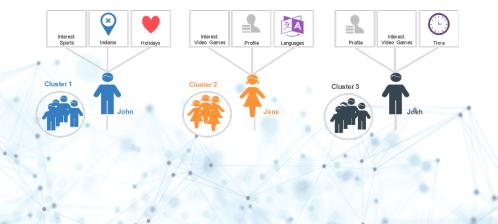
- Automatically predicts and serves products based on preferences of other consumers within a large consumer base.
- Uses Behavioral Clustering to identify clusters based on a person's past behavior, as well as similar historical activities by other people.
- Example: A male consumer that is a sports enthusiast from Indiana and viewed products on the Sony PlayStation site is put into a cluster, a microsegmentation of shoppers.



*"Jivox allows us to move from audience targeting into audience engagement. You can make more intelligent decision about the product not simply based on pure counting."* 

- Tim Bagwell, SVP at Xaxis Ad Labs

#### BEHAVIOR CLUSTERING: MICRO-SEGMENTATION OF SHOPPERS



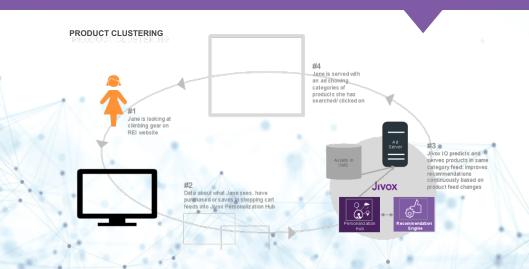
#### CONTENT-BASED RECOMMENDATIONS

- Automatically predicts and serves products based on a consumer's interest and similar products available from the brand.
- Uses Product Clustering, which are tags, categories, pricing, and similar attributes to identify and recommend additional items with similar properties.
- Example: A female consumer is looking for climbing gear on the REI website. Her shopping behavior feeds into the Personalization Hub and the Recommendation Engine predicts and serves ads showing categories of products she has searched or clicked on.



"Recommendation technology, as an application of machine learning, ensures that a brand is able to predict and offer products that individual consumers are most likely to purchase based on correlations between products (similarity) and/or behaviors of the user or similar users. Machine learning-based recommendations take away the guesswork."

- Diaz Nesamoney, Jivox CEO



#### ABOUT JIVOX

Jivox IQ is a cloud-based, datadriven platform for delivering personalized digital advertising and marketing experiences at scale. It is a powerful solution for engaging consumers with the right message in real-time and across all channels.

#### TRUSTED BY LEADING GLOBAL BRANDS

