

Retail CIO Outlook

April - 2019

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Top 10 Artificial Intelligence Solution Providers - 2019

Long ago, paying a visit to retail stores, interacting with multiple sales representatives, and spending an entire day to pick out a product was the only way to shop, but today the scenario is different. Technology, especially artificial intelligence (AI), has drastically changed the shopping experience of buyers in the past few years.

Consumers can now enjoy shopping from the comfort of their home and interact with virtual agents of retail outlets at any time of the day. These AI-powered virtual agents, chatbots, enable consumers to make calculated choices by directing them to products based on their interests, search history, and shopping history. Additionally, these chatbots also help suppliers create a personalized experience for their customers, which in turn, improve traffic on the retail website.

On the other hand, apart from helping suppliers improve customer engagement, AI also helps retailers in optimizing their marketing process. AI-powered pricing and inventory algorithms help retailers set up different pricing strategies and best promotional offers to retain existing customers, acquire new ones, and increase sales. Case in point, AI algorithms gather information pertaining to products from competitors' while considering the on-going sales or promotions.

Besides customer engagement and marketing, AI also pilots the transformation in the logistics and merchandising segments of the retail industry, and this edition of Retail CIO Outlook sheds light on some of those benefits. A distinguished panel comprising of CEOs, CIOs, VCs, and analysts, along with the editorial panel of Retail CIO Outlook have selected the Top 10 Artificial Intelligence Solution Providers 2019, which are at the forefront of delivering distinct AI-powered solutions to the retailers.

4R Systems

recognized by Retail CIO Outlook magazine as

TOP 10
ARTIFICIAL INTELLIGENCE
SOLUTION PROVIDERS - 2019

An annual listing of 10 companies that are at the forefront of providing artificial intelligence solutions and impacting the marketplace

Company:
4R Systems

Description:
Provides AI and machine learning-based solutions that maximize retail profit

Key Person:
Kevin Stadler
President & CEO

Website:
4rsystems.com

4R Systems

Maximizing Retail Profit through AI and Machine Learning

In recent times, AI has sought ground breaking adoption and reach in revolutionizing business processes.

However, for AI to transform any business, it needs massive quantities of data to analyze, unprecedented computational power, and appropriate digital storage. With massive volumes of data being generated every minute, and cloud storage platforms becoming cheaper, AI has found yet another niche in the retail industry. Despite best efforts toward accepting AI and machine learning as viable strategies for analysis and predictive analytics, organizations struggle to identify a solution provider that focuses on maximizing retail profits through direct integration into the existing operational practices.

Leveraging the latest machine learning and AI strategies is 4R Systems, a leading cloud-based AI solution provider that maximizes the prospective profit margins of retail chains by optimizing their supply chain and merchandise decision-making capabilities. When working with the retailers, the firm employs “profit optimized inventory” (POI), a four-layered process that results in more profitable sales on lower overall inventory with less risk. While conventional methods to inventory management require a larger workforce for controlling the processes at increased levels of granularity, implementing analytical solutions based on statistical and machine learning techniques, on the other hand, simplifies the entire process in addition to providing logical answers that can maximize profit. 4R Systems aids in countering the practical challenges and complexities that their clients face when they leverage machine learning and advanced analytics.

Kevin Stadler, the president and CEO of 4R Systems details the kick off of their implementation procedure, once a client approaches them. The project starts with the company using business discovery into the existing constraints and key performance indicators (KPIs) used by the customer to drive the business. After running the simulations and models using historical data, the 4R Systems team can illustrate the business case prior to implementation. Moreover, the analytics algorithms also compare the existing operation against the “efficient frontier” of optimization. “The unique modeling environment that we have



developed gives answers that can be easily implemented by retailers to boost profits and reduce risk,” states Stadler.

4R Systems offers an array of solutions that include Store and Omni-replenishment, DC replenishment, assortment optimization, vendor order optimization, seasonal allocation, markdown optimization, and initial buy. The solutions employ models that analyze attribute demand patterns, inventory costs, most profitable inventory level, and other supply chain parameters. Given lead times for products, many times the highest risk decision is determining what the initial buy should be; too much is a loss and too little is a loss as well. 4R Systems solves

this issue using its “initial buy optimization” that turns risk based assumptions into logical conclusions. The peak and tail demand patterns of many seasonal items is another area that introduces risk against profit. The “seasonal allocation” solution saves them from this most significant risk, transforming the risk into profit. Yet another AI-based solution from 4R Systems, the “assortment optimization” product helps retailers achieve their merchandising goals and localizing product selections to consumer preferences.

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As investors across the globe pump billions of dollars into funding AI startups and research, 4R Systems also keeps up with this trend. In order to enhance their current model, the company is in the process of developing new simulation capability that can be run against different strategies. In addition, their Analytics division is constantly using machine learning to look at the data and determine better ways to predict the best outcomes at the least risk. **RC**