

# Retail CIO Outlook

FEBRUARY, 2018

RETAILCIOOUTLOOK.COM

## TOP 10 Artificial Intelligence Solution Providers - 2018

Retailers today find themselves at a cross road of customer expectations. Not only do the consumers increasingly want them to offer convenient, responsive and personalized services, they also expect ever-greater ownership over their retail journeys. In their quest to optimize retail execution, retailers are seeking out for Artificial Intelligence (AI) to obtain better insights and pervade across customer journeys, supply networks, merchandizing, and marketing and commerce. According to IDC, 40 percent of digital transformation initiatives will be supported by cognitive computing and AI capabilities in the next two years to provide critical and on-time insights to the retailers.

Behind the scenes, AI is already determining which products shoppers spot and buy, and even the exact prices that they will pay for them. From manufacturing and

supply chains to staffing and merchandising, retailers are using AI to meet demand, understand customers, and reduce operational costs in every spec of their retail life-cycle. From Amazon's ambitious sans-checkout retail store "Amazon Go", to Sephora's use of AI for omni-channel marketing, the latest and novel innovations has made it clear that the future of retail is in the fusion of the physical and digital.

To help navigate this constantly innovation AI retail landscape, our distinguished selection panel, comprising CEOs, CIOs, VCs, industry analysts and the editorial board of Retail CIO Outlook narrowed the final 10 Artificial Intelligence Solution Providers that exhibit competence in delivering advanced digital technologies to create a true retail omni-channel.

We present to you Retail CIO Outlook's Top 10 Artificial Intelligence Solution Providers - 2018.

### 4R Systems

recognized by Retail CIO Outlook magazine as

TOP 10  
ARTIFICIAL INTELLIGENCE  
SOLUTION PROVIDERS - 2018

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

**Company:**  
4R Systems

**Description:**  
Delivers assortment optimization solutions to retail enterprises by effective utilization of machine learning and advanced analytics

**Key Person:**  
Mark G. Garland,  
EVP Sales

**Website:**  
[4rsystems.com](http://4rsystems.com)

## 4R Systems

# Assortment Optimization Powered By Artificial Intelligence/ Machine Learning

**W**e have come to a point where a nation's artificial intelligence capabilities will determine its influence over the world. A lot of enterprises belonging to a myriad of sectors have realized the benefits of this cutting-edge technology and are adopting AI to empower their clients and make strides regarding visibility and profitability. Dr. Marshall Fisher, a MIT grad and Wharton Business School Professor and Dr. Ananth Raman, a Harvard Business School Professor, realized that many business milestones could be accomplished by effective utilization of predictive analytics and machine learning, which resulted in the inception of 4R Systems. The company, whose name (4R) was inspired by the belief 'Right product at the right place and right time, results in right profit', caters to the concerns of the retail industry.

4R Systems aims to improve the relationship between consumer demand, product availability and logistical support, a common retail equation which demands equilibrium but is seldom optimized past the existing silos. The company employs automated machine learning techniques to help arrive at accurate business predictions based on consumer demand. This approach is significantly more efficient as compared to the traditional, judgment based analysis. Mark G Garland, EVP, Sales, 4R Systems, mentions that the company helps clients maximize returns apart from mere mitigation of retail hurdles, which makes 4R relatively more pragmatic since most retail solutions haven't been successful in ROI generation. "The adoption of our solution has increased the profits of our clients from one percent to an impressive six percent. This enhanced revenue is many millions of dollars for a multi-billion dollar enterprise," he says.

The Assortment Optimization solution, a solution that has helped the Pennsylvania-based firm carve a niche in the retail realm, showcases 4R Systems' rich machine learning capabilities. Most customers anticipate retail outlets to be equipped with a product assortment best suited to their shopping tastes. The 4R attribute driven approach helps uncover correlations between product attributes and consumer buying habits by mining the underlying demand via

product attributes. The method helps in achieving an optimal assortment which offers benefits to both consumers and retail enterprises alike. A continuous optimization methodology is an integral part of the assortment optimization activity to ensure consumer buying patterns are monitored on-going and, most importantly, can be efficiently implemented. The 4R retail solution facilitates enterprises to customize a solution that perfectly resonates with their business environment with a minimum of business process change.



Mark G. Garland

Store & Omni replenishment is the most noteworthy offering in 4R's solution suite, and its adoption helps retailers minimize risks associated with traditional SKU replenishment. The employment of 4R's replenishment solution has helped clients reap a string of benefits. Most importantly, 4R's SaaS delivery model eliminates costs involved in hardware procurement and installation. "Our team of experts includes industry veterans with vast knowledge of the retail landscape, especially the intricacies, and communicate with the supply chain staff of our retail clients to provide deep insights on future

inventory performance. This approach not only helps deliver accurate solutions but ushers transparency and agility," Garland adds. 4R Systems delivers millions of reorder points on a weekly basis to some of the largest retailers in the world, a scalability accomplishment which deserves the attention of firms on the pursuit of a retail solution vendor. The ability to weigh risk versus profit in a holistic optimization real time is something that cannot be done with existing systems and large teams of forecast planning analysts.

Marsha Shapiro, Senior Vice President, Product Management, 4R Systems, gives a glimpse of the company's roadmap, more precisely a sneak peek of the innovation to be introduced to the retail sphere quite soon. "We continue to focus on solutions utilizing our machine learning capabilities to create profit improvement recommendations and enabling our users to quickly 'take action' against the recommendations. Additionally, we are utilizing our profit optimization engine to enhance space and promotion planning which require enhanced capabilities to ensure operational efficiencies." she says, concluding the discussion. **RC**