Technology

Opinion: Artificial Intelligence helps in all areas

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By Jennifer Graves – Contributing writer
Oct 25, 2019

Every time there is a news report of an impending storm, hordes of shoppers head to the grocery store to stock up on water and candles, and in the winter, snow removal equipment or generators.

In preparation, store managers order additional goods only to either not order enough, leaving the shelves quickly emptied, or order too much, leaving them with a surplus.

Now, spikes in purchasing can be anticipated and regular orders can be supplemented with greater accuracy with the assistance of artificial intelligence and machine learning.

In the food businesses, for example, inventory may need to change not only with fluctuating weather conditions — a heat wave may spur more purchases of ice cream — but also with other influencers, such as school closings. AI and machine learning can allow near real-time responses by combining analyses of varying external factors with internal data, including sales history and unit profitability.

Artificial Intelligence and machine learning now can be used to review digital records of corporate clients to help them focus on bottom line profitability in supply chain, inventory and distribution networks. Through the use of AI a company can become far more flexible in anticipating both supply and demand, and it can provide more strategic management of cash flow and risk management.

The evolution of AI and machine learning is becoming more visible and hands-on for both managers and consumers. Major retailers already are experimenting with robotic devices that patrol the aisles and can assist customers to find products through a searchable computer display, with the addition of advanced voice recognition and laser-based sensors that help them navigate. Some hotels offer room service delivered by robot. There also is limited use of proprietary drones to improve inventory management, and preliminary results indicate that inventory tasks that once took humans a month now can be completed in 24 hours using drones.

The ability to understand the technical aspects of AI and machine learning and their role in solving daily problems faced by merchants as well as

manufacturers opens a new door on efficiency and profitability. The wealth of data available can range from spread sheets to handwritten notes on sales, inventory and myriad other external factors, including weather patterns, community events, holidays, and even unscheduled school closings for snow days.

For a chain of coffee shops, for instance, an extended period of warm, dry weather can be a harbinger of increased sales of iced drinks, while cold, wet weather can prompt spikes in hot beverages. During baseball season, demand for [sports](#) drinks and electrolyte replenishers may soar, and AI can be instrumental in helping managers focus more clearly on inventory requirements.

The merger of AI and machine learning's high-speed capabilities to quickly analyze vast amounts of data with the human capacity to determine how those analyses fit with local conditions heralds a new age of efficiency for retailers and manufacturers alike. Taking the guesswork out of the equation and replacing it instead with accurate analyses and an improved ability to determine outcomes ultimately leads to profitability all around.