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Machine learning can optimize the supply chain

October 15, 2019 8:00 AM

E-commerce Ferenc Kömlödi Takes 3 minutes to read!



How is artificial intelligence applied to the supply chain and how can it be optimized? From logistics to warehousing, machine learning rewrites the whole area.

Machine learning plays a key role in many critical applications. **Algorithms** based on this technology also help companies retrieve useful business information from the ever-growing volume of passive data in the big data era, which can significantly contribute to optimizing supply chains, predicting chain win and risk points (especially algorithms to detect anomalies), pattern recognition, and predictions).

One of the most effective methods of risk assessment and management today is **machine learning** supported predictive analytics a major improvement over traditional methods. Whereas the latter is the input of forecasting for the development of strategies - optimization - that is, a two-step process, with the help of predictive analytics the two can be combined and decisions can be automatically generated from the relationships between information. Companies use technology based on data from a variety of external and internal sources to better understand consumers' daily actions, predict seasonal trends, product feedback, interest in new products, and based on these to sell targeted products and services. The fragile equilibrium of their stocks is maintained by machine learning. Let's see some examples!

One of the applications of ToolsGroup optimization software is product launch. The program begins by generating basic forecasts, and then, by learning more about early sales and demand trends, defines more accurate demand trends by organizing outputs. Use these to optimize inventory levels and upload plans.

Incomprehensible amount of data

The **TransVoyant technology** daily trillion - sensory, satellite, radar, video camera, smartphone - to collect and analyze data. In logistics applications, the algorithm tracks real-time shipment path, weather and other natural factors, traffic jams, and so on. Calculate your expected arrival time based on that.

The **Sentient technology** provides sales advice to e-merchants based on image recognition. Instead of searching through text, identifying features such as colors and brands, the program looks at visual relationships between articles that a customer constantly browses through visual pattern matching. Amazon Robotics improves accuracy, speed, and other capabilities with machine learning, and its predictive network management system analyzes 58 parameters of internal data to identify the factors that most impact shipping. These solutions illustrate that algorithms and predictive analytics are a great help not only in forecasting, but also in strategy development and planning, and next-generation supply chain management is driven by machine learning.

According to Gartner, by 2020, 95 percent of supply chain planning salespeople will make intensive use of the results of both supervised and unattended algorithms in decision

making. According to another Gartner forecast, by 2023, supply chain technologies will have a decline of approx. Intelligent algorithms and other artificial intelligence solutions account for 25 percent.

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