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BENEFITS OF MACHINE LEARNING FOR BUSINESS

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Анотація

У доповіді розповідається про переваги машинного навчання в бізнесі. Подано результати дослідження прибуткових компаній.

Ключові слова: машинне навчання, штучний інтелект, е- торгівля, статистичний аналіз.

Abstract

The article considers the advantages of machine learning in business. The results of the survey of profitable companies are represented.

Key words: machine learning, artificial intelligence, e-commerce, statistical analysis.

Machine learning is an application of artificial intelligence (AI) that provides systems the ability to automatically learn and improve from experience without being explicitly programmed. Machine learning focuses on the development of computer programs that can access data and use it learn for themselves.

Last year, the total number of machine learning deals reached 91 globally, with the entire business value of 16.9 billion dollars. According to Deloitte, 100,000 legal positions will be automated by 2036. So, automation and machine learning will make a huge difference and change the way how we work.

The survey of companies with at least $500M in sales brought such statistics:

- 76% of leaders share their experience that they got higher sales growth by using machine learning. New technology helped them to predict better user preferences and behavior, optimize processes, lead up-sell and cross-sell.
- More than 50% of enterprises are applying machine learning to refine marketing issues.
- 38% believe ML allowed them to gain better sales performance metrics.
- A few European banks have already improved new product sales by 10% while decreasing churn 20%. A recent McKinsey study figured out that a lot of European banks shifted from statistical modeling approaches to ML. It helped them to refine customer satisfaction.

Machine Learning application is valuable in business, e-commerce, trade and finance Catherine Dong, the machine learning engineer at Facebook, says that most tech companies build their strategies around AI and machine learning. For example, Uber is actively applying ML for various purposes.

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An e-commerce application may apply ML to track and understand customer conversation connected to a product. It may even apply the algorithm to predict the functionality and features expected by the clients. Moreover, an enterprise may use machine learning to build better relationships with their customers. The machine learning algorithm may easily dissect the customer queries, and send the request to the relevant team. It will speed up the process of solving the clients’ problems and bringing them answers very fast.

While creating e-commerce applications, the developers may use machine learning to allow clients finding products quicker. Specific machine learning algorithm helps to ensure that customers get relevant and quality information on time. Besides, new technology helps clients select products according to their needs and preferences. The e-commerce platform may apply ML to make the clients surf only relevant

services and products.

Machine learning brings a lot of personalization to the customers and helps to target company's efforts. For instance, Facebook mixes statistical analysis and predictive analytics to find patterns based on data. It helps to personalize the newsfeed, suggest interesting content, posts, improve user engagement. Also, Facebook uses neural networks to scan images and suggest members to tag in the picture.

Netflix used machine learning to save $1 billion by the personalization of movies and TV shows to the subscribers. Additionally, ML may be used to detect spam. Earlier, email service providers took advantage of rule-based techniques to sort out spam. Nowadays, spam filters are now developing new rules by applying neural networks for these purposes.

PayPal applies at least 3 machine-learning approaches to eliminate risk and fraud. Hello Barbie may successfully communicate with children by using machine learning and advanced analytics, natural language processing. A microphone records, the speech is analyzed to find a needed response from 8,000 variations in under a second.

Another example is IBM's machine learning system, Watson, that learned Gaudi's work and his work involving Barcelona, song lyrics. Watson consumed all data and brought inspiration to the human artists who needed to create a sculpture in the style of Gaudi.

Deep learning may be used in the financial industry to create automated trading strategies. It can be used to recognize patterns and make trading decisions, based on data. The other potential applications are creating credit rating mechanisms by searching patterns of external, internal, and economic factors that influence the financial performance of organizations. Similarly, these techniques may be applied as well to bring relevant automated investment advice to the customers.

So, machine learning helps business to personalize their cooperation with the audience, improve sales and suggest only relevant content. By using new technologies, company earn better and save money, make data-driven decisions. Moreover, ML algorithms help to exclude risks and fraud, ensure totally secure processes and refine customer satisfaction.

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