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## **ARTIFICIAL INTELLIGENCE IN DECISION-MAKING SYSTEMS**

The application of artificial intelligence is one of the most relevant topics of today, it is used in various fields, one of which is the field of decision-making systems. The use of artificial intelligence can assist in management, data analysis, and making informed decisions. This article will discuss the role of artificial intelligence in decision-making systems.

Conceptual provisions are considered regarding the construction of a decision-making system using artificial intelligence tools. The principles of building intelligent decision-making systems are presented, the corresponding toolkit is outlined. Emphasis is placed on the need to take into account risk in decision-making systems.

Artificial intelligence makes a significant contribution to the development of decision-making systems. It can analyze large volumes of data, identify complex dependencies, and make predictions. AI can use various algorithms and methods, such as machine learning, neural networks, and genetic algorithms, to achieve optimal solutions.

Examples of using artificial intelligence in decision-making systems:

- financial analysis: AI can analyze financial data and make predictions about investments, risks, and profitability;
- medical diagnostics: AI can analyze medical data and assist in diagnosing various diseases, search for effective treatment methods, and make predictions about treatment outcomes;
- supply chain management: AI can analyze data on supply, demand, and other factors affecting the supply chain, and assist in making decisions about process optimization and cost reduction.

The advantages of using artificial intelligence in decision-making systems are:

- increased speed and accuracy: AI can process large volumes of data faster and more accurately than humans. This allows decisions to be made based on objective facts and analysis;
- detection of complex dependencies: AI can detect complex dependencies between different factors and find optimal solutions that may be inaccessible to humans;
- automation of the decision-making process: AI can automate the decision-making process, reducing dependence on the human factor and increasing efficiency.

So, it can be concluded that the use of artificial intelligence plays an important role in decision-making systems, helping to analyze data, identify dependencies, and make informed decisions. The use of artificial intelligence in decision-making systems has many advantages, such as increased speed and accuracy, detection of complex dependencies, and automation of the decision-making process. Examples of using artificial intelligence include financial analysis, diagnostics, and supply chain

management. The application of artificial intelligence in decision-making systems contributes to improving the efficiency and quality of decisions made.

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