

THE USE OF NEURAL NETWORKS IN THE DATA MINING (CLUSTERING) PROCESS

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The article is devoted to the problems of using neural networks as a tool for cluster data analysis. A comparison of the most famous algorithms based on the main criteria gives an opportunity to make a decision of choosing an optimal solution.

In general, data mining is a process of identifying usable data in large datasets.

Clustering or natural classification is the process of merging into groups of objects that have similar features.

At the beginning, using of neural networks in the cluster data mining caused ambiguous responses due to such disadvantages as the complexity of the structure, too long periods of training and poor interpolarity. But they were compensated by a set of positive

qualities that still make neural networks as a strong competitor to the other tools.

Summing up, we can say that the Kohonen self-organizing neural network may be one of the foundations of an adequate algorithm in comparison with other types of neural networks, which are intended for cluster data analysis. The article also includes recommendations for choosing an optimal algorithm for clustering among the most popular algorithms.

The problems of using clustering play an important role in data analysis since the results of cluster analysis significantly affect the formation of enterprise strategy. It is known that there is no single correct clustering algorithm, so this topic is still very relevant nowadays.