Specialists from Sberbank, IFTI, the Institute of System Programming of the Russian Academy of Sciences and Skoltha developed a technique that accelerate the training of distributed artificial intelligence systems (AI). Development can significantly reduce the load on computing networks and reduce power consumption.

The main innovation of the method is the combination of several approaches to data processing. The algorithm uses compression of information, takes into account the similarity of data between the nodes and optimizes the data exchange rate. As the Associate Professor of MIFT explained, Alexander Beznosikov, this allows you to reduce the time of training in models without loss of accuracy.

The technology is especially useful in conditions of limited capacity of networks. According to the director of the Center for Practical Artificial Intelligence Sberbrus Gleb Gusev, the method solves the key problem of distributed learning – high communication costs.

Development will find application in various industries – from finance to telecommunications and industry. Scientists note that their approach opens up opportunities for creating more effective AI algorithms and accelerates the introduction of machine learning technologies in practice.

The method has already passed an empirical check that confirmed its effectiveness.