

Big data mining – it is a new technology that helps companies and enterprises to manage their data of all kinds.

Recently the amount of such data has become huge. Databases of companies are measured in terabytes (it is equal to millions of books). But all those data are raw unclassified data, they do not give any useful information. So, there is a need to turn those terabytes of raw data into classified data sets.

For storage of big data are used nowadays Data Warehouses. They are used to store data located in databases of companies.

Actually, the data warehouse is a set of particular category of data, some kind of data classification. They enable users to work with data more fast and efficiently. Though nowadays just keeping data in a data warehouse is not enough, because it is still very difficult to manage them in an efficient way.

At this stage is big data mining used. Big data mining is a computer-assisting process used for data digging. Nowadays for this are used powerful computers, as the amount of stored data is enormous.

Tools for data mining are used to predict future trends, this helps companies to work more efficiently and to make better business decisions.

Data mining can be helpful for automated prediction of trends and behaviors, because it analyses the information from database and uses it to make a forecast about the future trends and behaviors. Data mining also helps to discover previously unknown patterns.

For example, while the process of data mining one can identify products that are normally bought together, even though those products seem to be unrelated.

The technique used for data mining application is called modelling. Model is built based on data analysis process, later this model can be used to make forecast for the situations similar to the analysed one.

For data mining are used mathematical algorithms. But the new things is that the amount of data is huge, so its mining became available only with developing of technology. Besides, graphical interfaces made possible the comfortable use of data mining results.

There are some specific tools used for big data mining: Artificial neural networks – models that are similar in its structure to biological neural networks.

Decision tree s – structures in a form of a tree. Those structures represent decision set. Those structures are used to generate rules for data set classification.

Genetic algorithms – techniques for data set optimization, used based on genetic mutation, natural selection and genetic combination.

Rule induction – a method when useful rules are applied for similar data sets. Nearest neighbor – it is a technique when each record is classified based on the most similar record in database.

We can say that big data mining process is at its initial stage. It brings now results in business, facilitates data use, assists users in making based decisions. In near future big data mining and application of its results can become as easy and common as e-mail or phone.

In future it may be widely used for all fields of business. Though it bears also some dangers. The most significant concern is privacy concern, because if all data is collected in a database and can be analysed and applied in some way, that means that information of any user becomes available to those who have access to the data. Though each technology has its advantages and disadvantages.

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