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# Big data as the future of information technology

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Currently, the problem of "Big Data" is one of the most, if not the most urgent in computer science. Its solution implies the possibility of processing uncorrelated and heterogeneous data of large volume, the implementation of their integration from distributed sources by consolidation or federalization methods and ensuring the security of access and storage of these data. Only the creation of technology that provides processing and storage of dissimilar, uncorrelated data of large volume can be considered a breakthrough result corresponding to the world level.
To effectively address these issues, a new definition of this concept is proposed, namely, "Big Data" is characterized by the situation when the conditions for implementing the CAP theorem are relevant. The CAP theorem is a heuristic statement that in any realization of distributed computations, it is impossible to provide the following three properties: Consistency, Availability and Partition Tolerance.
Thus, depending on which of the properties cannot be implemented, we are dealing with different types of "Big data". And this, in turn, means that a standard approach based on the MapReduce concept has a limited scope of applicability. Various possibilities for implementing data processing in different cases are discussed, and a conclusion is made about the need to create an ecosystem of "Big data".
The work will review the world market of Big Data technologies, and also describe the state of work on this problem in various countries. At the end of the article, we will talk about the opportunities that the solution of the problem opens for various fields of science and business.

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