Research on the Application and Development of Big Data Technology in China's Computer Industry under the Going-out Strategy

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Abstract. Big data industry should give appropriate support and incentive policies to encourage it to strengthen the research and development of big data core technologies and effectively improve the practical application capabilities of big data. Considering the development of big data enterprises, it must be based on the support of advanced technology. Of course, as an enterprise, the operating cost is also one of the key considerations. In this regard, in order to promote the profit growth of enterprises, the government must increase the research and development of special technologies for big data and actively promote the diffusion of big data technology within and among industries, in order to promote the dividend of big data industry. Released as soon as possible, this way grasped the convergence of big data industry and traditional industry and then speed up the transformation of scientific and technological achievements.

Keywords: Big Data Technology, Strategy, Industry

1. Introduction

In order to effectively promote collaborative innovation among governments, enterprises, universities and related research institutions, the introduction of market mechanisms is also extremely necessary. Reasonable introduction of market mechanisms can help promote the real-time sharing of resources in various fields and then effectively play the complementary advantages of various industries to accelerate the development of big data technology[1]. At the same time, based on the link of R&D of big data technology, industry, academia and government departments are linked together to ensure the full play of the value of big data through cross-departmental and cross-domain cooperation. Of course, in this process, the government can also set up a special innovation and development fund to increase financial investment in R&D and innovation of big data, support a number of projects that have
achieved technological breakthroughs and achieve industrial transformation and cultivate a number of high-level industries and Locally competitive companies in the market. Exploring big data derivative product transactions, so that the society of data resources plus the energy can be maximized.

2. Big data technical analysis and application

2.1. Data feature

The processing of small data information is generally performed in units of MB, while the unit of large data information is in GB, TB or even PB and is in continuous development. According to related surveys, the data volume of the largest data warehouse in the world will increase by more than 2 times every year. When dealing with large-scale data, traditional data systems often use random sampling to achieve the effective acquisition of a large amount of information with the least amount of data. This kind of processing is usually applicable to the situation where large amounts of information cannot be effectively obtained[2]. The accuracy will change continuously with the change of sampling data. The value of data is hidden in massive data and it is impossible to effectively obtain more valuable information through random sampling. Compared with it, the big data information system needs to preprocess the data information before analyzing the data, which is undoubtedly a severe test for the big data information. For the modeling of big data mining, the most effective method is to divide the target matrix into sub-matrices of the same size and different regions and then distribute these sub-matrices on the nodes of multiple servers and fully transform the data mining algorithm. It is divided into two steps, the first step is to perform effective operations on these sub-matrices at each computing node and finally obtain the results of the calculation. In the second step, the calculation results of these sub-matrices are collected together for operation, thereby calculating the result of the entire matrix. The following are various channels for big data.

![Figure 1](image)

**Figure 1.** various channels for big data

2.2. Used in the manufacturing industry

The quality of life of contemporary people continues to rise, and the demand for corresponding product quality continues to grow. The same is true in the manufacturing industry, causing the manufacturing industry to face tremendous pressure, and the full use of data mining technology can
effectively improve the quality of its manufactured products. Mainly because of the application of data mining technology under big data, real-time tracking and management of manufactured products can be carried out, and data generated by product problems can be obtained in time during the entire process, so that the production efficiency of the product itself can be fully understood and controlled. At the same time, it can also directly provide important data analysis operations for the production of subsequent products, and have a targeted response effect in solving product problems, which can effectively improve production efficiency and promote the manufacturing industry to obtain considerable economic benefits. Therefore, the use of data mining technology in the manufacturing industry can greatly promote the sustainable development of the industry, and it is necessary to conduct in-depth exploration [3].

2.3. Used in marketing

The application of data mining technology in the era of big data is more reflected in the level of data analysis. Generally, data mining is most widely used in the field of marketing. Mainly because the development of marketing needs to use data mining technology to analyze and extract market data information in depth. With the help of big data technology, a large number of market user information resources can be collected and mastered, and the real needs of users can be obtained through data analysis. Big data technology can also be used to obtain a variety of data information that market users feedback in time, so as to improve the marketing development model on this basis. For example, with the help of data mining technology, users can analyze the number of clicks and views of users, and merchants can also selectively push some commodity-related derivative products for customers in the back-end data management system, thereby allowing users to get more information. Multiple choices will greatly enhance users' product experience [4].

2.4. Used in the telecommunications industry

The development of the information age to the era of big data has promoted the entire telecommunications industry to obtain unprecedented development opportunities. However, with the rapid development of the telecommunications industry, due to its very large user base, there are many practical issues that need to be addressed. And this requires a good service to effectively solve the problems of users, so as to provide good service quality to the outside world and bring a good user experience to users. Generally, telecommunications technical services require a large amount of data to support, otherwise it is difficult to effectively solve practical problems, but such technical services are easily affected by the data flow, so it is easy to cause the level of service quality to decrease. The application of data mining technology can help the telecommunications industry effectively reverse this situation. Through the use of data mining technology, complex telecommunications data can be analyzed in depth, the laws can be effectively found, and continuous improvement can be made in conjunction with user feedback.

3. Development strategy of my country's computer industry

In the big data environment, it brings many conveniences to news dissemination and big data news is no exception. The editing content of big data news must be based on facts and wisdom. Really
valsable news is news with ideological value, in other words Even though it is in the context of big data, news still has to follow the essence and connotation of news. Big data journalists should use big data technology reasonably and scientifically, so that their personal wisdom can become professionals who use technical tools and do not rely on technology. In this way, the quality of the content of the report can be guaranteed and at the same time, the professionalism and ability of the reporter can be continuously trained. Therefore, the computer industry practitioners are required to analyze the data objectively and calmly in a large amount of data environment and use the data reasonably to promote the development of the big data computer industry.

4. Big data technology go out strategy analysis

4.1. Application of big data technology in the field of commodity retail

A store sells steamed buns. Through data analysis, it is learned that customers who buy steamed buns in this store will often go to another porridge shop to buy hot porridge or milk. There are not many people who go, so this store can consider Shop cooperation, or sell hot porridge or milk directly in our shop. There are many related examples. The classic case on the Internet is the "beer and diaper" story, which you can check online. Through these common cases, merchants can use the business value of big data to help business decisions[3].

4.2. Application of big data technology in the field of transportation logistics

The source of transportation and logistics big data is the remote communication sensors installed on the logistics vehicles. These sensors can return dynamic logistics information, including: driving speed, driving direction, braking conditions and dynamic performance data. If various sensors, scanners, sensors and other devices are combined with radio frequency identification technology and global positioning system to collect various data information in real time, combined with Internet technology to form a huge network, we call it the Internet of Things. The value of these data requires the use of big data technology to mine and analyze it, so as to sort out valuable information, help the company to redesign logistics transportation routes and then apply it to navigation maps and other fields to continuously update and optimize transportation logistics[6]. Receipt and distribution of lines bring great convenience to logistics and transportation. In addition, big data is also widely used in medical and educational fields, energy field, manufacturing field, financial field and cultural computer industry field. The key technologies of big data are shown in the figure below.
5. Conclusion

At the same time, the demand for talent in industries related to big data has surged, such as big data sales, big data consulting, etc. The demand for talent in these related industries has further driven the increase in the demand for talent in the entire industry. In terms of ability, different talent needs correspond to different ability requirements. Big data engineers emphasize big data technology. Big data analysts need not only technology, but also the ability to write and express analytical reports. Big data scientists are more demanding, tracking and leading the development of the industry.

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