Research On The Application Of Artificial Intelligence Technology In Scientific Research Management In Colleges And Universities

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Abstract—With the progress of science and technology, the popularity of the Internet is also gradually increasing, artificial intelligence technology has also begun to enter people's production and life. In addition, artificial intelligence technology has also begun to enter colleges and universities, and plays an increasingly important role in the management of scientific research in colleges and universities. For colleges and universities, the construction of a perfect scientific research management system can not only fundamentally promote the development of experimental teaching quality, but also promote the achievements of colleges and universities in scientific research. Not only that, the level of scientific research management is also the standard to evaluate the quality of running a university. At present, the whole society has entered the era of artificial intelligence, and all kinds of artificial intelligence technologies have been widely and comprehensively used in people's production and life. At the same time, cloud computing processing technology, Internet technology, cloud storage technology also began to play an increasingly important role, these technologies will fundamentally bring about great changes in the management of scientific research in colleges and universities. Moreover, colleges and universities are important places for scientific research in our country, and the development level of colleges and universities is positively related to their own level of scientific research management. Therefore, high-quality scientific research management can ensure the smooth progress of scientific research in colleges and universities. Therefore, combined with the current level of social development, colleges and universities must attach importance to the application of artificial intelligence technology in scientific research management. At the same time, colleges and universities also need to give full play to the importance of artificial intelligence technology.

Keywords-Artificial intelligence technology; Scientific research management; Colleges and universities

I. INTRODUCTION

At present, the pace of China's economic development is getting faster and faster, and our country has more and more influence in the world. China began to enter the artificial intelligence society, and actively promote the application of artificial intelligence technology to all fields of human production and life. In addition, artificial intelligence technology has fundamentally promoted the development of productive forces in life. It also relieves the pressure on people to work. Therefore, in the future, artificial intelligence technology will become an important tool for human production and life. As far as colleges and universities in our country are concerned, we must firmly seize the new opportunities brought about by artificial intelligence technology, give full play to the advantages of artificial intelligence technology, and reform the management of scientific research in all aspects. This is also an effective measure to promote the development of management innovation in colleges and universities.
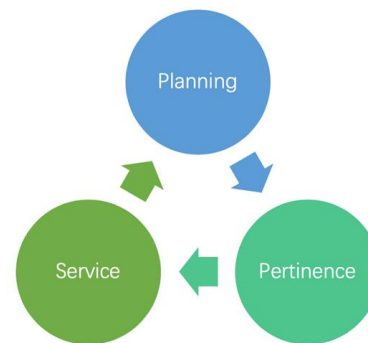

Figure 1. The characteristics of Scientific Research Management

II. PROBLEMS IN THE MANAGEMENT OF SCIENTIFIC RESEARCH IN COLLEGES AND UNIVERSITIES IN CHINA

A. Backward Collection Methods of Scientific Research Results

At present, in the management of scientific research in colleges and universities in China, the traditional manual input method and manual examination method are still adopted for the scientific research achievements of teachers and students. This way of collection is not only a waste of time and energy, but also likely due to the negligence and errors of operators, data errors, which also increases the workload of manual audit in the later stage [1].

B. Difficult to Achieve Data Sharing among Departments

There are different units and departments in colleges and universities in China, and the versions of their scientific research management systems are different. Therefore, different units and departments cannot share the information in the database. This is also prone to repeated collection, statistics and audit in different units and departments, thus increasing the workload of operators.

C. Imperfect Scientific Research Management Information System

At present, the popularization rate of the Internet is very high, most colleges and universities in China have begun to use the Internet for the construction of scientific

research management in colleges and universities. However, according to the research, it is found that the degree of informationization of management in colleges and universities in China is generally low. Moreover, although many colleges and universities have introduced Internet technology into scientific research management, they have not realized intelligence and need to rely on manual operation in many cases [2]. In other words, most of the collection and audit work is still inseparable from the operators, Internet technology is only to achieve the most basic retrieval and query functions.

D. Skills of Scientific Research Managers to be Improved

At present, the professional skills of scientific research managers in colleges and universities in China are uneven, which has seriously affected the quality and level of scientific research management in colleges and universities in China. Due to the poor level of professional skills of scientific research managers in colleges and universities in our country, many people are unable to do their own work well. Moreover, in essence, the core of scientific research management in colleges and universities is service. However, most scientific research managers are not deeply aware of the important role of scientific research management in the field of scientific research in colleges and universities, they only purely and passively collect and analyze data. Therefore, colleges and universities must strictly standardize the work attitude and style of scientific research managers.
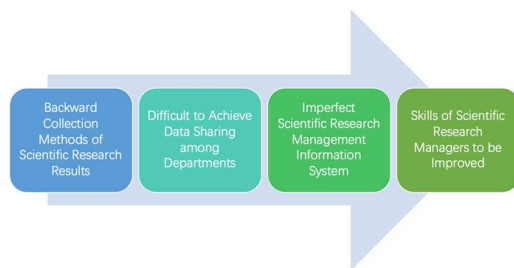

Figure 2. Problems in the Management of Scientific Research in Colleges and Universities in China

III. The Necessity of the Application of Artificial Intelligence Technology in the Management of Scientific Research in Colleges and Universities

A. The Inevitable Needs of the Development of Colleges and Universities

At present, our country pays more and more attention to education, and our country invests more and more in higher education. At the same time, the evaluation of the comprehensive strength of colleges and universities also focuses on scientific research. In other words, the comprehensive ranking of colleges and universities mainly depends on the level of scientific research achievements of colleges and universities. In the era of artificial intelligence, the school-running mode of colleges and universities in

China has gradually developed from the traditional teaching model to the innovative development model. At present, colleges and universities need to closely combine scientific research management and artificial intelligence technology, so as to achieve their own development innovation, scientific and pre-evolution [3]. From the strategy of "strengthening the country through science and education" to the slogan of "developing innovative national construction" put forward by our country at present, this shows that our country pays more and more attention to higher education and scientific research, and pays more and more attention to the cultivation of innovative talents in our country.

B. The Inevitable Requirements of Improving the Self-level of Colleges and Universities

Colleges and universities are the main training base for high-quality talents in China, and they undertake the important task of transporting all kinds of high-quality talents for our country. Combining artificial intelligence technology with scientific research management in colleges and universities, it not only promotes the improvement of the scientific research level of colleges and universities in our country, but also promotes the innovation and construction of all kinds of professional disciplines in colleges and universities in our country to a certain extent. All these directly improve the comprehensive strength and innovation level of colleges and universities. In the era of artificial intelligence, colleges and universities use artificial intelligence technology to promote the development of scientific research management, so as to promote the innovation and optimization of China's teaching model, and show the latest scientific research results to the students. This can broaden the horizons of students, improve their ability to use artificial intelligence technology, and cultivate and develop students' innovative thinking.
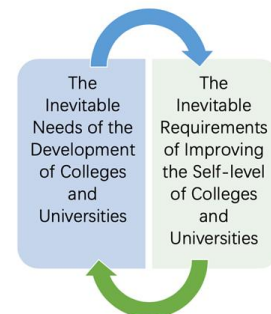

Figure 3. The Necessity of the Application of Artificial Intelligence Technology in the Management of Scientific Research in Colleges and Universities

IV. Application of artificial Intelligence Technology in Scientific Research Management in Colleges and Universities

The application of artificial intelligence technology in scientific research management in colleges and universities is to combine artificial intelligence technology with

scientific research management technology in colleges and universities, and to use artificial intelligence technology to process and analyze some information. Artificial intelligence technology is the product of the current era, it has gradually entered a variety of industries in human society, and plays an extremely important role. Among them, the application of artificial intelligence technology in scientific research management in colleges and universities mainly has the following three aspects.

A. Improving the Pertinence of Scientific Research Topic Selection and Application

For the management of scientific research in colleges and universities, the topic selection and application work of scientific research in colleges and universities is undoubtedly an important cornerstone of scientific research, and only high-quality scientific research topic selection and application work can promote the success of scientific research work. However, at present, in the process of selecting and applying for scientific research topics in many colleges and universities, they often collect topics from a certain range and select them first, and then issue some corresponding research guidelines. Then they will hand over these topics to the scientific research team for scientific research work. However, such an approach often leads to duplication of scientific research topics between different regions. Moreover, this way often makes the topic selection limited to a very small range, which also leads to the scientific research team is unable to carry out scientific research according to the social hot spots and social needs. However, the emergence of artificial intelligence technology has also provided an advanced scientific research background for scientific research in many colleges and universities [4]. This enables more researchers to collect social needs and social hotspots through artificial intelligence technology, so as to determine more targeted scientific research topics and declaration, and effectively prevent the repetition of scientific research topics in different regions.

B. Establishing an Efficient Academic Supervision System

At present, the management of scientific research in colleges and universities began to attract the attention of the society, many colleges and universities also tried to build a set of perfect scientific academic supervision system. For example, when publishing an academic paper, checking weight is an extremely important step. However, in the past, due to the limitations of the scientific level, the effect of checking the weight of academic papers is not very ideal. As a result, there are still a series of plagiarism in the academic circles of our country. However, with the emergence of artificial intelligence technology, people began to combine artificial intelligence technology with scientific research management to build a set of scientific and strict academic supervision system. It can be said that artificial intelligence technology can collect a large number of databases and has the characteristics of high accuracy, which makes the weight checking system more perfect and greatly reduces the probability of student plagiarism.

C. Improving the Efficiency of Scientific Research

In the process of scientific research, effective data can promote the efficiency of scientific research. Therefore, how to collect real and effective information and data efficiently is an important part of scientific research. Artificial intelligence technology can analyze and process a large number of data and information, so as to provide effective and real data for scientific research and improve the efficiency of scientific research. In addition, the combination of artificial intelligence technology and scientific research management also enables the scientific research team to quickly understand the real needs of the current society at a lower cost, so as to make the scientific research work keep pace with the times and meet the needs of the people.
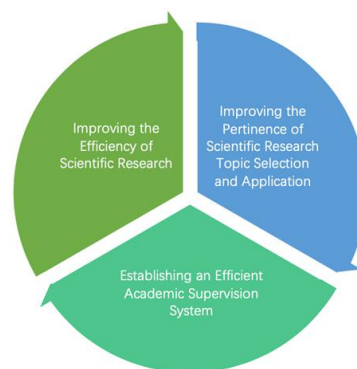

Figure 4. Application of artificial Intelligence Technology in Scientific Research Management in Colleges and Universities

V. CONCRETE MEASURES TO STRENGTHEN THE APPLICATION OF ARTIFICIAL INTELLIGENCE TECHNOLOGY IN SCIENTIFIC RESEARCH MANAGEMENT IN COLLEGES AND UNIVERSITIES

Artificial intelligence technology is an important label in the current era. In the era of artificial intelligence, in order to promote the application of artificial intelligence technology in scientific research management in colleges and universities, we must take scientific and efficient measures, including the following four aspects.

A. Strengthening the Construction of Scientific Research Management team in Colleges and Universities

With the advent of artificial intelligence technology, the level of scientific research management team in colleges and universities is getting higher and higher. Therefore, the scientific research management team in colleges and universities has also put forward higher standards for collecting, collating and analyzing data. However, judging from the current situation, most of the scientific research personnel in colleges and universities still have some personnel with poor professional ability, and the personnel with high scientific research level are basically rare [5]. Therefore, in the era of artificial intelligence, if colleges and universities want to improve the level of scientific research

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management, they must attract more outstanding talents with professional ability and professional quality, and carry on the professional training to the scientific research personnel.

B. Strengthening the Construction of Scientific Research Management Infrastructure in Colleges and Universities

Infrastructure is the material basis for the development of scientific research management in colleges and universities, especially in the current era of artificial intelligence, infrastructure needs to be paid more attention to. Therefore, colleges and universities in China must strengthen the construction of scientific research management infrastructure. Colleges and universities in China not only need to increase investment in scientific research funds, but also need to pay attention to the purchase of hardware and software facilities related to scientific research management, so as to give better play to the importance of artificial intelligence technology in the era of artificial intelligence.

C. Strengthening the Integration of Network data Resources

The data resources on the Internet are the main basis for scientific research in colleges and universities. In order to give full play to the role of artificial intelligence technology in the management of scientific research in colleges and universities, colleges and universities must strengthen the integration of network data resources. And the use of artificial intelligence technology to build a special construction for scientific research artificial intelligence data processing platform. In the process of scientific research, with the integration of artificial intelligence technology, researchers can efficiently search for real and effective data on the Internet.

D. Strengthening the Publicity of Artificial Intelligence Technology

Because artificial intelligence technology appeared for a very short time, and many people also have traditional ideas, do not use to accept new things. At present, there are still many scientific research managers are not used to using artificial intelligence technology to strengthen the management of scientific research work. This means that colleges and universities must begin to vigorously promote and promote artificial intelligence technology, and regularly require researchers to watch and learn videos and lectures related to artificial intelligence technology. In other words, colleges and universities should publicize the application of artificial intelligence technology in scientific research management from many aspects, let more researchers accept artificial intelligence technology, and use artificial intelligence technology scientifically and reasonably in scientific research work [6].
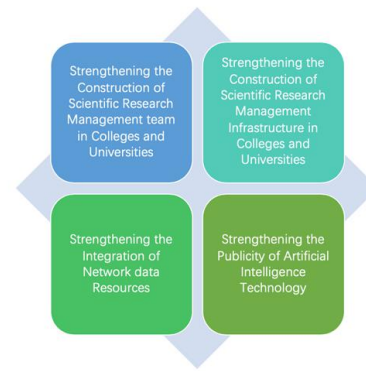

Figure 5. Concrete Measures to strengthen the Application of artificial Intelligence Technology in Scientific Research Management in Colleges and Universities

VI. CONCLUSION

In a word, the application of artificial intelligence technology is not only the general trend of the development of the times, but also an important tool for human production and life in the future. Therefore, at this stage, we must give full play to the advantages of artificial intelligence technology, reform and innovation of scientific research management in colleges and universities. Only in this way can we make the scientific research management of colleges and universities develop in the direction of innovation and pre-evolution, and make the scientific research achievements of our country create resplendence again.

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