

Research on the Application of Artificial Intelligence in the Construction of University Intelligent Library

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Abstract: With the continuous progress and development of society, artificial intelligence, as a new information technology gradually developed in the Internet technology, has an increasingly wide range of applications. It can simulate the thoughts and actions of the human brain through computer information technology to achieve the accurate processing of data. The combination of artificial intelligence and the construction of intelligent libraries in Colleges and universities can further promote the continuous development of artificial intelligence, At the same time, it can promote the further intellectualization and modernization of university library construction. In this paper, the author starts from the interpretation of the connotation of artificial intelligence and University intelligent library, discusses the relationship between them in detail, and deeply analyzes the application value and application status of artificial intelligence in University intelligent library, in order to promote and improve the application of artificial intelligence in the construction of University Intelligent Library.

1. Introduction

Artificial intelligence is more and more widely used in modern society. With the continuous change of people's needs and the continuous improvement of economic level, people's pursuit of culture is becoming higher and higher. The smart library built with artificial intelligence as the core can meet people's desire for culture and provide more humanized services for people. The construction of artificial intelligence library takes the Internet of things as the technical support point, supplemented by advanced modern electronic equipment, to build an information-based modern library. It is very necessary to apply artificial intelligence to smart libraries, which will be analyzed in detail below.

2. Overview of artificial intelligence and Intelligent Library

Artificial intelligence was first proposed in the mid-20th century. Modern artificial intelligence is a humanized and modern smart library built with the Internet of things as the technology center, combined with cloud computing, big data and AI technology. The maturity of artificial intelligence has liberated the human brain. It can imitate the human brain and deal with some social problems, including new technologies such as language calculation, data statistics and calculation, intelligent

search and automation technology, which have created favorable conditions for the development of human civilization. With the development and wide application of artificial intelligence, its application in various industries is more flexible, which can help people build a more systematic modern smart library. The construction of Smart Library was proposed around 2003. Smart Library has the ability of perception and intelligent processing technology. It relies on the Internet and modern information technology ^[1]. The integration of artificial intelligence and smart library represents the deepening application of artificial intelligence. Smart Library has a number of technologies, which can not only sort out and summarize a number of resources, greatly reduce the application of manpower, improve the efficiency of library construction, but also provide users with more accurate and accurate search services. In the smart library, users can search according to their own needs, and can search anytime and anywhere without time and space constraints. Compared with traditional library management technology, artificial intelligence has strong computing power. It can calculate the data in the system and realize the dynamic management of book information. According to the results of calculation, it can infer the trend of library construction and management in the later period, and adjust it according to its management and construction characteristics. Modern library has not only commercial value, but also educational value. With the development of artificial intelligence, the functions of the smart library will become more and more perfect, and will continue to change and innovate with people's needs. In modern times, many people do not want to go out to physical stores, but obtain resources through terminal devices for charging and learning. Therefore, the Smart Library has changed people's needs and facilitated people's lives ^[2].

3. Application of artificial intelligence in the construction of intelligent libraries in Colleges and Universities

3.1 application value of artificial intelligence in the construction of intelligent libraries in Colleges and Universities

With the mature development of artificial intelligence technology, the application of artificial intelligence in University intelligent libraries is becoming more and more extensive. From the current development situation, more and more university libraries have used artificial intelligence to develop and improve the analysis and processing of library databases to varying degrees. With the continuous improvement and development of digitalization and information technology, The construction and development of Virtual Library in Colleges and universities marks that the application of artificial intelligence in university libraries has entered a new stage. Specifically, compared with the traditional library construction, the application construction of artificial intelligence and University intelligent library has the following application values:

First, artificial intelligence can promote the effective integration of educational resources. With the development and progress of society, the educational resources of university libraries are gradually showing a diversified trend. Strengthening the application and development of artificial intelligence technology in University smart libraries ^[3], it can realize the informatization and personalized promotion of library resources of different professional students based on the needs of students with the support of automation technology. With the continuous improvement and development of smart libraries, A variety of educational resources take on a variety of forms. The combination of Smart Library and artificial intelligence can help students and faculty members get multiple reading experiences of audio-visual integration through the integration and development of educational resources, further improve the database type processing of Smart Library in the direction of artificial intelligence, and effectively integrate educational resources in colleges and universities, So as to realize the effective promotion of the service concept and mode of university library.

Secondly, the application of artificial intelligence in University intelligent library can meet the personalized needs of different users for library resources. The construction of high-efficiency Intelligent Library under the application of artificial intelligence is developed by relying on Internet technology. In the process of establishing and improving the data platform, users can log in to the intelligent library to effectively retrieve and save university resources through artificial intelligence search. This intelligent processing mode can further help students of different majors to build a special database platform according to their retrieval data and search records, To promote the effective integration and promotion of College Students' professional knowledge, so as to help students improve their professional competence and professional literacy.

Finally, the application of artificial intelligence in the University intelligent library can also meet, integrate and share the library book resources according to the needs of readers ^[4]. In this stage, readers are not only effective users of library resources, but also resource providers. Users' use and retrieval of the retrieval system in the smart library can help the library further integrate and improve book resources. In addition, college students can also effectively feed back and make suggestions on the required information through the database built by the smart library, To realize the continuous improvement and development of the University Smart Library. So as to promote the continuous enrichment of educational resources in Colleges and universities, and then promote the long-term development and promotion of colleges and students themselves.

3.2 research on the application of artificial intelligence in the construction of University Smart Library

3.2.1 Application of artificial intelligence in resource collection, classification and security management of University Intelligent Library

Smart Library is a huge database platform. During the operation of this platform, the application of artificial intelligence can realize the collection, classification and security management of resources. First of all, in the resource classification stage, artificial intelligence is mainly used to intelligently classify some electronic archives. In this process, artificial intelligence is required to be able to prepare and understand human language patterns and systems, so as to achieve accurate analysis of grammar, words and semantics in human language. Through analysis, different electronic archives can be automatically distinguished and sorted according to the artificial intelligence management mode, and special database resources can be automatically generated, Realize the perfect transformation from manual browsing to intelligent search; In terms of intelligent classification of resources, artificial intelligence can automatically retrieve and identify resources according to the language types of different resources, and analyze and process the specific contents of resources. Through the promotion and application of natural language understanding system in artificial intelligence technology, it can quickly and accurately realize the integration and classification of existing resources, and establish a special archive and resource subject database. Through the application and practice of artificial intelligence, When university teachers and students search and analyze in the smart library, artificial intelligence can present a variety of search results accurately and quickly according to the search, and realize the revolutionary transformation from manual to intelligent; In terms of security management of archive resources, the artificial intelligence system can identify and protect digital archives and resources in real time. In this process, the identification modes in the artificial intelligence system include voiceprint, fingerprint and other series of identification modes, which can ensure the security of real resources. In the process of transmission and processing of digital resources, the storage space of the centralized storage mode will be seriously insufficient, With the continuous improvement and maturity of technology, the application and promotion of archive cloud in

artificial intelligence can meet the integration and improvement of resources in University smart libraries, so as to realize the effective and safe management of digital resources [5].

3.2.2 Research on the application of artificial intelligence in identity authentication of University Intelligent Library

The University Smart Library is a comprehensive intelligent data platform serving university teachers and students. At present, campus cards and fingerprint identification are widely used in the identity authentication of university libraries to achieve identity authentication. With the application and development of artificial intelligence in the University Smart Library, most of the network data platforms of the University Smart Library log in as job numbers and certificate numbers, In the stage when the innovation and development of artificial intelligence are gradually maturing, face recognition technology, as an advanced identity authentication system, has been gradually popularized in Colleges and universities. This new identity authentication method needs to be completed through several steps in the application process. The first step is to collect the identity information and faces of teachers and students, and will use the artificial intelligence system for recognition. Through the recognition and data extraction of face features, Further build a database to help identify. After completing the identity authentication, it will be stored in the authority authentication of the Smart Library to form a database. When college teachers and students enter the library again, they can complete the identity authentication in one second or even less by simply pointing their faces at the screen. On the one hand, this new authentication method can solve the embarrassing situation that some students forget to bring their cards, and realize barrier free reading for college teachers and students, On the other hand, it can promote the high-speed improvement of the management efficiency of university library managers, and provide effective technical support for the optimization and development of University Smart Library.

4. Conclusion

To sum up, artificial intelligence technology has a very wide application space in the construction of smart libraries in Colleges and universities, and provides all-round technical support for the service construction and security construction of smart libraries in Colleges and universities. Therefore, the application and development of artificial intelligence should be continuously strengthened and improved in the construction process of smart libraries in Colleges and universities, which can further promote the resource integration efficiency and service quality of smart libraries in Colleges and universities, So as to promote the long-term development of colleges and universities.

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