Application and Research of Computer Big Data Based on Structure in Internet Learning

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Abstract: In recent years, the rapid development of the Internet and information industry has promoted the related technological development and innovation, and brought mankind into a new era of big data. Big data provides a great convenience service for people. It can not only realize the sharing of resources, but also enable people to obtain a large amount of information. The study and application of the Internet is becoming more and more important today. Computer big data, a technology closely related to the development of the Internet, plays an important role in Internet learning. The continuous popularization of the Internet and the continuous improvement of its speed have narrowed the distance between people and made various information knowledge more concentrated and rich. Big data can promote significant improvements in Internet learning efficiency with its own capabilities. Applying big data technology in Internet learning can help learners to acquire knowledge more quickly and conveniently, and can also continuously enrich the application of big data.

1. Introduction

Computer big data is a big term of massive information, it can provide people with very rich resources. Break the past by geographical, spatial and time constraints of learning and communication methods [1]. There are huge opportunities and values hidden in big data, which will bring about revolutionary development in many fields. With the continuous popularization of the Internet and the continuous improvement of its speed, the distance between people is narrowed, and all kinds of information and knowledge are more concentrated and abundant, which makes people's learning more convenient [2]. Domestic large educational institutions and educational chains have devoted 100% of their energy to the development of their own scientific systems, using large data to build a rich and diversified learning resources, user-friendly and simple operation of the Internet learning platform [3]. Big data can promote significant improvements in Internet learning efficiency with its own capabilities. Such as data mining, collaborative filtering, machine learning and automatic recommendation. In this way, the majority of users can follow the learning behavior record. Big data can improve the efficiency of Internet learning by using advanced data mining, machine learning, collaborative filtering, and automatic recommendation [4]. For example, it can automatically recommend similar courses according to the user's learning behavior record, and can also record the student's learning progress [5].

As a very important part of the computer application field, the advantages of online teaching are obvious, and learners can talk to famous teachers without leaving their homes to develop a unique learning plan. Big data doesn't just mean mastering huge data information and professional information processing capabilities. It gradually affects people's way of life, work style and way of thinking, and also provides a new opportunity for education and teaching reform [6]. The Internet has also generated a large amount of information while strengthening communication. The explosive
development of this information has promoted the development of big data technology. In computer applications, online learning has always been an important field, and major companies have realized the development of multiple learning systems [7]. The application of computer large data learning, which is exclusive to the network, can also mine multiple information, and has the function of automatic recommendation. It can accurately record the learning situation of users and generate reports [8]. The application of big data technology in Internet learning can help learners acquire knowledge more quickly and conveniently, and also enrich the application of big data [9]. All these have greatly improved the interest and enthusiasm of learners, and can greatly improve the quality and efficiency of learning.

2. Main Application Ways of Internet Learning before Computer Big Data

2.1 Advantages of Big Data in Internet Learning
In Internet learning, large data can quickly accumulate large amounts of learning habits and resources in a short time. It can also actively mine effective learning data and filter out useless data to accumulate resources in Internet learning by using advanced big data application technology. Massive data has changed the way data are organized and used, forcing enterprises and companies to change their business models, and also changing the educational model of colleges and universities. If the Internet Teaching Based on the big data of computer can not realize the interaction and communication between teachers and students, the effect of learning will be greatly reduced. The teaching resources on the Internet are extremely rich, and people can choose the learning resources that suit them according to their needs and hobbies. Big data can take advantage of its own digital technology, through the process of learning online, through data mining and in-depth exploration. You can post your own learning experience and experience on the Internet, let other interested people download the data, and promote others' progress.

One of the important reasons why computer big data is so popular in Internet learning applications is that network technology can provide quantitative information. The development of research-based universities is inseparable from the cooperation with other universities in the world. The Internet links colleges and universities around the world. Scholars from different fields in different universities work together to produce more useful scientific research information through professional integration. In the actual Internet teaching process, a variety of information can be obtained from the network, and various subject knowledge is also rich. It is more convenient to use the Internet for online learning. The learner only needs to register to enter the learning platform, and can choose the teaching course according to his own needs. With regard to the database of Internet learning resources, we can collect knowledge of various disciplines on the Internet. In the era of big data, all information in universities can become data. The generation of data is not based on the will of the data producer, or even unintentionally generated by the data producer. Students only need to input keywords related to the information they want to get, and they can see a lot of information and knowledge points related to it.

2.2 Internet Learning Method in the Age of Big Data
The greatest characteristic of network communication is the existence of connection. Mobile communication network is rich in data types. According to the mode and function of data generation, it can be divided into network setting parameter data and network operation result data. Data cleaning is carried out from the analysis of abnormal node training data and extracted parameters, and then data generalization is carried out to determine the possibility of the data being sampled and detected appearing in the model. Figure 1 shows how big data reshapes the structure of Internet communication.
As big data technology continues to develop and apply to the process of Internet learning, it has gradually formed a relatively complete application process. For students, the same learning resources can be obtained in time through the automatic search on the Internet learning platform according to their own needs. The data can effectively record the student's learning progress, even if there is a breakpoint or other disruptive learning process in the middle, big data can record this in the first time. Teachers can also put these resources on the big screen in teaching, even if they are quick and diversified, which helps to expand students' horizons. In the process of continuous development, the Internet and big data technology are also constantly improving and perfecting. Internet learning can use search engines to provide learners with a search service function. Students only need to input a key word of expected knowledge or an exact content number, and then click the search button. Online learning platform can guide students to carry out valuable and breakthrough learning through the potential valuable knowledge points and points of online data mining.

3. The Application Process of Computer Big Data in Internet Learning

In the era of big data, the above characteristics have brought about many changes and a series of impacts on computer network teaching. After information acquisition, different types of knowledge can also be integrated and classified to make a systematic division. The development of big data technology makes the storage and processing of information more convenient. Learners can give full play to their imagination and ask various questions. There will always be teachers on the Internet to answer your questions. The innovated large data online learning platform can classify the existing knowledge points more clearly, collect many subject knowledge points online, integrate resources, and preprocess and pre-organize these knowledge at the same time. The way of process integration can realize the timely updating and effective integration of learning resources. Students can find a wealth of resources through a single point, or through time selection. In the era of big data, computer network teaching resources are extremely rich, there are excellent courses of other famous teachers, the implementation of network projects with IT company's first-line technicians, and the latest foreign network technology materials.

After continuous upgrading and evolution, computer big data has entered a new technology end and field, and even a special computer new technology has been available. The means and methods used by Internet education to help students learn are becoming more and more abundant. A common Internet learning model can be described as a "catalytic reaction", as shown in Figure 2.
Social tools can provide a real-time communication and offline communication service. For example, students can find students with the same hobbies according to their own interests, and then form a study group. In the online world, everyone becomes a teacher and can pass on their knowledge to others. There will be a lot of relevant knowledge in the search engine, and learners can get more knowledge through a single point to different fields. Compared with the traditional learning mode, the application of computer big data in Internet learning can be popularized and welcomed. The key factor is its look-back and on-demand function. Intelligent technology platform should be installed in Internet learning. Users are regarded as the core of the platform, and different processing platforms based on different data systems and learning modes are established. The era of big data brings new opportunities and challenges to the reform of computer network teaching.

4. Conclusion
In the era of big data, computer network teaching is inevitably impacted. Faced with the impact, computer network teaching must achieve innovative development. With the rapid development and improvement of big data technology, valuable knowledge can be excavated and retrieved from massive network platforms. Internet learning platform has accumulated a large amount of data, and the distribution of these data is chaotic. Improving the Internet learning platform based on big data can filter out unrelated and low-quality learning resources and actively promote valuable learning resources for students. The application forms of big data in Internet learning are mainly manifested through online live broadcasting, interaction, search and so on. Learning the methods and institutions for learning is one of the main points that can open up the learning motivation of students and improve the latest learning mode of the sublimation students. Users can repeatedly play the pictures to be learned according to their own needs, and deepen their understanding of knowledge. At the same time, you won't be able to learn because you missed the time of the live lecture. On the basis of big data, through the improvement of the Internet learning platform, low-quality and unrelated learning resources can be eliminated in time, so that students can actively push high-value resources.

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