Research on the Construction of Translation Discipline Based on Cloud Computing and Big Data Analysis Technology

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Abstract. With the increasing growth of translation discipline, the application scope of cloud computing and big data analysis technology in English translation discipline is gradually expanded. Due to its large vocabulary and wide coverage, the translation discipline needs to use cloud computing technology to carry out professional calculation and integration of professional information, so as to summarize the translation knowledge into an overall framework, and build an overall translation learning system by using data analysis technology to guide students' learning dynamics, learning direction and learning needs. Give full play to the practical role of cloud computing and data analysis technology, Cloud computing and big data analysis technology integrate and promote each other. Cloud computing technology can make the data analysis structure more convenient and efficient, promote the quality of data analysis and promote the application depth of data analysis in translation discipline.

Keywords: Cloud computing technology · Big data analysis technology · Translation discipline · build

1 Introduction

With the application of cloud computing technology and big data analysis technology, the pace of translation discipline construction is further promoted. According to the needs of modern translation disciplines, more intelligent and accurate technologies need to be used to process translation data and information efficiently [1]. From the overall scale of translation data, it can be seen that translation data has a large amount of data information. Relying solely on traditional computer or multimedia processing means and speed can no longer meet the actual needs of translation discipline construction. Therefore, two high-end information processing technologies, cloud computing and big data analysis technology, should be used to process the data information in a certain time and calculate the results accurately [2]. General data information presents large-scale, diversified types, intensive value and so on [3] (Fig. 1).
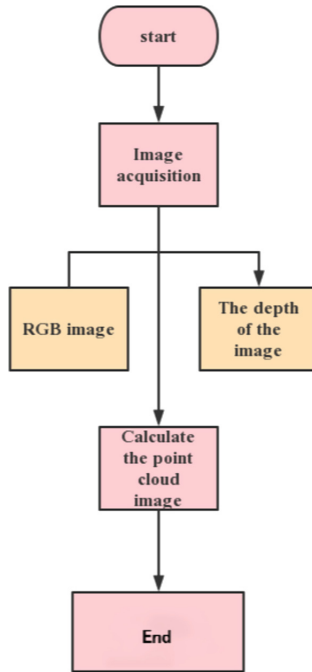
Fig. 1. Data image acquisition (original data)

However, in the process of application, the traditional data processing technology is also being improved and optimized. When cloud computing and big data analysis technology are applied to translation, system optimization should be carried out on the traditional data processing technology. Cloud computing platform and data processing center are formed based on traditional data processing technology. Cloud computing platform is mainly to ensure the service platform of big data technology, maintain the normal operation of big data analysis system and optimize data processing process [4]. Cloud computing technology provides flat and background support for big data, and big data is mainly responsible for collecting the information of each data port and preprocessing the information. In order to facilitate the later system calculation, it is necessary to standardize all kinds of data and information formats, so that the computer results can be quickly obtained and fed back to users [5] (Fig. 2).
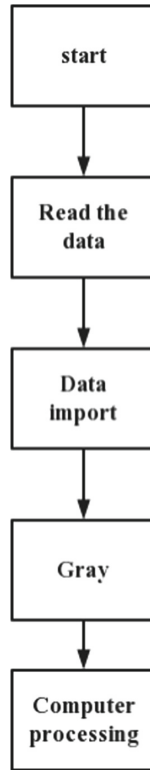
Fig. 2. Software translation system (original data)

2   Cloud Computing and Data Analysis Translation Framework

With the comprehensive construction of translation discipline, data information is also increasing. Computer processing technology can not carry out efficient and accurate information processing, so it needs to be applied to cloud computing and data analysis technology [6]. In the process of the construction of translation discipline, we need to continuously conduct a comprehensive collection of learning processes, and then more quickly design information processing technology with practical effects, so as to improve the quality of the construction of translation specialty and improve the overall efficiency. Different technical requirements are required in the process of information processing [7]. For example, in the preprocessing of data information, the overall structure of the data will be disassembled and the format will be unified. In the data stage, it is necessary to denoise and de format information. For some data with special encryption, it is also necessary to decrypt before proceeding to the next step. In terms of data analysis of translation discipline, there are many big data analysis systems on the market, which can provide professional digital products and system services for colleges and universities [8]. With the data analysis system, we can comprehensively deepen the mining of information and batch process information under the condition of large amount of
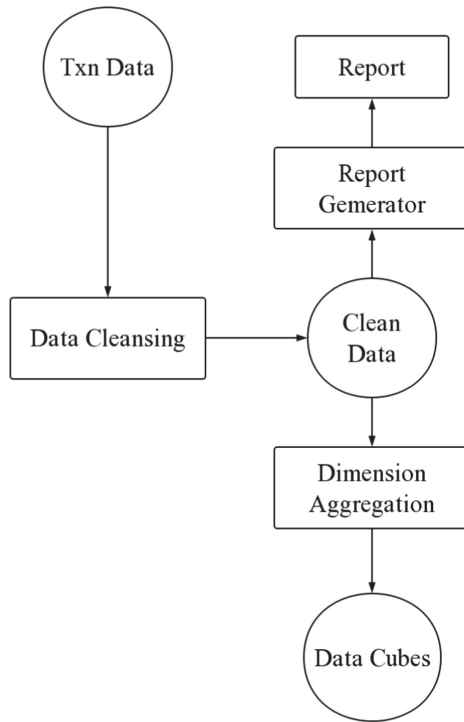
Fig. 3. Data neural algorithm (original data)

data. Finally, the calculation results are intuitively displayed to users through various expression forms (Fig. 3).

3   Data Analysis Framework

Due to the rapid growth of network information, all kinds of data information show explosive growth. The correlation between these data information is strong, and the difficulty of sharing information is also increasing [9]. Therefore, higher requirements are put forward for data analysis. Therefore, cloud computing and big data analysis technology are used to systematically design the traditional translation database in the process of translation discipline construction, so as to comprehensively improve the system translation technology [10]. The use of big data analysis technology can simplify the analysis of highly correlated data information, so as to improve the speed of information processing and the overall development level, and provide high-quality technical support for the construction of translation discipline. The framework of big data analysis is mainly divided into the following six important parts:

3.1   The First is the Goal of Data Analysis

Different from the association, classification and clustering of data mining technology, data analysis is more inclined to solve practical problems [11]. The goal of data analysis
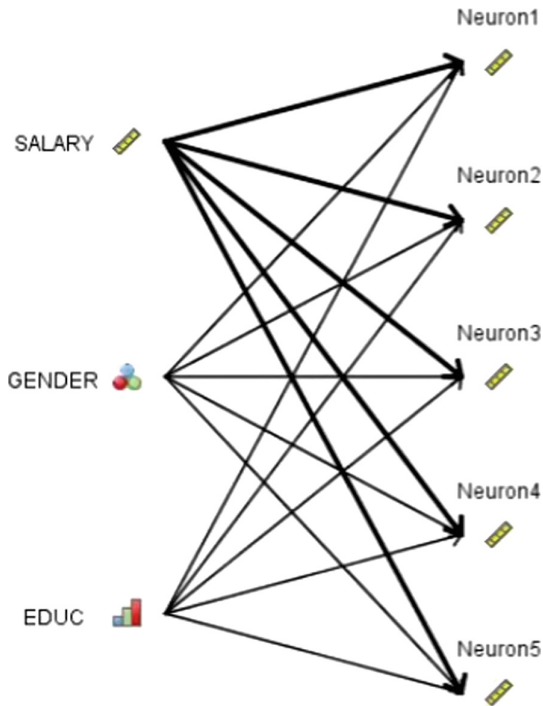
Fig. 4. Data calculation standard (original data)

is mainly to apply it in the fields of product design, education and teaching, commodity sales and so on according to the needs of users.

3.2 Data Collection

The first difference between data analysis and data mining is the data source [12]. The data of data analysis may come from various channels, databases, information collection tables, visits and other forms of data. As long as it is related to the analysis objectives, it can be collected. Data mining is biased towards reading database data (Fig. 4).

3.3 Data Cleaning

Because the data source of data analysis is more disorderly than that of data mining, you may find data from other people's analysis reports and search data from Baidu. The format and fields of these data are not unified [13]. Here, the system will classify and integrate information according to the needs of users.

3.4 Data Analysis

Data analysis is the most important key part of the whole big data analysis framework. Data analysis is related to data processing results and accuracy, so it occupies a great

position [14]. Data analysis should analyze and calculate the work situation, calculation objectives, investigation and research according to the actual needs of users, only to help people quickly obtain the calculation results and improve work efficiency.

3.5 Data Report

Data report is a systematic description of the calculated results, which can be presented to users in various forms of data expression. The use of data result display can strengthen the user's intuition of data information and deeply experience the high efficiency of information analysis.

3.6 Execution and Feedback

Data execution is to operate the system according to the set procedures and instructions, and process and filter the data at all levels [15].

In the process of processing, we should also pay attention to those problems that need to be solved, whether the calculation results meet the standard, whether the operation speed is efficient, and so on. For the processing process, timely feed back to the client and seek solutions [16].

4 Conclusion

Translation discipline can flexibly use cloud computing and big data analysis technology to build a good translation environment for students. Cloud computing provides a large number of controllable translation software and translation knowledge for the translation discipline, and provides guarantee for the knowledge accumulation and data operation of the translation discipline. Big data analysis technology is to use key technologies to summarize and analyze students' translation system and learning status, help students establish and improve English translation knowledge system and promote the further improvement of translation ability.

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