

Intelligent Modeling of Practical Teaching Quality Evaluation Based on Distributed Scoring Terminal Data Classification Algorithm

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Abstract: Research the data flow classification and mining algorithm based on decision tree, the research idea is to first describe the general decision tree; then focus on the implementation of the data flow decision tree VFDT algorithm, using the parallel computing of Twitter Storm distributed streaming computing framework and Yahoo SAMOA scoring Platform. Encouraging the design and development of smart courses has gradually become the focus of teaching work in major universities, and the construction of a teaching evaluation system for smart courses is the top priority of the work. Convert half of ordinary colleges and universities to vocational education. As an important link to ensure the teaching results of vocational education, practical teaching has become an important research field of teaching reform. How to improve the teaching quality of practical teaching.

Keywords: Intelligent Modeling, Practical Teaching Quality Evaluation, Distributed Scoring Terminal, Data Classification Algorithm

1. INTRODUCTION

Agriculture is the primary industry and plays an important role in national economic development and social stability. The development of modern agriculture is inseparable from the important support of scientific and technological talents [1]. It is cultivated in the development direction of agricultural modernization, rural revitalization, ecological environment governance and protection, etc. Talents in the new era are the tasks and responsibilities of agricultural colleges and universities in my country, and the reform of college education is always closely related to the change of social background. Since 1999, with the expansion of college enrollment, the employment of undergraduates has become the focus of college work [2].

In order to seek higher employment rate, the training structure of talents in colleges and universities is constantly adjusted to meet the needs of society [3]. The reform direction of the Ministry of Education in 2015 has made it clear that the term "smart education" is derived from "smart earth", which refers to promoting the sharing of high-quality educational information resources and improving the quality and level of education through the application of new-generation information technology [4].

"Smart Education" is an important means to enhance teachers' teaching ability and students' learning ability. (Jin Jiangjun, 2012) The author believes that smart education must meet the following characteristics in order to implement education: educate connotative development [5]. "As a half of higher education, the quality of talent training will be a major focus for improving the connotation of higher vocational education. In promoting the cultivation of high-quality technical and skilled talents, with the development of Internet applications, a large amount of streaming data is generated (Hereinafter, the general term "data stream" is used), which is different from traditional data at rest [6].

Data flow is massive, high-speed, and real-time. It contains a lot of information and can be used as the basis for intelligent decision-making [7]. Clustering algorithm will classify similar

objects into the same group according to the similarity between objects, it is an unsupervised machine learning algorithm [8]. In streaming data, data items flow continuously into the system in an ordered sequence. Clustering streaming data requires continuous analysis of the input streaming data and generating and maintaining the generated clustering groups in real time [9].

The concept of big data was first proposed in the 1980s, from the big data special issue of "Nature" in 2008. Its strong application requirements make it the focus of research and application in recent years [10]. In particular, the potential application prospects of big data have been concerned by the governments of many countries. Cultivating and mastering solid basic theories, possessing strong agricultural practice and operation capabilities, and having certain professional innovation capabilities are the main talents for talent cultivation in most agricultural colleges and universities. Goals and Criteria [11]. In 2015, the national "Overall Plan for Promoting the Construction of World-Class Universities and First-Class Disciplines" was issued [12]. Among the country's 1,200 general institutions of higher learning, more than 600 will turn to vocational education, accounting for 50% of the transition. To a certain extent, this reflects the changes in the demand for talents brought about by the transformation of the social industrial structure, and ultimately leads to changes in the structure of talent training. As the frontier of university reform, applied technology universities have become the focus of research on talent training [13].

Hardware and software to create a smarter teaching environment for teaching [14]. Hardware refers to the provision of corresponding equipment and technical support, while software refers to the formation of scientific wisdom teaching guiding ideology. For teachers' course teaching quality evaluation, the main body of evaluation is often secondary colleges, school academic affairs offices and quality office inspectors, and more is to check teachers' documents or students' achievements [15].

The evaluation indicators are mainly the teaching methods adopted by teachers. Traditional data mining methods are not

well suited for data stream mining [16]. Data stream classification poses many new challenges to traditional classification techniques. Since classification theory and methods are widely used in different fields, how to use limited computing resources to process real-time data flow information when mining a large number of data streams. [17]

2. THE PROPOSED METHODOLOGY

2.1 The Distributed Scoring Terminal Data Classification Algorithm

In the above model, "five-body" represents the following five aspects. First, the object of evaluation should pay attention to the whole process of practical teaching activities, centering on service and the progress and development of students in terms of knowledge, skills, and qualities. Whenever the algorithm receives a local-result content event, it will retrieve from the splitting leaves correct leaf l , then update the current optimal (X_a) and suboptimal (X_b) attributes. When all the local results are fed back to Model-aggregator PI, the flow clustering algorithm can be mainly divided into one-stage and two-stage.

In order to solve the problem that the CLU stream algorithm needs to know the number of cluster structures in advance, literature [9] proposed a density-based streaming data clustering algorithm. The advantage of this method is that it can deal with outliers and is suitable for changes in clusters; however, this method requires frequent offline processing in order to detect changes in outliers. Big data mining is also a cost-accuracy balance optimization problem, where in Improving the accuracy of distributed mining at a reasonable communication cost is one of the key scientific issues. The main strategy to reduce communication cost is to share statistics between nodes.

2.2 The Practical Teaching Quality Evaluation

The high-quality agricultural planting area is 26hm², the forest fruit seedling planting area is 4.43hm², the ecological pasture and field planting area is 225hm², and 15 electromechanical wells can be used. The road network in the park has begun to take shape. The south inner ring road and the north inner ring road, as well as the three main roads leading to various functional areas from south to north, have all been built as gravel roads. At present, the major in teaching evaluation is mainly summative evaluation. The evaluation takes the form of in-class tests, final works at the end of the semester, essays, etc.

This evaluation method is unable to mobilize the subjective initiative of students' learning. Required tasks: Each group needs to complete the translation skills summary of business letters within 2 weeks during the study of this module and analyze them with examples. Group members will evaluate each member's contribution to completing the task. Fourth, the participation of diverse subjects. During the internship, students complete their learning tasks and engineering practice on the outside construction site. Therefore, the students themselves, relevant on-campus instructors, students' parents, and corporate instructors are directly involved in and familiar with the whole process. These four parties have different perspectives and even interests as the same.

2.3 The Intelligent Modeling of Practical Teaching Quality Evaluation

The monitoring information should be standardized and processed to form decision-making instructions for the distribution of incoming water and the initiation of sprinkler

irrigation, and to provide basic data for research and experiments on water-saving irrigation. In the above model, "five-body" represents the following five aspects. First, the evaluation object should pay attention to the whole process of practical teaching activities, centering on the progress and development of service and students in terms of knowledge, skills, and quality. The running time is used to compare the execution speed of the algorithm. Since the nodes are all locally virtualized, it is ignored here. Storm node communication is time-consuming, ignoring events where different nodes execute duplicate data.

In the experiment, the number of Storm platform nodes is set to 3. The goal of this paper is to apply the distributed clustering algorithm to create and maintain a global clustering structure and make the global clustering structure similar to the clustering structure obtained by the centralized clustering algorithm. This paper achieves the above goals through serialization technology and local micro-clustering algorithm. Given the training data set T and the class identification set C , classification learning is to learn a classifier from T , and the classification algorithm is the description of the process of constructing this classifier.

However, the training data set of classification learning in streaming big data is collected dynamically over time. The evaluation system of smarter teaching is divided into three aspects: (1) Evaluate students' autonomous learning to obtain teaching feedback and arrange for adjustment of follow-up Teaching content. The evaluation system of smart teaching is divided into three aspects: (1) Evaluate students' autonomous learning situation, obtain teaching feedback, arrange, and adjust subsequent teaching content, parents of students and corporate instructors. These four parties have their own perspectives and even interests. The same, but jointly serve the students' overall growth in the post-internship stage. Therefore, their comprehensive evaluation is the most scientific and reasonable.

3. CONCLUSIONS

This paper proposes a two-stage distributed stream data clustering algorithm with high communication efficiency and analyzes the communication complexity and computational complexity of the algorithm. Due to the use of local micro-clustering, learning materials suitable for independent individuals are screened out in the era of information explosion. The teaching evaluation system can ensure the dominant position of teachers, ensure the effective progress of the teaching process, stimulate students' interest, ensure the development of learning activities, and at the same time play a role in monitoring and regulating the teaching process. This paper starts with the application requirements of big data and analyzes the application scope and potential application value of big data with distributed and fluid technical characteristics.

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