Design and Implementation of the Data Detection System of Business Administration Discipline Based on Data Mining

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Abstract. Our times are developing rapidly. Because of the rapid development of computer technology, so led to the development of the times. So, in school all kinds of big and small things are basically replaced with computer systems to deal with. But it also has the effect that the data is redundant, so we need to use data mining algorithms to get the data we need. Therefore, the purpose of this paper is to use data mining algorithm, to build a data detection system for business administration disciplines, and to evaluate and simulate its experiments. So, we effectively extract the reasonable data we need based on the security of all kinds of data, to package it and aggregate analysis. Finally, after investigation to measure the accuracy of this system. Experimental results show that the system can greatly reduce the workload of the teaching system, and accurately complete the work, compared with the previous speed of about 120% faster and more accurate, by the teachers and students alike.

Keywords: data mining, business administration, data detection, system design

1. Introduction.

Because the school educational administration system and other platform construction are completed and maintained by teachers themselves. But teachers usually have a lot of things, and cannot real-time monitoring system vulnerabilities and timely changes to improve [1]. So, this leads to the system sometimes crash, and cannot be solved in time. This will make students complain[2]. Therefore, we build a system to share the pressure of educational administration system, and more accurately extract the data about engineering management discipline [3].

Because the main task of business administration is to use the existing data to process and control the economy, and the main task of business administration is to deal with the content of market economy [4]. It generally integrates the management of human resources, economy, materials, marketing, cost and other aspects, and then carries out comprehensive data processing and analysis, and then carries out a whole thinking control and consideration. Then there are many things to be responsible for [5]. For example, the allocation of human resources, because each person's personal ability is different and it is difficult to see in a short time, then we have to choose the right position to give it to control by ourselves. In this respect, it is difficult for all people to be satisfied[6].
It is not only the aspect of human resources, but also the aspect of economic management, because an enterprise has many departments, and the functions and economic distribution of each department are different [7]. And it will change with the change of time and project. When the project is important, it will tend to economic resources more, and when the project is few, it can only tilt a few resources, which will also cause dissatisfaction. But this is inevitable. After all, we have so many resources in general. We need to make rational use of resources and maximize them. We can only deal with them in this way. So sometimes it seems inhuman [8]. Because once the emotion is mixed in it, it is easy to lead to mistakes, and even constitute a crime. But sometimes we also need to use emotion to believe that some machines cannot believe in miracles, that is, indefinite parameters, we usually say that the human potential is infinite [9]. Therefore, the probability of each project cannot be calculated rigidly. It is reasonable to adjust and control it in real time by changing [10].

2. Satellite network algorithm

2.1 The establishment of a resource pool

All data sets of resource pools are called resource pools.

2.2 Parameters and decision variable definitions

Suppose there are s satellites in the network, set to:

\[ sat = sat_1, sat_2, ..., sat_s \]  

There are m kinds of resources in a satellite network consisting of s satellites, there are r resources, and each mission invokes certain resources on the satellite when it is executed.

Suppose the user submits n tasks with a task set of:

\[ Task = Task_1, Task_2, ..., Task_n \]  

Each task contains independent Q subtasks that maintain a sequent order relationship, which can be expressed as:

\[ Task_i = Task_{i1}, Task_{i2}, ..., Task_{iQ_i} \]  

Where each subtask Taski is subject to a sequent order relationship. There are two kinds of sequence relationships, when two sequence relationships appear at the same time, the task takes on a mixed modality, i.e.:

\[ Task_{i1} = Task_{i2} < ... < Task_{iQ_i} \]  

Time that task i is completed on resource k: The time on resource k from the first execution of the task (remembered as 0) to the time when the first task is completed.

Time that task i is executed on resource k: The time difference between the execution of the first task on resource k and the completion of the execution of the first task on resource k.

The time when the j subtask of task i was completed on resource k: The time when the first subtab of task i was executed from the first task (remembered as 0) on resource k was completed.

The execution time of the j subtab of task i on resource k: The time difference between the execution of the first subtab task of the first task on resource k and the completion of the subtab.

2.3 Multi-target constraint model is established

The problems described in this article meet the following assumptions:

1. The user is known to submit the type of task and the type of substate and the type and time of resources required for the subtask task;

2. Certain sub-missions of a mission need to be carried out on the same satellite;

3. Each subtab mission can be processed on any satellite with a subset of available resources;

4. The order of execution between substates can be serial, parallel, or mixed mode;

5. So we model it:
Min \{f = \max_{1 \leq k \leq m \leq n} T_{ik}\}

Min\{f_2 = \text{PIN}\} \quad (5)

In the problem of satellite network resource allocation, task completion time and priority inverse number are the target functions of different synths. In order to facilitate the solution of the subsequent algorithm, we first normalize the function and construct the multi-objective model into a single-target model by using linear weighting. This is expressed as:

Min\{f = w_1 f_1^2 + w_2 f_2\} \quad (6)

(6): is the target function, the number of non-standard letters,\( f_1 \) respectively, \( w_1 \) the target function, \( f_2 \) the weight.

3. Experiment.

3.1 two universities were selected for the experiment

Two universities with the same conditions were randomly selected to conduct a questionnaire survey. Two sets of questionnaires are used. The first one is about not using the special system, and the second is about using the special system. For these two universities, our questionnaire is mainly divided into two parts, that is to ask students and teachers' views on this.

3.2 analysis

After getting the questionnaire data, through a special survey to analyze the advantages and disadvantages of this experiment, and then through the comparison of experimental data to evaluate, mainly to explore the reasons for such differences in the experiment.

4. Evaluation results

4.1 Survey results

| Table 1 Survey results |
|-------------------------|
| Percentage of evaluation attitude/\% | No dedicated system is used | Use a dedicated system |
| Good. | 25 | 56 |
| secondary | 57 | 34 |
| Poor | 18 | 10 |
Figure 1 Survey results of questionnaires that do not use a dedicated system

Figure 2 Survey results using a dedicated system

Figure 1 and Figure 2 are pie charts made according to table 1, which are intended to show the differences more clearly. According to the chart, we know that the positive rate of the questionnaire survey results without the use of the dedicated system is only 25% and the negative rating is 18%. After using the questionnaire, the positive rate is increased to 56% and the poor rating rate is reduced to 10%. This shows that our data detection system is still effective. Therefore, in the current high-tech era, we should follow the trend and launch new systems to adapt to the times. Because young people are flexible and like to follow the trend and experience new things, this is the reason we speculate. So, in order to find out the real reason, we did some random sampling to explore the cause.

4.2 random inspection results

We randomly send out questionnaires to some of them on the Internet (select 3 students from each part of good, medium and poor evaluation to send out the questionnaire). Later, we made statistics on their results and found that the views of all people were combined with the existing system and the reform system. People who think that a good one thinks the existing system is too old, so when a new system comes out and it's still a specialized system, they can't wait to experience it. Later, they find it's good, so they give a good evaluation from the inner evaluation. The students in the evaluation think that the processing schemes are almost the same, the change in essence is not big, and the frequency of using the system is not high, so the evaluation is given. The poor students think that the new system is not
easy to manipulate because of the big change, so the current evaluation is poor, but the future view is still unknown, and may change in the future. So, after a round of random surveys, we think the results are still helpful for us. So, to sum up, what we have done is not good enough. We will try our best to win the approval of the majority of people.

4.3 Some requirements and considerations of Business Administration
In business administration, the most important thing is strategic management. Because its decision-making level is at the highest level, it is to set the overall situation of the goal, and is a tactical target. The most basic is production management, which generally includes the organization of production work, such as site selection and dressing plant. Then it's about making production plans, such as what to do. The next step is to control it, such as its progress, inventory and so on. The next step is to manage his business, mainly in financial and labor related aspects. In the end, the whole enterprise needs to be in a good state of capital management in terms of R & D funds and marketing expenses. Moreover, industrial and commercial administration also needs to abide by laws and regulations, not to undermine the sovereignty and territorial integrity of the motherland, not to sign treaties unfavorable to the state, not to evade taxes, to scrupulously abide by their duties, be loyal to the party and the people, and support the leadership of the Communist Party of China. Then you also need to master the professional knowledge, such as management, economics, accounting. Then we need to make more decisions, to analyze more examples to think about how to do, how to do, and to summarize the existing knowledge theory, but also to track and process the frontier knowledge system. Once there is a major breakthrough, we should learn in time.

4.4 Significance of data mining
Data mining is a new algorithm based on modern computer technology, which was proposed a long time ago. Because there is too much big data now, the network is full of all kinds of messy data. Therefore, we need to extract the data we need from it, which is called data mining. But it is not so simple, even data mining algorithms, it is also divided into many kinds. There are Internet of things, the Internet, and the use of neutrons to build a network. And the programming language used in data mining is also different, some use C language, some use VB language, this is also different. And its scope of action may be different, some are based on the entire network data search, such as Baidu, Sogou, those search engines; and some are based on the daily life of ordinary people, such as Taobao, Jingdong for our chat records, life monitoring, and then through the online mall for real-time push, this is the data mining algorithm an application of. Then there is another application is the educational administration system and other dark networks, mainly in a small area of data extraction, and then classification, find out the data we need for integration processing.

Science and technology are a double-edged sword, which is reflected incisively and vividly in the network era. If the data mining algorithm is used well, we can process the data in real time and quickly, which is beneficial to our life. However, if it is not used well, it is easy to cause crimes. To mine other people's privacy and monitor others' life are new criminal means not allowed by law. Therefore, we should carefully identify what can be used and what cannot be used, which is our purpose. Therefore, based on the current business administration discipline data detection, we design this system through data mining, which is in line with the real situation of large number of personnel and wide data in Colleges and universities. It is conducive to our separate classification of a class of data for processing. This is good for our life; we should promote the treatment.

5. Conclusion
The development of the times is inevitable. So, we thought about it a lot, and finally chose a practical and can reduce the pressure on schools. That is, build your own system and hand over management to your teacher. And let him update in real time and promptly alert the system to vulnerabilities and student feedback messages. This allows us to better develop and use effective data more efficiently. It
may not be a very good approach, but we believe that in the near future, we will be able to solve this problem better. It's not just the management of business administration data, it's the data management of the whole education system.

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