Relevance Intelligent Analysis Software Design of Psychological Capital Prediction Algorithm Based on SVM Algorithm to Assist Education

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Abstract:Using this large-scale and complex data from the perspective of AI, and inferring students' learning needs by analyzing students' learning behavior data, psychological capital can significantly predict the psychological harmony level of military officers and soldiers, and can explain 30.3% of the variance of psychological harmony. Psychological capital has a partial mediating effect between emotional intelligence and psychological harmony, and the mediating effect accounts for 72.64% of the total effect. Provide students with different levels of claws beyond the basic content, biochemical learning content and assessment indicators, and the commonly used MHC prediction algorithms SVMHC and SYFPEITHI have better prediction accuracy. Influence of test data set size on test results.

Keywords: Relevance Intelligent Analysis, Psychological Capital Prediction, SVM Algorithm, Education

1. INTRODUCTION

At present, artificial intelligence technology is developing vigorously in various industries, and has been applied in many fields such as finance, insurance, retail, environmental protection, energy, etc., but it is rarely used in the field of adult education [1] adult education is still in the traditional teaching content-centered stage. Regarding the influencing factors of engagement, researchers pay more attention to individual factors and organizational factors, and mostly study the influence of a single factor. From the perspective of the fit between individual factors and organizational factors There is very little research literature on engagement [2].

Use Google Scholar to search foreign literature. Foreign research on psychological capital is relatively early, which can be traced back to the positive psychology movement initiated by American psychologist Seligman in 1998. Correct and beneficial positive psychology." Early entrepreneurship research is mostly from the perspective of economics, mainly from the standard economic model to analyze entrepreneurial behavior, assuming that the entrepreneur is a completely rational economic person [3], this type of research ignores individual differences, does not reveal the reasons for the differences in entrepreneurial outcomes. The idea of "harmony" has always occupied an important position in China. Social harmony and psychological harmony are consistent and are the core of positive psychology (Lin Chongde, 2007, 2012) [4].

Psychological harmony is the adjustment of one's own feelings and experiences in the process of dealing with various relationships and problems, in order to achieve a balanced psychological state (Shi Guoxing, Wang Ziwei, 2013) [5]. Subsequent experimental work is greatly reduced. Immunoinformatics is a new field of bioinformatics, and there are now a variety of suitable techniques for the search and prediction of T cell epitopes. Experiments have shown that peptides with a close binding relationship to MHC molecules are antigenic determinants of T cells [6]. Modern distance education is a kind of technology based on modern information. The students are mainly self-study. A new type

of educational technology supplemented by face-to-face tutoring. The Ministry of Education of the People's Republic of China has implemented the "Reform of Talent Training Model and the Pilot Program of Open Education" in the Central TV University [7].

It is modern distance education. So as to solve the problem of conflict between students and staff in early adult higher education. However, how should the pilot unit help or serve the students. Suykens et al. [8] proposed a least squares support vector machine (LSSVM) to solve the regression problem of nonlinear functions. LSSVM replaces inequality constraints with equality constraints on the basis of support vector machines (SVM), avoiding the time-consuming quadratic programming problem [9], and LSSVM can approximate nonlinear systems with arbitrary precision. In summary, it is mainly divided into two categories: traditional Predictive methods and artificial intelligence methods. Due to the development of science and technology, traditional forecasting methods cannot meet the current forecasting requirements. Therefore, artificial intelligence methods have become the main forecasting methods today [10].

Such as artificial neural network method, wavelet analysis algorithm, genetic algorithm and so on. The theories and methods of machine learning have also developed rapidly, attracting the attention of many researchers. At present, machine learning methods have been applied by researchers to data analysis [11], financial market analysis [12], medical diagnosis [13], computer vision [14], speech recognition [15], natural language processing [16], etc. Multiple practical application fields. With the disappearance of human dividends, extensive development has come to an end, and all walks of life are deeply tapping their potential.

The focus of the Open University's work in 2018 requires further promoting the reform of the "six-network integration" talent training model, promoting "network" changes in learning behavior, and improving the quality of education [17]." was searched for the title of the article, the result was 0, and the scope was expanded to search. There were only 3 related literatures with the title of "fit + engagement", 2 of

which studied the impact of individual-job fit on engagement, and the other is to examine the individual-organization fit as a moderator variable [18].

At present, there are more than ten definitions of "psychological capital" in foreign countries. According to the perspective of their definitions, they can be roughly divided into three schools: trait theory, synthesis theory and state theory [19]. Trait theory regards psychological capital as an inherently stable and durable trait of an individual. Entrepreneurs have special psychological qualities, and differences in the internal personality of different entrepreneurs lead to different entrepreneurial outcomes. Entrepreneurs' personal resources, personality characteristics and psychological quality determine the differences in entrepreneurship. Entrepreneurs' business ideals, professionalism and perseverance are very important [20].

2. THE PROPOSED METHODOLOGY

2.1 The SVM Algorithm

In the development of artificial intelligence. Algorithms, computing power, and data are the three basic driving forces, and the most difficult to obtain is data resources. The establishment of CDB Learning Network has paved the way for our data collection. From the connotation of individual-organizational culture fit, it can be seen that when employees perceive that the organization pays attention and support to their material and spiritual needs, they will realize the fit with the organizational culture. After analyzing the research results of domestic and foreign scholars, it is found that employee psychology has a directional influence on their work behavior, and the degree of this influence will be different due to the different knowledge background and rank of employees. Employees with high knowledge background or high rank are more obviously affected by their own psychology.

Maximizing the classification interval is actually the control of the generalization ability, which is one of the core ideas of SVM. Statistical learning theory points out that, in the |v-dimensional space, the samples are distributed in a hypersphere with radius R, and the polynomial or radial basis function classifiers are used for learning and training. It is based on the youngest part of statistical learning theory. At present, it is still in the stage of continuous development. As a classifier, SVM has high promotion performance and does not require prior knowledge. The research of SVM has received more and more attention in recent years. The function of the predictive model in nonlinear predictive control is based on the object. Historical information and future inputs predict its future outputs.

Whether the prediction model can reflect the characteristics of the object is directly related to the stability and accuracy of the controller. In addition, the performance of the ABC algorithm is very unsatisfactory when there are multiple local optimal solutions or valley circles around the full optimal solution of the objective function, which is easy to cause the population diversity declines, and the algorithm converges prematurely.

2.2 The Psychological Capital Prediction Algorithm-Assisted Education

Some mainstream open source communities also provide a lot of free resources for the construction of AI systems, and many open source data collection systems can greatly reduce the design difficulty of AI systems. Therefore, this study believes that when employees perceive the material or spiritual support provided by the organization, they will be confident and hopeful in their work and the organization, and when they encounter difficulties, the support from the organization will also help employees find better coping strategies. A large number of studies have shown that individual or partial psychological capital dimensions have an impact on job performance, and psychological capital as a whole also has an impact on job performance.

Because knowledge workers have similar mental states of other ordinary workers, and their psychological emotions have a more significant impact on their behavior. Under the constraints (2-5) and (2-6), if (2.4) is minimized, then The optimal classification surface in the case of linear inseparability is obtained, which is called the generalized optimal classification hyperplane. The distance between them is called the classification margin. The so-called optimal classification line requires that the classification line can not only correctly separate the two classes, that is, the training error rate is 0, but also maximize the classification interval. For a system with d-step delay, when the input is $u(k)$, the output is $y(k+d)$, using the past input and output of the system and the current $u(k)$, the predicted output of the system can be obtained from the LSSVM prediction model as $\hat{y}(k + d)$.

The input to be optimized is $u(k +1)$. In this paper, chaos search is introduced into the area search of observer bees to reduce the probability of falling into a local minimum. Compared with other optimization algorithms, it is found that the optimization effect of CABC algorithm is better. In the PSO algorithm, it is assumed that the flock of birds is flying for food in the D-dimensional search space of the problem to be optimized. where the position of each bird is a potential solution to the problem to be optimized. Each bird in the group changes its speed and position based on its position and the experience of other birds.

2.3 The Relevance Intelligent Analysis Software Design of Predictive Algorithm-Assisted Education

Psychological capital is an important factor in entrepreneurship and management to deal with the uncertainty of the modern market. Employees or managers with strong psychological quality can better face environmental changes and risks, thereby improving corporate competitiveness and performance. Because the final discriminant function of the support vector machine actually only includes the inner product and summation of the support vectors, the computational complexity during identification depends on the number of support vectors. The smaller the number of support vectors, the faster the recognition speed. According to the historical data of the HVAC system or the input and output data obtained by sampling the HVAC system, a sample set is formed.

Then, by detecting the ultrasonic signal of the defect, the defect information is extracted and detected. The forecasting method described in this paper and the electricity load of the power grid in a certain area in May 2012 are used to forecast. The electricity load and its related data in the first 28 days of May are selected as training samples, and the data in the last 3 days are selected as test samples to predict the load of the power grid. Empirical research results show that employees with higher psychological capital have higher job performance and performance than ordinary employees. [22] The meta-analysis of self-efficacy done by Lucance confirmed that self-efficacy has a positive relationship with job performance [23].

3. CONCLUSIONS

This article only considers the situation that the Guokai Learning Network of the National Open University has learning behavior records to analyze and discuss how to provide students with personalized learning content. Psychological capital can effectively promote the formation of other capitals. Psychological capital, like human and social capital, can be invested and managed, and its investment is less than other capitals. An LSSVM predictive control algorithm based on PSO optimization is proposed. This method constructs the HVAC system predictive control framework, and only needs the system input and output data to establish the LSSVM predictive model for the HVAC system predictive control.

4. REFERENCES

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