Retraction

Retracted: Analysis of University Management Model of National Higher Education Institutions Based on Machine Learning Algorithm

Mobile Information Systems

This article has been retracted by Hindawi following an investigation undertaken by the publisher [1]. This investigation has uncovered evidence of one or more of the following indicators of systematic manipulation of the publication process:

(1) Discrepancies in scope

(2) Discrepancies in the description of the research reported

(3) Discrepancies between the availability of data and the research described

(4) Inappropriate citations

(5) Incoherent, meaningless and/or irrelevant content included in the article

(6) Peer-review manipulation

The presence of these indicators undermines our confidence in the integrity of the article's content and we cannot, therefore, vouch for its reliability. Please note that this notice is intended solely to alert readers that the content of this article is unreliable. We have not investigated whether authors were aware of or involved in the systematic manipulation of the publication process.

Wiley and Hindawi regrets that the usual quality checks did not identify these issues before publication and have since put additional measures in place to safeguard research integrity.

We wish to credit our own Research Integrity and Research Publishing teams and anonymous and named external researchers and research integrity experts for contributing to this investigation.

The corresponding author, as the representative of all authors, has been given the opportunity to register their agreement or disagreement to this retraction. We have kept a record of any response received.

References

[1] D. Zhang, "Analysis of University Management Model of National Higher Education Institutions Based on Machine Learning Algorithm," *Mobile Information Systems*, vol. 2022, Article ID 4553185, 7 pages, 2022.

Research Article

Analysis of University Management Model of National Higher Education Institutions Based on Machine Learning Algorithm

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The development of state-owned colleges and universities has a long history and profound foundation, which has more political tasks in the field of higher education in China; national development cannot be separated from the next generation of education. The purpose of this paper is to analyze the effectiveness and advantages of using machine learning algorithm in the efficient management model of national higher education institutions; by comparing the effect of university management mode and teaching facility environment under different environments; compare the teaching management quality and coupling analysis under different algorithms; the results are statistically significant; through the research, it is found that the algorithm of machine learning has a positive impact on the data processing and auxiliary management mode based on the degree of anthropomorphic simulation, it can effectively improve the level and quality of education management in Colleges and universities and enhance students' learning motivation and ideological value; conform to the development concept of social sustainable development; it has research value and positive significance for the future management of educational colleges and universities.

1. Introduction

Education has always been one of the most basic problems in national construction. Only the talent cultivation achievements of the next generation can strengthen China's comprehensive strength. The success of education is also closely related to education management; Since its establishment and launch, China's national education has had certain political characteristics, and its management also belongs to the way of Party and government management. The management of colleges and universities also reflects the comprehensive teaching level of colleges and universities to a certain extent. In today's environment of the development of the Internet, how to further improve the management method and effect is a major problem; Hongying now, the requirements of universities for data analysis have surged. In the period of the prosperity of the concept of machine learning, using machine learning algorithm can better assist the operation of university management and improve teaching quality [1]. Liu in Colleges and universities, the research on scientific research literature is a professional field, in which the processing and operation of big data can be statistically analyzed by machine learning, which can effectively improve the operation speed and achieve certain results [2]. The higher the scientific research achievements of the school, the better the management mode. Peijun the purpose of education in the new era is the process of educating people with wisdom. In the process of educational reform and management, using modern scientific and technological advantages to create a management mode that conforms to the characteristics of the times is the modernization goal [3]. Ni with the progress and development of social economy, science, and technology, China's education is also progressing. Machine learning, as a type of big data technology, has also played an important impact of the Internet has led to the application of many advanced technologies in the field of education. As an artificial intelligence computing method, the machine learning algorithm can also play a promoting role in university management [4]. Chen in the era of big data, higher education needs to be more refined and diversified. Data mining and statistics need the support of new technologies, which is

conducive to increasing management efficiency [5]. Kong the national digital economy continues to develop and change. In line with the times, national education management also needs to achieve a synchronous development trend. In the machine learning environment, greater achievements in education management can be achieved in the new platform [6]. Xia and Jiang machine learning course can better achieve student satisfaction and teaching performance from teaching design to practical simulation and data result analysis, which plays a positive role in education management [7]. Wang et al. in the construction of political and ideological integration of college teaching mode, new teaching contents and methods that meet the cultivation purpose of modern people are conducive to improving personal comprehensive ideological and political construction and facilitating college management and progress [8]. It can be seen from the literature that all aspects of the development of the new era need to take advantage of the progress of new technology. Only by integrating new educational concepts and new technical concepts can we better carry out educational reform and educational management. In order to improve the education level of the next generation and explore the way forward, a machine learning algorithm is an essential technical way; It also provides certain research value for the development of education in the new era. Through analysis and research, this paper concludes that the university management mode under the application of a machine learning algorithm is better than the traditional algorithm. They have better educational ideas and political work for the party and government, and they are more time-saving and labor-saving for the work operation of various management institutions.

2. Introduction to Machine Learning Algorithm

2.1. Machine Learning Algorithm. The machine learning algorithm is a multidisciplinary interdisciplinary subject in nature. It is the core of artificial intelligence. It mainly studies how to simulate human learning behavior and methods to obtain new knowledge and technology, mainly using inductive and comprehensive computing methods; machine learning algorithm refers the effective premise that the conformance class includes training data and test data, and the data have the same statistical regularity. The stronger the statistical regularity, the stronger the effectiveness of the algorithm. Machine learning algorithms are divided into three supervised learning algorithms, unsupervised learning algorithm, and reinforcement learning algorithm. In the process of supervised learning, a supervised learning algorithm can build a pattern from training data or infer new instances according to the pattern, and the algorithm should input or output according to instructions. The second is the unsupervised learning method, which means that there is no specific output target, and the algorithm converts the data into different groups. In addition, the reinforcement learning algorithm, which has strong applicability, is basically trained according to the decision-making. The algorithm also trains itself according to the success of the output of the result and summarizes the good

prediction after the algorithm is optimized by multiple training methods.

2.2. Application of Machine Learning Algorithm in Higher Education. With the continuous development of science and technology, higher education has gradually become intelligent with the help of machine learning. In many aspects of education, the recognition and reading mode of the machine learning algorithm can predict and analyze its input data-driven and decision-making algorithm. The more information you input, the more intelligent the algorithm will become. Zhong uses the decision tree algorithm commonly used in machine learning to learn knowledge from the existing teaching management platform data, extracts useful predictions from the information obtained from the data, and uses this information to affect the teaching quality, so as to optimize the daily teaching workload of teachers and improve the teaching management level [9]. Wan realized education prediction in the algorithm era. It should show the application value of algorithm prediction from both macro and microaspects, from traditional methods to machine learning, and from a single path to diversification. With the continuous application of machine learning algorithms, education prediction research will help the whole education achieve breakthroughs [10]. Zhang et al. machine learning algorithms are applied in data mining, pattern recognition, and many other fields. In the context of machine learning algorithms, the application value of new machine learning algorithms such as support vector machines and convolutional neural networks has attracted extensive attention [11]. Xu et al. machine learning is one of the important directions in artificial intelligence and data analysis. Machine learning divides machine learning algorithms into unsupervised learning, reinforcement learning, and supervised learning according to training samples and training experience. According to the representative algorithm of machine learning and its application, it shows the development direction of the machine learning algorithm [12]. The role of machine learning in education is gradually emerging. The application of machine learning algorithms, education management, and teaching efficiency have been improved. Educational institutions develop the teaching quality of higher education by tapping the potential of machine learning algorithms. They also use computing methods in educational management to simplify the management mode, improve the efficiency and quality of management, and promote the comprehensive development of colleges and universities.

3. Management Mode of National Higher Education Institutions

With the establishment of the socialist market economic system, the autonomy of colleges and universities has been further expanded. The management of higher education selects centralization and decentralization, unity and diversity, a comprehensive planning system, and operates in strict accordance with the mode of China's socialist

development on the management system of higher education. In terms of the inadequacy of the management system of traditional higher education, the operation of the new higher education management system is only the initial stage, and the establishment of a stable system still needs the support of the government, society, colleges, and universities. In the management of colleges and universities, the operation mode of management is too rigid. The unified education policy of the current education system leads to the immobilization and low efficiency of the current education system and the influence of bureaucratic negative factors. Secondly, the theme of running a school is too single, and the rules of running a school are not flexible. Therefore, the mode of talent training is relatively single, and the unreasonable education structure and the waste of educational resources have seriously affected the development of efficient education. In terms of college enrollment, employment management is not flexible enough to be updated in time according to the professional needs of market talents. In the development of national higher education institutions, the right of administration has always occupied an important position in the management mode. In this case, the management of colleges and universities is affected by administrative management, which is not conducive to the improvement of teaching quality, and teaching management is also deeply affected, In the actual teaching, the development of teachers is limited by the management system. Therefore, teachers' teaching innovation consciousness is gradually lost, and students' subjective consciousness and creativity cannot be often displayed. Therefore, the management work has been affected. Through the education method, we know that the development of higher education should be democratic, the teaching of students should be put in the first place of management, people-oriented, its value should be excavated, and the management level should be improved as much as possible to achieve the desired effect. During the management period, teachers should give full play to their own advantages, consider more for students, not blindly instill knowledge, more is communication, and improve their teaching ability, Ensure that students can freely show their charm while improving their abilities, so that teaching can be carried out effectively. Teachers should continue to innovate while ensuring efficient education management, better teaching students, so as to improve the level of efficient management.

4. Statistical Methods

4.1. Machine Learning Algorithm. Use machine learning algorithm to deeply mine the institutional management of national universities, calculate its effect in university management, and observe its effectiveness and stability in efficient management.

4.2. Bivariate t-Test. There are t value and p value in the bivariate t-test. T value is the value value of the output result. When $t > 10.000$, it is considered that there is statistical consistency between the two groups of data, and the greater the T value, the greater the consistency. When $T < 10.000$, it is considered that there is a statistical difference between the data; The p value is the log value of the output result. When $p < 0.05$, the result data is considered to be credible. When $p < 0.01$, the result data is considered to have significant statistical significance. The smaller the p value, the higher the degree of confidence.

5. Comprehensive Analysis of University Management of National Higher Education Structure

5.1. Analysis of University Management Mode under Different Development Environments. The development of national colleges and universities is political and social. In the management mode of higher education, it is more prominent to cultivate talents useful to society and technical talents in line with the needs of social development for the motherland; have different educational ideas and management methods under different social development backgrounds; the comparison of educational equipment and facilities on the campus of national higher education in two environments is analyzed, and Table 1 is obtained.

As shown in Table 1, from the comparison between the traditional education environment and the machine learning environment, it can be seen that the campus under the machine learning environment has facilities and equipment and the overall environment; the development of the campus network and the scale of teachers' team are better than those in the traditional environment; a good learning environment and advanced educational resources, equipment and facilities can greatly improve students' learning initiative and contribute to educational management; visualize the data in the table to get Figure 1.

As shown in Figure 1, it can be seen from the figure that the development effect under the machine learning environment is more ideal, and the education environment and teacher team under the traditional environment will be more conducive to the education of colleges and universities; environment changes people, in the development of higher education; a good learning environment and excellent teacher team can more comprehensively and systematically educate and manage students; it is conducive to cultivating students' personal quality and collectivism spirit; it can help create a comfortable and relaxed learning atmosphere.

5.2. Comprehensive Effect of Management Mode of Higher Education Institutions in Different Environments. In the educational management of modern colleges and universities, the requirements for educational institutions need to follow the principle of all-round development, in line with the national political environment and sustainable road; a good educational environment and modern science and technology are conducive to increasing students' learning motivation and ideological understanding and are more convenient for management. Especially with the rapid development of the Internet, the comprehensive level and personal quality development of teachers and students can

TABLE 1: Comparative analysis of educational facilities in national universities (%).

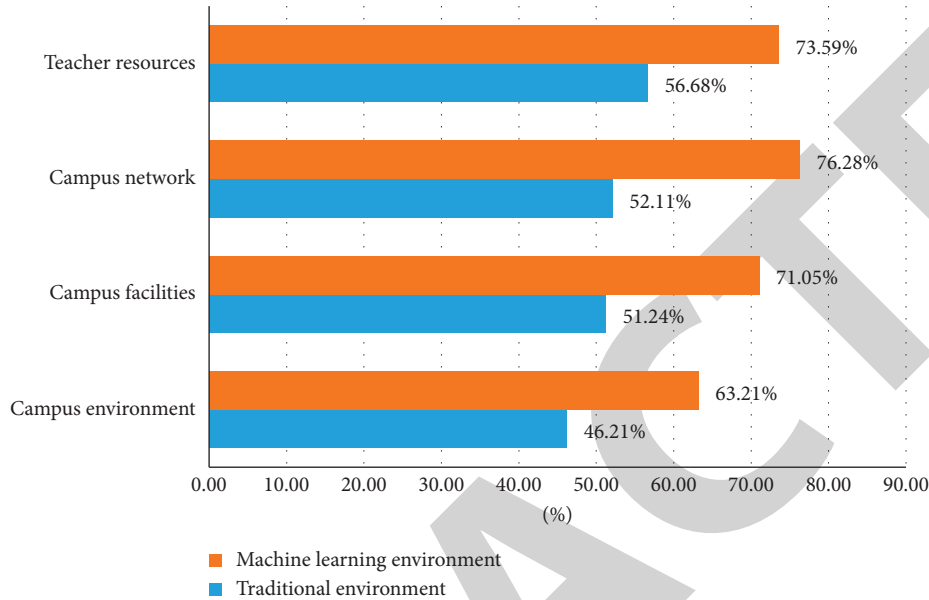| Group	Campus environment (%)	Campus facilities (%)	Campus network (%)	Teacher resources (%)
Traditional environment	46.21	51.24	52.11	56.68
Machine learning environment	63.21	71.05	76.28	73.59

FIGURE 1: Comparative analysis of educational facilities in national universities (%).

be improved by using machine learning algorithm for education and auxiliary service management in university management; by analyzing and comparing the management effects of colleges and universities in different environments, the following Table 2 is obtained.

As shown in Table 2, it can be seen from the data in the table that the educational development of students and teachers under the traditional management mode is far less than that under the machine learning environment; In the development environment of the digital economy and the social environment of sustainable development, national colleges and universities, as the management organization of the integration of Party and government, need to abide by the political policy, and the use of machine learning algorithm can increase the management effect of college management. The following figure is obtained by visual processing of the data in the table.

As shown in Figure 2, college management, as a core element, is primarily responsible for students' education. A good management method is conducive to students' learning progress and positive thinking. Machine learning not only adds a lot of intelligent convenience and analysis and statistics methods to institutional management but also helps students and teachers to open up new scientific and technological horizons; increase the means of communication between teachers and students; provide more educational directions for educational development.

5.3. Analysis of Management Model of National Higher Education Institutions under Different Algorithms. According to the differences between scientific research division and discipline planning, national colleges and universities in China are set up and managed according to entity institutions and nonentity institutions, and entity institutions will have certain management personnel, scientific research funds, venues, and other support; for the management of colleges and universities, the purpose is to assist educational achievements, cultivate talents needed by the country and new scientific research achievements; this paper evaluates the university management models under different algorithms and obtains the following table.

As shown in Table 3, through the party and government management in the management of colleges and universities; Scientific research achievements; service guarantee and organization establishment are analyzed, respectively; it is found that the performance is higher under the machine learning algorithm. The following figure is obtained from the visual processing of the data in the table.

As shown in Figure 3, the management mode of colleges and universities is assisted by advanced technical means, which greatly avoids the impact of staff waste and insufficient resources in terms of teacher resources; in terms of some data statistics and analysis of simulated data, scientific research can better assist administrators in management, analysis, and control. It has a great positive impact on the development of colleges and universities as a whole; among

TABLE 2: Effect analysis of university management mode under different environments (%).

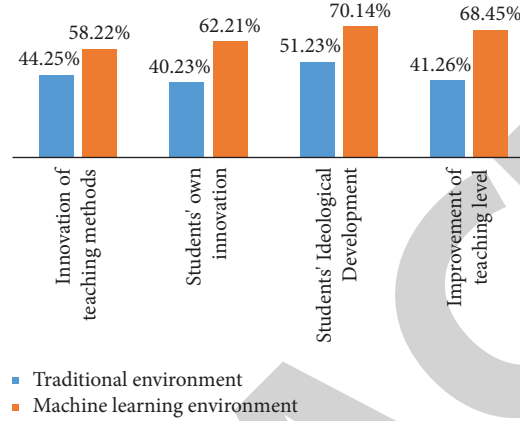| Group	Innovation of teaching methods (%)	Students' own innovation (%)	Students' ideological development (%)	Improvement of teaching level (%)
Traditional environment	44.25	40.23	51.23	41.26
Machine learning environment	58.22	62.21	70.14	68.45

FIGURE 2: Effect analysis of university management mode under different environments (%).

TABLE 3: Evaluation of management model of national higher education institutions under different algorithms (%).

Group	Party and government management	Teaching and scientific research	Service guarantee	Establishment of institutions
Traditional algorithm	33.51%	41.03%	50.68%	48.26%
Machine learning algorithm	56.20%	56.26%	60.26%	68.66%
t	7.562	8.035	8.115	8.865
P	0.019	0.025	0.036	0.027

them, the analysis results, $t < 10$; $p < 0.05$, the data was statistically significant.

5.4. Management Coupling Degree of Higher Education Institutions under Different Algorithms. In the final analysis, the management of colleges and universities is still a people-oriented management mode. In national universities and scientific research colleges, the structure and establishment of management organizations are hierarchical and structural. The division and management of each level need data recording and management. The computing mode of machine learning is to research an effective auxiliary management mode through anthropomorphic simulation characteristics and data analysis ability; it has good performance results in terms of functionality and stability; through the analysis of the coupling degree of university management under different algorithms, the following table is obtained.

As shown in Table 4, it can be seen from the table that the degree of the coupling under the machine learning algorithm is higher than that under the traditional algorithm, whether before or after coupling; $t < 10$; $p < 0.05$; the data are

statistically significant; the following figure is obtained by visual processing of the data in the table:

As shown in Figure 4, the development and management of modern colleges and universities with the progress of science and technology, new data processing and analysis methods have a more anthropomorphic mode. In the society of Internet development, it has become a phenomenon to use advanced development technology in both education and management, as well as in more fields; this has also promoted the emergence of new models. In terms of university management, the application of this algorithm has also led to progress in the field of education; It has a certain positive impact on the cultivation of talents, the establishment of students' values, and the development of communication between teachers and students.

6. Summary

The reform, development, and management mode of education need to keep pace with the times, and the management needs of state-run schools should be in line with the national political development; in the Internet environment, the application of machine learning algorithm is in line with
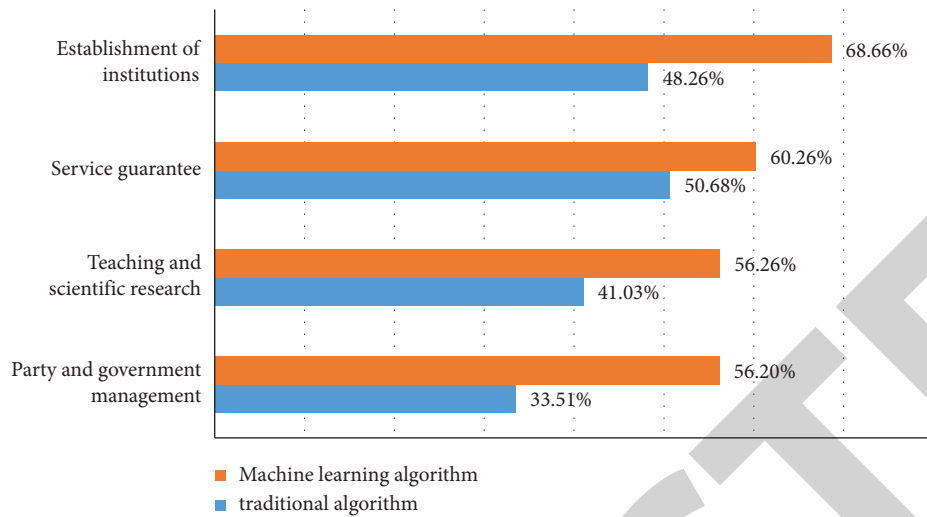
FIGURE 3: Evaluation of management model of national higher education institutions under different algorithms (%).

TABLE 4: University management coupling degree under two algorithms.

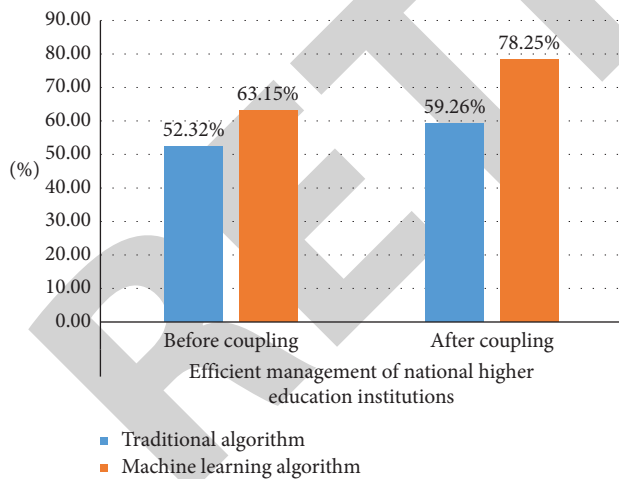| Group	Efficient management of national higher education institutions	
	Before coupling	After coupling
Traditional algorithm	52.32%	59.26%
Machine learning algorithm	63.15%	78.25%
t	8.652	8.865
P	0.026	0.015

FIGURE 4: University management coupling degree under two algorithms.

the progress direction of modern education management; how to adapt to new technologies in the new environment and use advanced science and technology to improve life and social development. In terms of education management, machine learning algorithms have changed the efficiency of management and effectively improved the utilization of human resources, the change and development in the field of education is in line with the strategic objectives of modernization and the political direction of sustainable development; give guidance to improve students' knowledge reserve and life direction; be able to touch a broader field of knowledge, go to the world, go international, and establish a higher ideal of life; it also provides a greater direction and development path for China's educational management institutions and provides beneficial data support and research value for the development and progress of the future management mode of colleges and universities. By changing the algorithm and technical means of university management, we can improve the informatization and humanized management mode of university management and enhance students' awareness of autonomy and collective awareness; strictly managing the democratic construction of teachers and students plays a positive role in improving management efficiency.

Data Availability

The data underlying the results presented in the study are available within the manuscript.

Conflicts of Interest

The author declares that there are no conflicts of interest.

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