

Research Article

Design and Implementation of Continuing Education Online Training System Based on Artificial Intelligence Algorithm

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With the continuous development and maturity of artificial intelligence algorithms, there are more cross-concepts in continuing education, so continuing education has begun to develop on the Internet. The continuing education online training system realizes nonreal-time teaching methods, breaks the limitations of time and space, solves the conflict between continuing education engineering and learning, and promotes the sharing of high-quality teaching resources. However, the current continuing education online training system has many defects and imperfections. For example, many continuing education colleges only consider building resources and teaching forms to design online learning systems, and these high-quality resources and teaching forms are difficult to be effectively utilized. Based on this background, this paper establishes a continuing education online training system combined with artificial intelligence algorithms, which is divided into course management, question bank management, learning management, homework management, question-and-answer management, online learning process monitoring management, basic data management, system management, etc. Then, by matching the relevance of the above courses, individual courses are recommended for students to complete the continuing online training education. The system has been highly appraised by the majority of students. The user said that the system can effectively solve practical problems, which is known for the effectiveness of the system design in this paper, thus providing reasonable help for improving the teaching quality. In this paper, we deeply study artificial intelligence algorithms and apply them to the field of continuing education to design a new type of online education system.

1. Introduction

With the continuous development of society, the demand in the field of education is growing, and the application of artificial intelligence technology to the field of education has become the mainstream trend. The combination of artificial intelligence technology and information technology can effectively improve the efficiency of education, and it is also the main way to complete online continuing education. How to obtain information? [1]. The development and application of such technologies will gradually change the characteristics and forms of continuing education teaching itself, and guide the transformation of adult students' concept of knowledge acquisition, thereby changing the learning style of adult students [2]. Continuing teaching can effectively meet the needs of educational development and reform. It is a teaching method with a new teaching concept, and its main

target is adult students [3]. Judging from the current development outline of China's long-term education reform, the country has vigorously developed adult online learning under the mass education model and established a flexible and open education system [4]. Only by conducting relevant research on the online continuing education system can some practical problems in the field of continuing education be solved. This point is also in line with the educational reform concept formulated by the state and can improve the rate of students in class [5]. In the information age, with the rapid development of Internet technology, the research on continuing education in the online training system will become the center and primary task of continuing education reform research [6]. Special research on this technology can effectively improve and comprehensively enhance the theoretical and practical application levels of continuing education. In recent years, the enrollment scale of continuing

education in continuing education colleges in major universities has doubled, and the distribution of students has become more dispersed, resulting in continuous growth of teaching sites, increased teaching load, and serious shortage of teaching resources, especially teacher resources [7]. In order to solve these practical problems, further ensure the quality of education and teaching in continuing education, improve the learning conditions of students participating in continuing education, cultivate students' self-learning awareness and interest in learning, realize a nonreal-time online learning system, provide learners with knowledge, and it is very important to promote the exchange of high-quality resources among universities and realize resource sharing. The development of an online continuing learning system can promote the continuous, stable, and efficient operation of continuing education, and can meet the actual needs of learners. Based on this background, this paper develops an online training system for continuing education by combining artificial intelligence technology and is committed to improving the learning experience of learners, stimulating their learning initiative and enthusiasm, and further reforming continuing education based on the teaching quality evaluation system. Through testing, it is found that the design of the system can effectively help the reform of continuing education and promote its further development.

2. Related Work

The literature proposes a personalized course recommendation method for online learning platforms based on multi-features. First analyze online course learning records by using student extraction data, and then add course information using an XMMC model [8]. Through the students' historical learning records, cluster analysis is performed on students with similar learning styles to analyze their learning interests and preferences [9, 10]. The literature proposes a unified extraction model (XMMC) for knowledge entities and relations in the educational domain based on deep learning [11]. By using this model, the knowledge points of the course can be captured at the same time through entities and relationships, then the knowledge structure of the course can be dynamically displayed, then the correlation of knowledge points between different other courses can be explored, and the knowledge chain can be traced back to the source through the implicit relationship, so as to improve the recommendation effect of personalized courses [12]. The literature establishes a prediction model based on an improved decision tree algorithm (FGDT) and a prediction model based on an improved support vector machine (FGSM) algorithm [13]. The literature is based on the theory of S-O-R model and the correlation analysis of user perceived value on contextual factors [14]. The literature examines the potential impact of contextual factors on users' continued use intentions based on existing research results [15]. The article first proposes a set of curriculum index system, that is, a new index system for evaluating online courses based on

course content [16]. First, three algorithms are used to extract the features of the index: the improved FastText algorithm is used to classify the course introduction text, and three features related to the difficulty of the course are extracted; that is, the SVM algorithm is used to analyze the course-related sentiment and extract the relevant field features of the course evaluation; Jaccard similarity is applied to fine-grained clustering of similar courses to calculate the knowledge point coverage of each course [17, 18].

3. Design of Online Training System for Continuing Education

3.1. System Architecture Design. Analyze the business requirements of the continuing education online training system, further decompose the data flow of the continuing education online training system layer by layer, and obtain the functional structure diagram of the continuing education online training system. The block diagram of the online continuous training system is shown in Figure 1.

The continuing education online training system is divided into 8 modules. Among them, the course management module is mainly responsible for the construction and management of various educational resources of the course, as well as the management of teacher declaration courses, such as the management of teacher class declaration information and teacher management, construction course information, teaching progress management, and video and PPT document information; question bank management mainly manages subject information; learning management module mainly manages a series of learning records of students who have completed online courses, such as the time when students start learning, the time when learning ends, and student identity verification information records; homework management mainly completes students' homework project management, which can record the audio of the teacher explaining the homework. And it can be used to fully understand the students' learning results; the Q&A management module is a function set up for students who encounter difficult problems, which can help students put forward solutions to difficult problems and communicate with them. Through the teaching process of education administrators, we can understand the dynamic summary of students in real time, understand the status of students' learning courses in the online learning system, and manage teaching teachers in real time; the main data management is to manage the main information of teachers, the main information of students themselves, the planned courses for this semester and implementation of semester information, student master information and course information of selected student courses, as well as additions, deletions, revisions, and checking of basic information of students and teachers; the main function of system management is to monitor continuing education managers, online training system log information, and dissertation information and ongoing access information for backup management and maintenance.

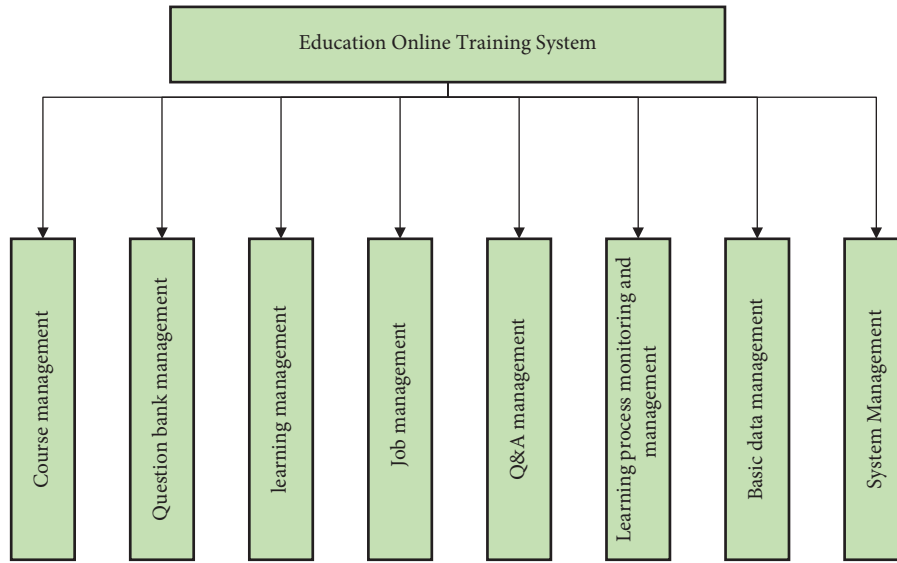


FIGURE 1: Overall functional structure diagram of continuing education online learning system.

3.2. *System Function Analysis.* The course management business process is described. Curriculum is the most important element in the online continuing education and training system and runs through the online continuing education and training system. The first is the teacher’s course declaration. The teaching staff prepares the course plan according to the teaching plan and announces the course plan to the platform. The teacher applies for the course according to the course plan, completes the teacher’s personal basic information and class filling requirements, and sends the summary to the system. At the beginning of the lesson plan, teachers need to summarize the course and apply to become a teacher, and then review the qualifications of teachers, set teachers and class time, etc. Secondly, for curriculum development, teaching staff prepare syllabus according to the curriculum plan and release the syllabus to teachers and students. Teachers arrange teaching materials according to the curriculum. For example, teachers write syllabuses based on selected textbooks and report to the teacher review system. According to the arrangement of the syllabus and the content of the books, prepare teaching materials such as PPT, and submit them to the provost for review. After the review is passed, the business is archived. Teachers teach according to a timetable.

Describe business processes related to system administration. Question bank is a standard for testing students’ learning status, and it is an indispensable data in students’ learning process. The first is the preparation stage. The registrar requires teachers to complete the question bank construction according to the selected courses and books, and the registrar forms the question bank template. The second is the query phase. Teachers select topics according to the content of the textbook and the syllabus, and according to the question bank model. The test information includes the title, option 1, option 2, option 3, option 4, standard answers, and information analysis, followed by the review stage. After the teacher completes the information in the

question bank, it is submitted to the teaching staff for review. After the review, the question bank is archived, and the question bank is grouped by the question bank group, which is made into this test or homework, and distributed to the students to complete.

Learn to manage business process descriptions. Students are the helmsman of learning, and teachers are the vitality of learning. Only by working together can the course continue. The first is to organize courses. Teachers and staff organize teachers and students to attend classes according to the timetable, and teachers and students attend classes on time according to the information in the timetable; the second step is the learning stage. Teachers explain the course content to students according to the syllabus, PPT documents, textbooks, and other teaching materials. Students listen carefully and take notes in class. And record student attendance through roll call and recording in class. In the classroom, teachers organize students to discuss and complete homework to test students’ academic performance, etc., and record these classroom performances in the scorebook as the students’ regular performance scores to provide the basis for the final results of the comprehensive assessment; third for learning outcomes, students create learning records such as study notes, homework, and attendance through learning. College administrators can view these learning records and manage the learning process.

Job management business process description: First, after the students listen to the course explanation, the teacher assigns the homework, and the students record the homework and complete it; secondly, the students send the completed homework to the teacher for review, and the teacher reviews the students’ homework, marks the wrong places, and grades the students’ homework, so as to complete the entire homework review process; at the end, students review the homework and the teacher explains the homework.

Q&A management business process description: Answering questions is an important part of student learning.

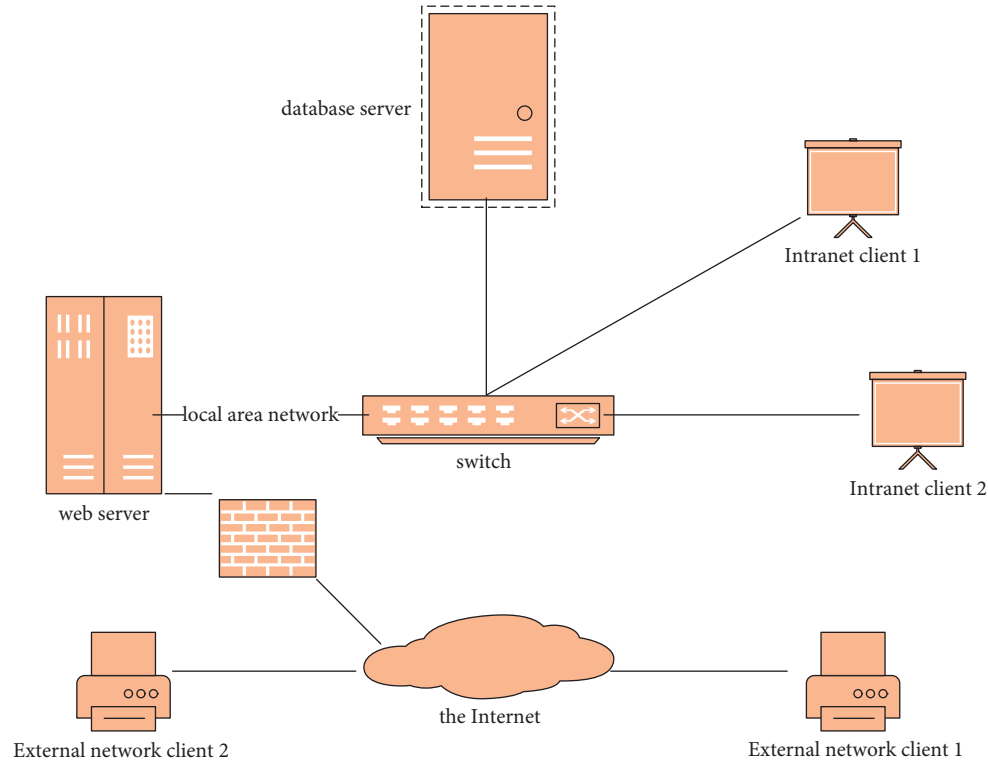


FIGURE 2: Network structure diagram.

Learning itself is to solve puzzles, so students will encounter doubts in the learning process and need the help of teachers to solve them. The first step is for students to participate in the course study, complete the homework, and look for problems; the second step is for students to choose a method to solve the problem, such as searching for relevant answers on the Internet to solve the problem, or to solve the problem by themselves; the third step is that teachers listen to students' questions and answer their puzzles with their own knowledge; in the fourth step, students record the teacher's answer.

Learning to monitor business processes describes management processes. The main purpose of monitoring the learning process is to ensure that students complete the tasks specified in the course on time and in quantity. First, the registrar analyzes the student's learning by recording the student's learning, and warns or encourages the student to study; second, the clerk monitors the student's learning by collecting and checking the student's work; finally, the clerk takes classes according to the course schedule and monitors students' learning status by showing them in class.

3.3. System Network Architecture Design. The network structure of the continuing education online training system designed and implemented in this paper is consistent with other popular websites in the market. The network structure diagram is shown in Figure 2.

In the continuing education online training system designed in this paper, there must be two PCs in the computer room as system servers. Database servers can be networked in a clustered system. Using the network, one database server and two application servers can be connected to the storage

array using SON switches. In this way, a server system integrating storage resources can be formed.

3.4. System Test Environment Construction. Software testing refers to testing whether software works normally under certain conditions, and is an important way to ensure software quality. This article will examine multiple aspects of online learning recommendation platforms. It mainly includes platform function test, platform security and compatibility test, platform performance test, etc.

Once the platform is developed and implemented, it must be deployed and tested. The general details of the platform test environment are shown in Table 1.

4. Continuing Education Functional Modules Based on Artificial Intelligence Algorithms

4.1. Theoretical Basis of Support Vector Machine Algorithm. Before calculating the optimal classification surface, the range must be calculated first. In the sample space, the segmentation hyperplane can be described by the following linear equation:

$$\omega x + b = 0. \quad (1)$$

The general form is

$$f(x) = \omega \cdot x + b. \quad (2)$$

The training samples (x_i, y_i) must satisfy the following conditions: where $\alpha_i \geq 0$ is the Lagrange multiplier. According to Lagrangian duality, the optimization problem

TABLE 1: System environment.

Test environment	Hardware	Software
Service terminal	Database version: MySQL 10.0 Running memory: 32 G Storage memory: 1T	Operating system: CentOS 7.9 JDK version: JDK 1.8 Server: Tomcat
Client	Handling Intel i7-12700 Storage memory: 256 G Running memory: 32 G	Operating system: Windows 11 — Browser: Google Chrome, Microsoft Edge

can be transformed into an equivalent dual problem to solve, and the steps are as follows:

To find the minimum first, you need to differentiate w , b , α :

$$\begin{cases} \frac{\partial L}{\partial w} = 0 \Rightarrow w = \sum_{i=1}^n \alpha_i y_i x_i, \\ \frac{\partial L}{\partial \alpha} = 0 \Rightarrow \alpha_i [y_i (w \cdot x_i + b) - 1] = 0, \\ \frac{\partial L}{\partial b} = 0 \Rightarrow \sum_{i=1}^n \alpha_i y_i = 0. \end{cases} \quad (3)$$

The formula obtained after optimizing the above formula is as follows:

$$\max = \sum_{i=1}^n \alpha_i - \frac{1}{2} \sum_{i=1, j=1}^n \alpha_i \alpha_j y_i y_j (x_i \cdot x_j). \quad (4)$$

Its constraints are

$$\begin{cases} \sum_{i=1}^n \alpha_i y_i = 0, \\ \alpha_i \geq 0. \end{cases} \quad (5)$$

In the solution process, if $\alpha_i \neq 0$, it corresponds to the support vector. The final optimal classification function is

$$f(x) = \text{sgn} \left(\sum_{i=1}^n \alpha_i y_i (x \cdot x_j) + b \right). \quad (6)$$

In this case, there is also a special case; that is, the small number of samples will affect the performance of the classifier when the original linearly separable problem becomes nonlinearly separable.

4.2. Course Recommendation Module. Traditional learning and online learning differ in many ways. For example, students in a traditional learning environment may have preferences for classroom sound conduction, lighting, and temperature, factors that are not suitable for an online learning environment, where the main element of an online learning environment is an interactive web page. Students who study online can publish and exchange comments online anytime, anywhere, and study without time constraints, which is not available in traditional learning.

In the process of calculating similarity, the contributions of user behavior variables (study hours, discussions, visits, activity points completed, and lessons learned) are not the same, so we have to give these five variables the nature of the referral process.

In this paper, the Euclidean distance is calculated in ascending order. The Euclidean distance algorithm is calculated as shown in formula :

$$\text{sim}_{ktglo}(S_j, S_j) = \frac{1}{1 + d(S_i, S_j)} = \frac{1}{1 + \sqrt{\sum_{k=1}^5 (E_{jk} - E_{jk})^2}} \quad (7)$$

After calculating the user's learning style similarity, we can get the N most similar UN learning peers of user u through TOP-N sorting. Finally, a preference weight is created according to the user's behavioral characteristics, and the weight calculation is shown in formula :

$$\text{weight}_{t_{uee}}(u, c) = \frac{1}{N} \text{sim}_{syle}(u, u') \sum_{N' \in U_N} I_{C'.(c)}. \quad (8)$$

To understand courses closely related to students' interests in historical access logs, we use the XMMC information extraction model to extract entity and relation features from course text description information. If the knowledge entity information is obtained from the text description information of the two courses, the similarity of the two courses will be greater.

After the vector representation of each course, we can use Euclidean distance to calculate the similarity between any two courses. For example, for course c and course c' , the Euclidean distance algorithm is calculated as

$$\text{sim}_{cotso}(c, c') = \frac{1}{1 + d(c, c')} = \frac{1}{1 + \sqrt{\sum_{k=1}^d (E_{kc} - E_{kc})^2}} \quad (9)$$

After calculating the course similarity, for any course c , we can get the K courses that are most similar to the course through the TOP-N ranking. Finally, the preference weight is generated according to the characteristics of the course content, and the weight calculation is shown in formula:

$$\text{weight}_{\text{course}}(u, c) = \frac{1}{K} \text{sim}_{\text{course}}(c, c') \sum_{c' \in C'_{C, K}} I_{U_e(w)}. \quad (10)$$

The actual requirements of the course are practical education and online education. For example, "Data Structures I" and "Data Structures II" courses or "Advanced Mathematics" and "Advanced Mathematics II" courses have a clear required course relationship (the former is more

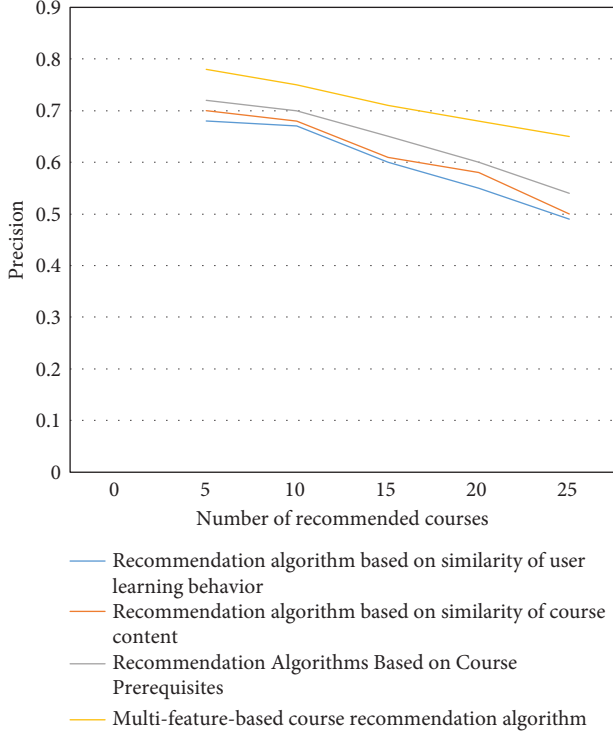


FIGURE 3: Recommended courses on the accuracy of different algorithms.

basic). To measure the relationship between different courses, for the set U_c of users who study course c , after calculating the percentage of users who study course c' , we define the transition probability p for each ordered course pair (c, c') (c, c'). For example, tp (“Data Structure I,” “Data Structure II”) is higher than tp (“Data Structure II,” “Data Structure I”), indicating that the transition trend from the former to the latter may be higher. This transition probability is shown in

$$p(c, c') = \frac{|\{u \mid u \in U_c \cap U_{c'}, t_{u,c} \leq t_{u,c'}\}|}{|U_c|} \quad (11)$$

After calculating the course transfer probability, we use the above transfer probability to finally generate the preference weight according to the required courses. The calculation formula is

$$\text{weight}_{tp}(u, c) = \sum_{c' \in C_n} tp(c', c). \quad (12)$$

After calculating preference weights according to different features, the total preference weights of users in course c can be written as

$$\text{weight}(u, c) = \alpha \times \text{weight}_1(u, c) + \beta \times \text{weight}_2(u, c) + \gamma \times \text{weight}_3(u, c), \quad (13)$$

where α, β, γ are parameters that control the proportion of weights from different sources.

The effect of the number of recommended courses on the accuracy of different algorithms is shown in Figure 3.

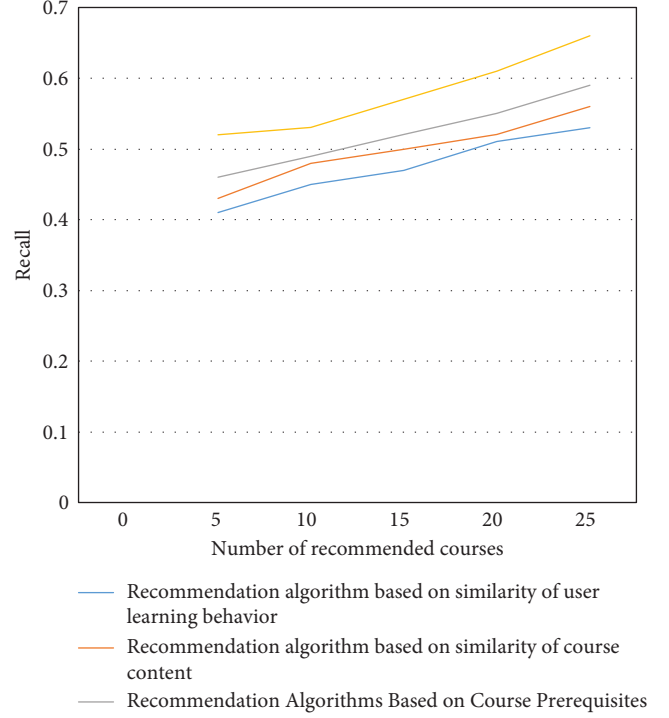


FIGURE 4: The effect of the number of recommended courses on the recall rate of different algorithms.

The effect of the number of recommended courses on the recall rate of different algorithms is shown in Figure 4.

In terms of the effectiveness of algorithm implementation, due to the personalized course recommendation algorithm based on multiple characteristics of our online learning platform, compared with the traditional user-based collaborative filtering, the grouping of students is first realized when calculating the similarity of students. For the recommendation algorithm, the algorithm has a shorter response time when calculating the same user set among target users, which improves the efficiency to a certain extent.

4.3. Course Quality Evaluation. Course quality is a key factor in measuring course excellence. In this paper, CQ is used to represent the course quality (Course Quality), and the index to measure the course quality is

$$\text{CQ} = \{ \text{TeamQuality}, \text{VideoQuality}, \text{PopularQuality}, \text{TeacherInput} \}. \quad (14)$$

Among them, Team Quality refers to the quality of the teaching team, Video Quality refers to the quality of the course video, Popular Quality refers to the popularity of the course, and Teacher Input refers to the teaching interaction. The literature shows the main factors that affect the success of MOOCs, and finds the value of teacher input (teacher-student interaction, teacher feedback, etc.), student interaction (question-and-answer behavior, etc.), and course

content (homework and exercise content) in online courses. The learning process has a positive impact.

4.3.1. Quality of Teaching Team.

$$\begin{aligned} 0 &\leq f_t (\text{"Teachers and Others"}) \\ &< f_t (\text{"Associate Professor"}) \\ &< f_t (\text{"professor"}) \leq 1. \end{aligned} \quad (15)$$

Considering that the number of teachers in different courses is different, it is necessary to add up the scores of all teachers' titles to obtain the average value. The calculation formula is

$$\text{teachers score} = \frac{\sum_{i=1}^n \text{teacherscore}_i}{n}, \quad (16)$$

where n is the number of teachers.

4.3.2. Video Lesson Quality. After analysis, it was found that many students watched the video for less than 60 seconds in total. They might just browse the video or open it accidentally. After removing these invalid behavior records, calculate the average video watch time. Let w_j be the average viewing time of the j th video, and the calculation process is as follows:

$$w_j = \text{Average}\{d_{ij} \mid d_{ij} \geq 60, i = 1, 2, \dots, m\}, j = 1, 2, 3, \dots, n. \quad (17)$$

Among them, m is the number of students watching the video, n is the number of course videos, and d_{ij} is the viewing time of the j th video of the i th student. Let v_j represent the length of the j th video, then the R value of the j th video is defined as

$$R_j = \frac{w_j}{v_j}, \quad j = 1, 2, \dots, n. \quad (18)$$

Finally, take the mode of R_j to represent the R value of the course; then, the value of R is

$$R = \text{Mode}\{R_j, j = 1, 2, \dots, n\}. \quad (19)$$

Teaching interaction refers to the amount of interaction between teachers and students in a course, and it is also one of the factors that determine the quality of a course. In this study, teaching interaction was defined as teacher activity in the discussion area, and teacher activity was the ratio of the sum of the number of posts and responses by teachers in the discussion area to the total number of posts in the discussion area representing the course. The calculation process is shown in formula (20). The data required to calculate the above features come from the course teaching behavior data.

$$\text{active ratio} = \frac{\text{post} + \text{reply}}{\text{total}}. \quad (20)$$

This experiment uses k -fold cross-validation to determine optimal hyperparameters to check model performance and avoid model overfitting. The F1 value comparison of the two is shown in Figure 5.

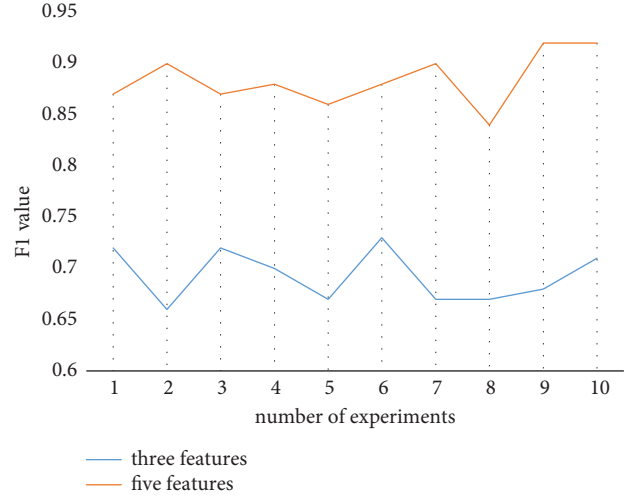


FIGURE 5: Comparison of F1 values of a 10-fold crossover experiment.

TABLE 2: The main purpose of users using the continuing education online training system.

Main purpose	Proportion (%)
Other	5.74
Hobby	33.28
Improve professional skills	58.53
Assisting on-campus study	47.06
Vocational qualification exam	46.48

TABLE 3: The duration of users using the continuing education online training system.

Duration	Proportion (%)
Less than 3 months	24
3-6 months	26.53
6 months-1 year	22.90
1-3 years	16.89
Over 3 years	9.68

It can be seen from Figure 5 that the average F1 value is increased by 19%, which proves that the online training system in this paper is effective.

5. Realization Effect of Continuing Education Online Training System

5.1. Market Development of Continuing Education. As can be seen from Table 2, among the main purposes of continuing education for online training system users, the highest proportion is to improve professional skills, accounting for 58.53%, followed by assisting campus course study and conducting vocational qualification examinations, entertainment and others, accounting for 47.06%, 46.48%, 33.28%, and 5.74%, respectively. Among them, the development of professional skills is particularly prominent, indicating that users have a strong willingness to use online education platforms, which is consistent with the distribution data of classroom statistical variables.

TABLE 4: Analysis of user satisfaction with continuing education online training system.

Satisfaction	Proportion (%)
Very satisfied	50
Satisfied	24
General	11
Dissatisfied	11
Very dissatisfied	4

The time intervals for using the CET online training system (see Table 3) are 3–6 months, less than 3 months, and 6 months–1 year, respectively, and the proportions are relatively close, 26.53%, 24%, and 22.90%, respectively. The proportion of more than one year is the lowest at 9.68%, indicating that the purpose of most users is to achieve a specific short-term learning effect, which is also consistent with the distribution variables of statistical data.

5.2. Satisfaction Analysis of Continuing Education Online Training System. It can be seen from Table 4 the online continuing education training system designed in this paper has been recognized by most users, 50% of users are very satisfied, and 24% of users are satisfied.

6. Application Directions of Continuing Education Online Training System

6.1. Standardization of System Design. The first step in the reform of continuing education is the standardization and institutionalization of the information management of the continuing education system. Implementing the information management construction under institutional standards and realizing that the teaching management process conforms to institutional standards have an important impact on the quality and stability of the entire educational reform process.

Since colleges and universities can independently construct online course resources in the process of actual teaching reform and management, this freedom will hinder the construction of “artificial intelligence + education” network teaching platform. Increase the complexity of college database construction and increase the workload. Curriculum resources can negatively impact the effectiveness of information management applications and cause unnecessary problems with information maintenance. Therefore, in the management of continuing education, system standards need to be built to promote the further development of artificial intelligence technology in the field of continuing education. Judging from the response speed of the national emergency response system to online teaching, teaching at all levels basically has the basic conditions for online teaching. As far as the convenience of online teaching platforms is concerned, the reason why such rapid and large-scale online teaching can be implemented is because of the implementation of the system standards for online teaching.

Therefore, in order to expand the teaching network standard of continuing education, a standardized system can be developed to promote the reform of teaching network.

The “Internet +” era provides a good platform for standardized and institutionalized school-level regional cooperation network teaching management. First, by using the regional characteristics of colleges and universities, it can promote regional continuing education cooperation, realize inter-school resource sharing, establish a good teaching cooperation system, and promote good cooperation and reform and development of inter-school teaching networks; it can form a network teaching park, strengthen the resource sharing of regional colleges and universities, build a continuing education network teaching platform, promote a more unified teaching standard construction, and improve the management and delivery quality evaluation process. The above projects have a strong role in promoting the development of continuing education.

6.2. The Quality of Curriculum Design. Continuing education is an integral part of higher education, a part of the process of creating a learning society, and a new way of education. In the process of realizing lifelong education, more emphasis is placed on mass education and education, and its audience is wider than ordinary higher education. However, there are differences between the two in terms of training objectives and details, social adaptation, etc., and there are naturally differences in educational management and teaching quality. At present, continuing education management implements both “online + offline,” focusing on face-to-face teaching and online teaching. However, the use efficiency of online teaching platform is obviously low, which hinders the improvement of teaching management quality. At present, in the process of continuous education online teaching quality reform and improvement, it is necessary to formulate corresponding teaching management quality standards, gradually improve the information-based teaching management model, and realize the full integration of public resources, and teaching and public management with various platforms.

- (1) Promote the construction and use of networked teaching platforms in colleges and universities. At present, colleges and universities cannot fully realize the full implementation of online teaching. Therefore, while ensuring the quality of current centralized face-to-face teaching, it is necessary to speed up the construction of their own online teaching platform quality management standards to ensure teaching quality and teaching process progress.
- (2) Establish a continuous learning system on the education network platform. In view of the outbreak of the epidemic all over the country and in response to the call for “suspending classes without stopping learning,” we can notice the country’s investment in online teaching and know that all levels of education have implemented a check-in system for online teaching courses. Of course, for primary and secondary school students and full-time college students, the daily punch-in system can actually play a good role in teaching management, but for online

teaching in continuing education, it is necessary to adapt to local conditions. It is necessary to form targeted teaching management quality standards according to the fragmentation of the adult learning process, rather than having to be online every day, so it is necessary to implement flexible system introduction. The first step is that teachers and teaching administrators formulate teaching plans according to the characteristics of the courses, complete the standards, and reasonably quantify the learning progress of students. The second step is to use social software groups such as network platforms managed by QQ groups and WeChat groups to teach professionally. Publish the teaching plan management regulations corresponding to uploading online courses.

6.3. Sharing of Platform Resources. At present, there are still some difficulties in realizing the joint reform of continuing education in colleges and universities and building a large-scale “artificial intelligence + education” continuing education network platform. If we want to break this independence, we need to continue the educational network, realize the joint sharing of teaching resources, realize the development of regional inter-school teaching cooperation, and gradually expand and develop into an “artificial intelligence + education” network teaching platform.

The continuing education network construction of the teaching management platform carried out by various colleges and universities is currently decentralized, and there is a certain gap in the implementation of resource sharing. When implementing online teaching, continuing education colleges have their own systems to build online teaching platforms. In fact, in the process of continuing education, there is a certain degree of overlap between majors and courses, and although colleges and universities have developed other aspects of the learning management platform, the training resources are not. If there is no effective resource sharing, it will cause waste and uneven quality of online education resources, which will seriously affect the quality of continuing education.

Therefore, in the process of developing continuing education management informatization, we can consider creating a resource sharing platform, establishing unified standards and designing compatible public interfaces, so that educational resources can be attached to the platform. At present, a province in China has built a continuing education network park, integrating continuing education resources supported by colleges and universities in the province to build an online education management platform.

7. Conclusion

The online continuing teaching system can effectively meet the actual needs of students. The core application technologies of the system are multimedia technology and artificial intelligence technology. The continuous education online

training system can be used to discuss and exchange learning problems in real time, thus becoming a paradise for learning lovers. The continuing education online training system is composed of various educational materials such as text, images, and animations, which can effectively realize online classroom education. Through the rational use of continuing education online training system can bring more knowledge to people. The online education and training system can learn the required knowledge anytime and anywhere, so this system is recognized by most people.

Data Availability

The data used to support the findings of this study can be obtained from the author upon request.

Conflicts of Interest

The author declares that there are no conflicts of interest.

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