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## GCN-ONLSTM: Process Next Event Prediction Method based on Spatio-Temporal Feature Fusion

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**Abstract**: The task of predicting the next event of a process is the focus of research in the field of predictive process monitoring. Most of the existing methods to achieve this task only process the event log trace as a one-dimensional sequence or regular two-dimensional image data, without considering the simultaneous internal synchronization of the event log. It contains temporal and spatial feature information. In addition, existing studiesignore that trace data is a non-Euclidean structure with topological relationships. In order to solve the above problems and further improve the accuracy of model prediction, this paper constructs a GCN-ONLSTM network that fuses temporal and spatial dimension features, constructs the spatial relationship between events through a two-layer graph convolution network, and improves the feature expression ability of data. And combined with ONLSTM (Ordered Neurons LSTM) network to process the hierarchical structure of trace sequence, to further solve the long-term dependency problem. The ablation experiments and comparison experiments are carried out through 6 BPI public event log data. The results show that the proposed method has significantly improved prediction accuracy in each event log compared with other existing deep learning methods, and the highest is higher than the traditional LSTM (Long Short-term Memory) increased by 8.63%, it can be considered that this method has better performance for the next event prediction task of the process.

Keywords: Prediction of the next event; Graph convolution neural network; ONLSTM; Predictive monitoring; Deep learning

#### **1. INTRODUCTION**

Process Mining (PM)<sup>[1]</sup> is the systematic use of event data to analyse and improve business operational processes, using this technique to identify bottlenecks and deviations in production processes, diagnose compliance issues, reduce failure rates and avoid repetitive tasks <sup>[2][3]</sup>.

As a branch of the process mining field, Predictive Process Monitoring (PPM)<sup>[4]</sup> aims to predict the future of ongoing process execution, often using historical complete executions to predict open (incomplete) case scenarios. This includes predicting the outcome of process execution in advance<sup>[5]</sup>, the next event in the business process <sup>[6][7]</sup>, and the time remaining in the business process <sup>[8]</sup>, and has demonstrated its value in a number of domains and scenarios such as finance, healthcare, and education, for example, helping organisations to reduce non-essential maintenance costs, provide decision making for process executors, and prevent non-compliant tasks from occurring <sup>[9][10]</sup>.

Most of the existing deep learning-based methods only focus on the temporal correlation of events in event logs and ignore the spatial correlation, and a few scholars consider the spatial connection between events but do not explore the topological relationship between the spaces where the events are located in depth. The above problems lead to deep learning models that can only extract the temporal features contained in the event logs during training, failing to make full use of the rich spatial feature information for learning, resulting in low accuracy and poor interpretability of the models.

To address the above limitations, this paper proposes a spatio-temporal feature fusion model for process next event prediction, which uses Graph Convolution Network (GCN)<sup>[11]</sup>

to extract and compress the spatial feature information of event logs, and further solves the long-term dependency problem of sequence data by Ordered Neurons LSTM (ONLSTM)<sup>[12]</sup>, and captures the temporal features of the data, by making full use of the spatial features and temporal features in the event logs by the above method The spatial features and temporal features in the event logs are fully utilized by the above method, and the next event prediction task for the process is achieved based on the trained feature information. Experimental results in six real event logs show that this spatio-temporal feature fusion model significantly improves the prediction accuracy compared with existing deep learning models.

#### 2. RELATED WORK

In recent years, with the vigorous development of deep learning and predictive process monitoring, more and more researchers combine the two and begin to use deep learning technology to solve the problem of predicting the next event. For example, Theis<sup>[13]</sup> et al. proposed a DREAM-NAPr method, which regarded time characteristic information as element variable. In this paper, the next event task of the process was divided into two categories according to the nature of feature information extracted by the deep learning model.

Next event prediction methods based on temporal feature information: Everman<sup>[14]</sup> et al. used a combination of two LSTMs for next event prediction using trajectory prefixes. tax <sup>[15]</sup>et al. were inspired by the above methods and made the prediction model perform better by multi-task learning. nguyen<sup>[16]</sup> et al. proposed a time-aware T- LSTM method, while introducing a cost-sensitive learning approach to address the uneven distribution of event log activities, with a significant improvement in prediction accuracy over other methods.Lin<sup>[17]</sup> et al. proposed an encoder-decoder framework, MM-Pred, by separately encoding attributes such as event name, timestamp, and event status as inputs to the model, which recoded the event internal dependencies to establish a connection and use LSTM networks to complete the prediction. jalayer<sup>[18]</sup> et al. built on the above by introducing a hierarchical attention mechanism to assign different weights to each attribute and combined with BiLSTM networks to further improve the prediction accuracy of the model.

Next event prediction methods based on spatial feature information: unlike the first type of methods, other researchers have argued that the spatial feature information in logs can be well extracted by CNNs. For example, Al-Jebrni<sup>[19]</sup> et al. used a five-layer one-dimensional convolutional neural network to process sentences, combined with a convolutional neural network to learn the spatial local information in them for subsequent prediction Pasquadibisceglie<sup>[20]</sup> et al.converts each track prefix in the historical event log into a two-dimensional image data structure. However, limited by the CNN structure, it is difficult to solve the problem of long-term data dependence. In the authors' subsequent study <sup>[21]</sup>, the next event prediction task was still converted to an image classification task by recoding the event data as RGB images and introducing the Inception structure to improve the network structure.

In summary, most of the existing studies only deal with event log data from a single perspective, but the data can be regarded as a kind of graph structure with both spatio-temporal characteristics, while temporal attributes such as timestamps play a key role in the prediction effect of the model, so it is necessary to use both temporal feature information and spatial feature information of the data together to complete the next event prediction task. In this paper, we propose a spatio-temporal feature fusion network combining GCN and ONLSTM, extracting spatial feature information in event days by GCN, and ONLSTM network by introducing a hierarchical structure to fully extract temporal feature information and further solve the problem of long- and short-term dependency of event log data.

#### 3. A PROCESS NEXT EVENT PREDICTION MODEL WITH SPATIO-TEMPORAL FEATURE FUSION

#### 3.1 Model Overview

In order to improve the accuracy of business process next event prediction and make full use of the temporal and spatial information of the event sequence, a process next event prediction model with fusion of temporal and spatial features is proposed, and its model structure is shown in Figure 1.

The proposed spatio-temporal feature fusion process next event prediction model is constructed by GCN and ONLSTM, which can build hierarchical relationships between events and further improve the next event prediction accuracy by considering the event time series and using the spatial structure between events, mainly including the following steps:

(1) Constructing the graph structure of the event log and extracting spatial features: the events in the trajectory are constructed as nodes in the graph structure, and the temporal order occurrence relationship of the events is constructed as the structural features between the nodes, from which the adjacency matrix of the graph structure of the event log can be constructed. The constructed adjacency matrix is used as the input to the graph convolutional neural network to extract the spatial features of the event log.

(2) Extracting the temporal relationships and hierarchical structure between events: The output of the graph convolutional neural network is used as the input to the ONLSTM, which determines the preservation and deletion relationships between historical and input information through two update mechanisms.

(3) Iterative training: The method proposed in this paper carries out iterative training on top of the next event prediction, changing the input trace prefix after each training, so as to achieve the prediction of subsequent events, which can be followed up in real time in real business processes.

## 4. RELATED EXPERIMENTS AND ANALYSIS

This chapter verifies the feasibility of the GCN-ONLSTM model in the process next event prediction task by designing relevant ablation experiments and comparison experiments, aiming to analyse whether the model can make full use of the inter-event correlation in this task and the impact of using only temporal feature information and fusing temporal feature information on the prediction accuracy.

#### 4.1 Experiment-related Environment

All experiments in this paper were done on Windows 10, using a GeForce RTX 2070 SUPER 8GB graphics card, programming language Python 3.7, and code built with the deep learning algorithm library Pytorch 1.1.0.

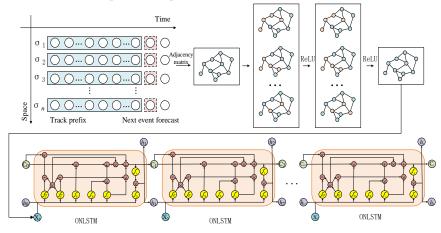


Figure. 1 Process next event prediction method based on spatio-temporal feature fusion

#### 4.2 Introduction to the Event Log

To exemplify the effect of each comparative experimental model on the prediction effect of the next event task in a real scenario, six 4TU Center for Research open source real event logs were selected for this paper, namely:

(1) Helpdesk event log: data related to a company's ticket management.

(2) BPIC\_2012\_A event log: data related to a financial institution's loan application and follow-up process.

(3) BPIC\_2012\_O Event Log: A financial institution's data related to loan application matters and subsequent processes.

(4) Prepaid\_Travel\_Costs Event Log: Data related to the travel reimbursement of employees in a department for domestic or international travel.

(5) Road Traffic Fine Management Process (RTFM) Event Log: Data relating to penalties for road traffic violations by a traffic management department. (6) Hospital Billing Event Log: Data related to a hospital's medical service process.

#### 4.3 Experimental Results and Analysis

In order to ensure the uniformity of variables in the comparison experiments, the experiments in this paper were trained to full convergence for each model, the optimiser was set to Adam, the initial learning rate was  $1 \times 10^{-4}$ , and the regular term coefficient was  $5 \times 10^{-4}$ . Accuracy was selected as the evaluation index to assess the prediction effectiveness of the model, and in order to avoid the random situation of the deep learning model in the next event prediction task of the process, the comparison Experiments were all conducted using a 5-fold cross-validation approach.

In order to explore the effect of mining sufficient information of temporal features on the prediction effect of the model, a set of pairwise experiments were designed in this paper, in which LSTM and its related variants, GRU and its related variants were selected as the prediction models, and the experimental results are shown in Table 2.

Predictive				Data sets		
models	Helpdesk	BPIC_2012_A	BPIC_2012_O	Prepaid_Travel_Costs	RTFM	Hospital Billing
LSTM	0.7593	0.7347	0.7698	0.8528	0.7685	0.8626
ATT-LSTM	0.7781	0.7378	0.7866	0.8501	0.7658	0.8672
BiLSTM	0.7675	0.7353	0.7805	0.8570	0.7665	0.8637
ATT-BiLSTM	0.7914	0.7623	0.8173	0.8769	0.7836	0.8818
GRU	0.7659	0.7232	0.7952	0.8684	0.7517	0.8645
ATT-GRU	0.7592	0.7303	0.8084	0.8701	0.7536	0.8694
BiGRU	0.7615	0.7311	0.8103	0.8779	0.7498	0.8602
ATT-BiGRU	0.7829	0.7485	0.8291	0.8826	0.7683	0.8793

 Table 2. Experimental results comparing the predictions of LSTM and GRU and their variants

Table 3. Experimental results of ATT-BiLSTM, ATT-BiGRU, ONLSTM and GCN-ONLSTM network prediction comparison

Predictive				Data sets		
models	Helpdesk	BPIC_2012_A	BPIC_2012_O	Prepaid_Travel_Costs	RTFM	Hospital Billing
ATT-BiLSTM	0.7914	0.7623	0.8173	0.8769	0.7836	0.8818
ATT-BiGRU	0.7829	0.7585	0.8291	0.8826	0.7683	0.8793
ONLSTM	0.8132	0.7802	0.8318	0.8809	0.7913	0.8804
GCN-ONLSTM	0.8287	0.8018	0.8561	0.9174	0.8059	0.8962

Among the variant structures of the various types of deep learning models in the comparison experiments, BiLSTM and BiGRU both refer to the bi-directional structure of the original model and aim to jointly compute the model output by introducing a reverse sequence in combination with the original input sequence for extracting richer contextual feature information; ATT-LSTM, ATT -BiLSTM and ATT-GRU, ATT-GRU the attention mechanisms introduced in the model are all self-attentive structures, aiming to make the model take more account of the interrelationships that exist between events when calculating in this way.

In this paper, we consider that any complete trace in an event log can be mapped to a hierarchical structure that can be abstracted as information about the temporal features contained in the data, and if the model can be made to better understand the hierarchical structure, then the model can be considered to adequately extract the temporal information contained in the data. To test this idea, a set of comparative experiments was designed in this paper, and the model predictions in each event log are shown in Table 3.

The above results demonstrate that ONLSTM performs better in most event logs in a business process context, i.e. it proves that by using the sequential information of neurons and thus learning the hierarchical structure of the event logs, the temporal feature information in the data can be better extracted. To further validate the importance of fusing spatio-temporal feature information for the prediction task, this paper compares the performance of GCN-ONLSTM and other models in each real-event task, and the results are shown in Table 3.

The experimental results show that the GCN-ONLSTM model has better prediction robustness and significantly better prediction results than the ONLSTM model, i.e. the model incorporates spatio-temporal feature information that is more useful for the prediction task, and also shows that the GCN is able to incorporate the sequential nature of the business process task, and for non-Euclidean data such as event logs, the GCN improves the data by modelling the spatiality of the trace data For non-Euclidean data such as event logs, GCN improves data representation by modelling the spatiality of the trace data, while using a two-layer GCN is able to learn more relevant positional relationships between events by increasing the perceptual field of the convolutional kernel, which in turn leads to better prediction results.

#### 5. CONCLUSION

In order to simultaneously utilise the spatio-temporal feature information in the event day, this paper designs a GCN-ONLSTM spatio-temporal feature fusion network as a way to build a model for the process next event prediction task, which fully extracts spatial feature information by introducing a two-layer graph convolutional network structure to correlate up the spatial relationship between events, while using the ONLSTM structure to learn the hierarchical structure contained in the trace The long-term dependency of the data is further addressed.

Although the method proposed in this paper is able to make full use of the information on temporal and spatial features contained in the event log, there are still other problems. This study models the spatial and temporal correlation of events from their timestamp attributes, and does not analyse the impact of other attributes of events on the prediction effectiveness of the model.

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### Research on the Positive Impact of Information Technology on Student Education in Higher Vocational Colleges in the Era of Big Data

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**Abstract**: Under the background of big data, scientific application of big data technology can effectively improve the informatization construction level of education and teaching management in higher vocational colleges. This paper takes the informatization of higher vocational education and teaching management as the research object, analyzes the advantages of applying big data technology to higher vocational education and teaching management, and proposes specific ways to accelerate the improvement of the informatization level of higher vocational education and teaching management. Give full play to the guarantee role of education management and cultivate students' professional quality. Therefore, through the value analysis of educational management reform in higher vocational colleges, the article clarifies the new requirements of educational management reform in higher vocational colleges, and discusses the new strategies of educational management reform in higher vocational colleges.

Keywords: positive impact; student education; higher vocational colleges; big data

#### **1. INTRODUCTION**

With the rapid development of Internet education platforms and mobile devices, the modern education system has gradually entered the era of online and offline hybrid teaching, with great changes in curriculum teaching objectives, teaching forms and teaching models. At present, through the actual investigation of ideological and political course teaching in higher vocational colleges, it is found that the ideological and political course teacher team has generally adopted multimedia information technology, online education platform and financial and creative tools to carry out ideological and political teaching activities, greatly improving the effectiveness of ideological and political course teaching and students' learning initiative.

The reason why it is called big data is that it has the characteristics of massive data, diverse forms and fast processing, and it is precisely these characteristics that enable big data technology to screen and process the required data in a timely manner in the massive data, and analyze the information correlation between the massive data, mining the value behind the data, and giving full play to the social value that big data can play. In the context of the information age, It often requires a certain amount of storage space to retain data from different sources and different coding formats. In people's daily production and life, massive data information will be generated, especially for large-scale production and processing of enterprises, and the growth rate of data information is particularly significant.

Big data also has a profound impact on university education management. The big data management mode abandons the traditional education mode, achieves the information management of education and teaching, and promotes academic exchanges, knowledge sharing and cultural dissemination in different regions. Online distance learning provides a wide range of learning platforms for all students, and realizes a new teaching and learning mode of free choice of learning content anytime and anywhere, which truly reflects the essence of learning. Open learning without time and space is the mainstream teaching environment in the era of big data, which can change the situation of boring learning and passive learning in the traditional classroom. In the era of big data, the Internet has become an important tool in education and teaching practice. Because of the highly interactive characteristics of the Internet, teachers and students can break through the limitations of external factors such as time and space, and carry out real-time communication and interaction, then form a good teacherstudent relationship.

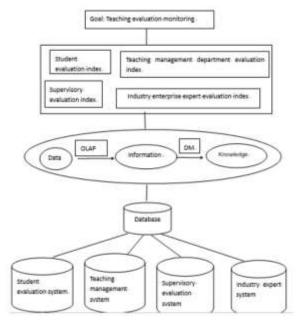


Figure. 1 Digital teaching evaluation monitoring mode (from the Internet).

#### 2. THE PROPOSED METHODOLOGY

#### 2.1 Advantages of applying big data technology to education and teaching management in higher vocational colleges

In the process of communication, students are found to have problems in learning, and targeted suggestions and help are given to them, so as to promote the better implementation of various educational management measures. As a book dedicated to studying the impact of information technology on ideological and political education in higher vocational colleges, this book combines the development trend of modern big data technology, and based on the development status of ideological and political course teaching in modern higher vocational colleges and the problems existing in teaching practice, carries out in-depth discussion and analysis from teaching concepts, teaching methods, team construction, system training and tool introduction, and achieves the combination of theory and practice, It has high reference value and significance.

The introduction of ideological and political education mode under the background of big data and information thinking shows that in the era of Internet information, college students' ideological and political content is more abundant. Using big data technology, students can often break through the limitations of sample size when conducting surveys, and more convenient to obtain complex data. The era of big data has brought innovation in the work of ideological and political education in colleges and universities, and teachers can better realize the teaching of students with the help of big data technology. With the diversification and complexity of the social environment, the importance of ideological and political education in higher education is further highlighted. In the context of the rapid popularization of the Internet and the increasing improvement of computer information technology, more and more students are disturbed by network ideas.

The ideas of money worship, hedonism and self-interest in the Internet are not firm in political positions. Higher education has its own development laws, and the development of higher vocational education is affected by many factors. The arrival of the era of big data will have a huge impact on the education system of higher vocational colleges. In the era of big data, the "smart" campus information system will record all traces of online behavior left on the campus resource sharing platform in detail, that is, the mouse click data of each user of the sharing platform. The working concept of education management directly affects the education management model and the final effectiveness of education management.

## **2.2** The impact of big data on information education in higher vocational colleges

In the era of big data, the first step for higher vocational colleges to carry out education management reform is to achieve an all-round update of the teaching management concept, break through the traditional teaching management thinking in the past, and attach importance to the "Internet plus" thinking as the guiding thinking of teaching management, so as to effectively promote teaching management to adapt to the new requirements in the era of big data in terms of working ability, information management level and information security guarantee.

First of all, we should continue to deepen the teaching system of ideological and political education in colleges and

universities under the guidance of the idea of big data. For example, when selecting the classroom content and teaching cases, the practicability of teaching can be judged based on the data such as the scale of the current application of the teaching courseware; Utilize big data technology to realize the sharing of curriculum education, so that students can choose their interested learning direction according to their personal preferences. As an important part of the education system, higher vocational colleges are an important place to deliver high-quality skilled talents to the society.

There is a close relationship between higher vocational colleges and social departments, including social employers, talent market and educational administrative structure. It is a high-level thinking quality. In the teaching process, teachers' professional and technical ability occupies an important position. In addition, data analysis ability is also a very important skill that teachers need to master.

Big data is actually a double-edged sword. While providing convenience for the industry and work, there are also some security risks. Schools need to strengthen the construction of security systems, pay attention to data security management and control, to reduce the risk coefficient. In the process of information education development in higher vocational colleges, information data will show geometric growth, which requires higher vocational colleges to set up data analysis courses, guide teachers to conduct in-depth analysis of students' relevant data, analyze data content with teaching value in the huge data group, and apply the analysis results to teaching activities.

Including education management work, so as to better simulate and optimize the education management plan and better carry out the education management practice. In this regard, higher vocational colleges and cooperative enterprises should develop and design special education management software based on their actual education management needs, and use this software to complete the digitalization and data processing of education management information, effectively promoting the integration of education management and big data technology.

#### 3. CONCLUSION

The development of informatization of education and teaching management in higher vocational colleges has become an important means to improve the teaching quality of higher vocational education and promote the progress of the education and teaching industry. In the future education and teaching management work, it is also necessary to base on its own actual development, take effective means to constantly promote the informatization management work, and realize the construction of the team, hardware and software of education management work by embedding the "Internet plus" development thinking, So as to effectively promote the reform of education management in higher vocational colleges in the era of big data and effectively enhance the effectiveness of education management.

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### Research on the Competence Improvement of Etiquette Teachers in Applied Tourism Undergraduate Colleges under the Mixed Teaching Mode

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**Abstract**: Guided by professional competence, improving the teaching mode of tourism management specialty in application-oriented undergraduate colleges, promoting the construction of "double-qualified" teacher team, and promoting the combination of work and learning, school-enterprise cooperation are the inevitable trend of the teaching reform of tourism management specialty in application-oriented undergraduate colleges. In this regard, this paper focuses on the analysis of the characteristics of the cultivation of professional competence talents in tourism management, and expounds the necessity of improving the practical ability of tourism management students in application-oriented undergraduate colleges and universities with the guidance of professional competence. The innovation and entrepreneurship and practical education abilities of innovation and entrepreneurship teachers in application-oriented undergraduate colleges and universities need to be strengthened. Specifically, the innovation and entrepreneurship education teaching methods, teaching content system, innovation and entrepreneurship opportunity identification Practical guidance and the ability to integrate expertise and innovation are the key points that should be improved or improved. Based on this, the paper puts forward the main countermeasures to improve the innovation and entrepreneurship competence of teachers in application-oriented undergraduate colleges.

Keywords: Competence Improvement; Etiquette Teachers; Applied Tourism; Undergraduate Colleges; Mixed Teaching Mode

#### **1. INTRODUCTION**

Tourism management is a major with strong application and innovation, and cultivating students' good practical ability is the basic requirement of its teaching. The application-oriented undergraduate college tourism management talent training model, which is based on professional competence, requires not only to attach importance to the cultivation of students' knowledge and skills, but also to cultivate students' abilities, qualities, qualities, thinking, etc., to promote students' comprehensive and comprehensive development, so that students can better adapt to the needs of social development. Innovation and entrepreneurship teachers are the backbone of training innovation and entrepreneurship talents, and improving their competence is the key to ensure the quality of innovation and entrepreneurship education.

Promoting innovation and entrepreneurship education is an important way for application-oriented undergraduate colleges to achieve transformation and development. Therefore, it is of great practical value to explore the competence of innovation and entrepreneurship teachers in application-oriented undergraduate colleges. Teachers are one of the important factors that affect the quality and effect of mixed teaching. At present, the research on teachers' mixed teaching ability at home and abroad is still very limited. The existing research results show that due to the lack of content on online teaching and mixed teaching in teachers' pre-service education curriculum system, teachers generally lack the preparation for online teaching ability, especially in teaching methods (Xiao, 2016), All these directly affect the enthusiasm of teachers to carry out mixed teaching and students' learning satisfaction. Among the respondents, 54.6% were male and 45.4% were female.

All have bachelor's degree or above, of which 38 have master's degree, accounting for 17.59%. There are 21 senior executives of entrepreneurial enterprises, 23 teachers of entrepreneurial education, and 18 excellent entrepreneurial alumni, accounting for 9.72%, 10.65% and 8.33% of the group respectively. 34.3% of them came from one-child families, 65.7% from non-one-child families and 76.4% from rural families. Among the surveyed groups, 139 people are interested in entrepreneurship, accounting for 64.35% of the total number, including 98 people who have participated in entrepreneurship training. There is a big gap between the teaching concepts and teaching methods of applicationoriented undergraduate colleges and universities and ordinary undergraduate colleges. Its teaching focus is on the application of knowledge and the improvement of operational skills, that is, the improvement of students' personal skills and the improvement of their own professional knowledge system through learning.

#### 2. THE PROPOSED METHODOLOGY

#### 2.1 The Necessity of Improving the Practical Ability of Undergraduate Tourism Management Students in Application-oriented Universities

The teaching of ordinary undergraduate colleges pays more attention to the development of students' theoretical knowledge, and attaches importance to students' in-depth research in a certain aspect. The continuous development of tourism industry puts forward new requirements for the knowledge, ability and quality of students majoring in tourism management. This requires that college education and teaching should be based on the needs of social and economic development, change teaching thinking, adjust teaching arrangements, improve teaching methods, and improve students' practical ability. The teaching of tourism management in application-oriented undergraduate colleges and universities based on professional competence can broaden students' knowledge fields, enhance service awareness, improve students' comprehensive quality, improve students' practical ability and innovation ability, stimulate students' innovation potential, and realize their own value.

(1) Among the only relevant studies, the focus of the research is still on the construction of the competency structure or model of innovation and entrepreneurship education teachers and the improvement of their competency.

(2) The research on the application of competency model to the evaluation of the competency level of innovation and entrepreneurship education teachers is very rare. In fact, only by applying the theoretical model to analyze and evaluate the current level of teacher competence and providing inspiration for practice, can the fundamental significance of model construction be reflected. Blended teaching is a constantly developing concept.

(3) Different researchers mainly define blended teaching from a broad and narrow perspective. In the broad sense, mixed teaching refers to the mixing of different teaching technologies, teaching methods and teaching places, while in the narrow sense, mixed teaching refers to the mixing of online teaching based on Internet information technology and offline teaching based on face-to-face teaching. However, both broad and narrow mixed teaching must meet two necessary conditions at the same time: first, information technology and teaching are integrated. Classroom teaching is the main channel.

## **2.2** Construction of competency evaluation system for practical teachers in application-oriented universities

Teachers of entrepreneurship education in applicationoriented undergraduate colleges and universities need to practice their internal skills diligently and improve the teaching effect through multiple channels. First, improve the knowledge reserve. Learn business knowledge such as accounting, marketing, management, e-commerce, and master domestic and foreign entrepreneurship policies and regulations. The second is to optimize the teaching organization. The teaching effect of small class system is relatively good. College students are relatively perfect in thinking mode and cognitive system, and have strong independent thinking and certain discrimination ability. Therefore, teachers' practical teaching design and other aspects may not be recognized and supported by all students. In the process of carrying out practical teaching, there will be problems such as students' low cooperation.

#### 3. CONCLUSION

To sum up, the application-oriented undergraduate college tourism management talent training model, which is based on professional competence, is a supplement and innovation to the traditional education model. The application-oriented undergraduate colleges and universities should adopt diversified teaching, pay attention to the combination of theory and practice, and do a good job of combining work and study in employment; Strengthen the construction of teaching staff and establish an excellent teaching team with rich practical experience; On the one hand, it helps to understand and grasp the level of practical teachers, and to a certain extent provides a basic basis for the evaluation and employment of teachers in application-oriented undergraduate colleges; On the other hand, promote the improvement of teachers' self-teaching ability, and then continuously improve teaching quality and teaching effect. This is not only the requirement of modern teaching development for teachers, but also the need of transformation and development of application-oriented undergraduate colleges.

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### Probe into the Positive Impact of the Integration of Moral Education into Ideological and Political Education in Colleges and Universities on Student Management

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**Abstract**: The article discusses the shortcomings of ideological and political education in colleges and universities and some problems faced by college students, and carries out theoretical analysis of the "five education" student management model, in order to excavate the possible internal links, and build a "five education" student management model for ideological and political education in colleges and universities, pointing out that five aspects should be done well: to build people with virtue, promote the long-term mechanism construction of students' participation in theory and social practice, This paper probes into the problems of integrating ideological and political education into student management, such as the complexity of students' thinking, the lack of concise management team, and the incompatibility of education management, and accordingly puts forward targeted suggestions, including changing the work concept, implementing the outstanding curriculum platform for talent training, etc.

Keywords: Positive impact; moral education; ideological and political education; student management

#### 1. INTRODUCTION

At present, some colleges and universities pay more attention to the form of ideological and political education, but ignore the content. In the process of management, they pay too much attention to daily affairs management, and neglect the comprehensive training of students. Therefore, colleges and universities need to constantly explore and explore in the process of student education management, find a set of feasible ways to carry out student management, and focus on finding new methods and measures. Ideological and political education mainly uses the conventional moral norms, political concepts and ideological concepts of the group to properly guide the members. This educational link has strong organizational planning and purpose. It is mainly through continuous stimulation and educational guidance to ensure that members form a unified ideological and political concept, actively participate in different social practice activities, and learn self-education and self-regulation.

For the ideological and political education of college students, the essential teaching content and teaching form are relatively complex. Colleges and universities must actively adhere to Marxism-Leninism and Mao Zedong Thought. According to the requirements of deepening the reform of innovation and entrepreneurship education, the university has comprehensively revised the talent training program, and each professional training level integrates innovation and entrepreneurship education into the whole process of talent training, Combining the teaching characteristics of different majors, we will incorporate entrepreneurship and entrepreneurship education into the main position of professional education, refine the quality and ability requirements for innovation and entrepreneurship, reform the credit management method, and set up innovation and entrepreneurship education credits.

Because teaching is often integrated with the concept of quality education and the increasingly mature practice of

higher education, the current concept of higher education has also undergone some changes, from the previous teaching of knowledge as the core, to the comprehensive development of students. Therefore, improving the comprehensive quality and ability of college students is the priority goal of colleges and universities at present, and ideological and political education and student management work are the cornerstone to promote the completion of this goal.

College students ideological and political network education platform is shown below.

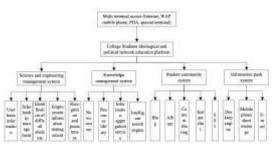


Figure 1 College students ideological and political network education platform.

#### 2. THE PROPOSED METHODOLOGY 2.1 Basic Theory and Model of Tourism Ecological Footprint

College students' ideal and belief education mainly refers to a narrow sense of educational practice. It refers specifically to the purposeful, planned and organized practical activities in conformity with social requirements carried out by educational institutions such as colleges and universities in order to promote college students to establish the common ideal of socialism and the lofty belief of communism. For colleges and universities, in addition to educating students to master professional knowledge and skills, they should also

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guide students in their thoughts and values. Therefore, in the management of students, colleges and universities must combine it with ideological and political education to improve students' moral quality. Of course, colleges and universities must take targeted measures to improve the quality of ideological and political education in student management.

Theory and practice complement each other and promote each other. Only by ensuring the correctness of theory can we point out the way and direction for the later practice. In the process of combining ideological and political education with student management, schools must pay attention to the normal development of theoretical teaching practice activities, and implement the early basic theory curriculum education practice activities, Clearly define the core requirements and contents of improving the ideological and political education of college students. Both the ideological and political education work and the student management work cannot be separated from the first-class work team, or the quality of the work team directly determines the effectiveness of the student management work. In this regard, schools need to take targeted corrective measures against the problems existing in the current student management team, and give full play to the role and value of student management in infiltrating ideological and political education.

## 2.2 The overall image orientation of Guangxi Jinxiu Yao nationality

The immaturity of many college students' minds leads to the inability to effectively resist the erosion of bad atmosphere around them after entering the university campus. Many students' parents or schools are too strict in the management of students at the middle school stage, setting many rules and regulations, paying too much attention to students' academic achievements, and seriously lacking in the guidance or management of ideas, leading to the lack of firmness of some college students' ideas.

First, there are problems in the ideological content and mode of thinking of contemporary college students under the new situation. With the rapid and in-depth development of economic globalization, Internet technology has accelerated the arrival of the information age. A variety of values and cultural trends continue to pour into China, impacting the outlook on life, world outlook and values of college students. Some decadent ways of life are constantly eroding the minds of college students, leading to major changes in the way of thinking of some college students.

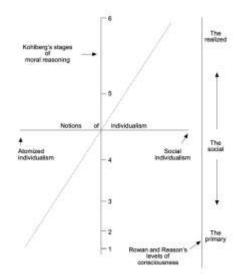


Figure. 1 Notions of individualism, moral reasoning and moral development

It can be seen that some colleges and universities only pay attention to formal education, and do not fundamentally let students truly establish a correct world outlook, outlook on life and values. Therefore, ideological and political education in colleges and universities should be integrated into the daily life of students, both in class and after class. This requires the organic linkage of schools, families and society, and the coordinated development of ideological and political education, extracurricular activities education and social practice education

#### 3. CONCLUSION

To sum up, ideological and political education in colleges and universities must keep up with the trend of the times and carry out innovation, which is both an internal basis and an objective necessity. With the development and change of social practice, science and technology, as well as the tasks, objects and contents of ideological and political education, ideological and political education in colleges and universities can not stay in place, but must keep pace with the pace, and student management is an effective means to correct these deficiencies and improve the efficiency of student management. Therefore, in ideological and political education, on the one hand, schools need to play a good role as the backbone of the existing curriculum platform, On the other hand, we should also rely on student management to improve the effectiveness of ideological and political education.

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### The Positive Influence of College Physical Training Teaching Content on College Students' Mental Health

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**Abstract**: The problem of college students' mental health has become the focus of attention in the educational field. This article takes the impact of college sports dance teaching on college students' mental health as the starting point in order to improve college students' mental health. The author uses the method of literature research and experiment to analyze the influence of college sports dance teaching on college students' (fear, hostility, depression, anxiety), social ability and psychological literacy. Based on the educational function of college sports, this paper discusses the influence and role of college sports teaching on college students' psychological health from five aspects, starting from the standard of college students' psychological health.

Keywords: Positive influence; physical training; teaching content; mental health

#### 1. INTRODUCTION

According to the survey, among the special group of college students, 10% - 30% of the important reasons for college students to drop out of school and suspend their studies are due to their different levels of mental health problems, mental illness and other mental disorders. These psychological problems have even led to more extreme results of suicidal tendencies. At present, the mental health of college students is not only affected by congenital factors, but also by social factors to a large extent. Whether from the perspective of family factors or school factors, the various environments around college students affect their mental health

Therefore, in order to comprehensively improve the level of college students' mental health education, the standards of college students' mental health are mainly reflected in five aspects: (1) having normal intelligence. He has keen observation, good memory, flexible thinking, rich imagination, and is good at distributing and diverting attention. He is willing to learn, eager to learn, good at learning, and can give full play to intelligence. (2) Have a healthy and stable mood. Happy mood, stable mood, moderate reaction, positive emotions such as happy, satisfied, happy, optimistic, cheerful, happy, etc. are dominant, and the body and mind are in a positive and hopeful optimistic state. College students have a strong need for communication and are eager for more people to understand and approach themselves and become their good friends.

However, due to various reasons, such as insufficient communication ability, all of these will lead to their fear of communication and unwilling to communicate with others. In addition, college students in this period already have a selfcentered locking psychology, which has personal and social reasons as well as school education reasons. If these psychological problems can not be adjusted in time, it may cause a series of physiological and psychological reactions, and serious psychological diseases of different degrees. Accompanied by beautiful music, when performing sports dance exercises, the exercisers' mood can be relaxed, and the exercisers will have a sense of satisfaction after completing elegant and beautiful movements, thus improving students' confidence in learning dance and extending this confidence to other aspects of life.

#### 2. THE PROPOSED METHODOLOGY

## **2.1** Characteristics and correlation analysis of psychological quality of college students

In communicating with others, students will spontaneously and actively communicate with others, which increases the opportunity to communicate with others, thus improving the ability to communicate with others. And after learning this kind of communication, learners will have a sense of pleasure in the process of sports dance learning, thus improving their anxiety and inducing them to have positive thoughts and feelings. Can't face up to the difficulties in life and study. So, the family organizational structure of the one-child model is a double-edged sword for children, which creates superior conditions for their growth, and to a large extent leads to their inability to withstand the fierce social competition and face up to difficulties and setbacks:

(1) From the perspective of family factors, the family factors in today's environment are both advantages and disadvantages for college students' mental health. Physical education teaching is a three-dimensional teaching, a living threedimensional space activity, and a teaching based on the right brain thinking activity. When you observe the action demonstration, a three-dimensional action concept will be generated in the right brain; When you listen to the teacher's explanation of the action essentials, you will also conduct a comprehensive analysis of the language or text through the left brain, and then leave a three-dimensional action image in the right brain; The quality of will is shown in the process of overcoming difficulties and cultivated in the process of overcoming difficulties. Modern physical education is an effective means to cultivate the quality of will of college students.

(2) Because sports itself has the characteristics of hardship, intensity, tension, relative resistance and strong competitiveness. When students take part in physical exercise, they are always accompanied by strong emotional experience and obvious willpower efforts. College students, especially female students, can quickly improve their independent ability and get rid of the habit of relying on parents and friends. In addition, women's self-defense skills often need to be transformed and changed to different degrees according to the specific attack moves and attack routines of lawbreakers.

(3) College students often need to consider various different ways that bad guys may attack to update women's self-defense skills when learning. As a public compulsory course, college physical education courses provide an opportunity for students in the whole university to exchange, College students choose a sports project together because of their interests and hobbies. They form a new group because of their hobbies. In such a new group, they compete with each other, learn together, and express different views and suggestions on the same things.

## **2.2** Physical education can improve students' emotional state and coordinate interpersonal relationships

The goal of higher education is to cultivate high-quality talents with all-round development for the society. The allround development of human beings cannot be separated from a sound psychological mechanism. A psychologically healthy person is a person with healthy personality, and the psychological essence of personality is self-consciousness. As a member of the society, people engage in various social practices, which are realized through self-consciousness. As a system of self-awareness, evaluation, coordination, supervision and control, self-consciousness is an important part of the personality system and the core force to integrate and unify all parts of personality

Emotion participates in almost all human activities and plays a great role in regulating human behavior. Sports activities can directly give people pleasure and joy, and can reduce tension and anxiety, thus regulating people's mood and improving mental health. In life, we often find that those who have good interpersonal relationships are always happy, energetic, and interested in everything. These people live happily. During the process of learning sports dance, students can experience the cooperation between teams, mutual help and collective sense of honor. These feelings help improve the personality of college students. Some students may lack advantages in academic performance and lack confidence, However, I am interested in sports dance, which can explore the potential talents of college students, enhance their selfconfidence, and improve their world outlook, outlook on life and values. Physical education in colleges and universities has remained in the traditional physical education mode, and the training mode for students has not been optimized, which is difficult to meet the needs of college students for sports learning in today's environment.

#### 3. CONCLUSION

In colleges and universities, sports dance teachers should improve their own dance quality and other related qualities, at the same time, master relevant psychological knowledge, accept new sports dance concepts, and combine sports dance teaching and psychological education Strengthening physical education in colleges and universities can provide a certain auxiliary role for college students' mental health education,

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### Innovative Research on the Integration of Calligraphy Aesthetics into Chinese Painting Education from the Perspective of Traditional Culture

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**Abstract**: The fundamental purpose of college education is to cultivate comprehensive talents with all-round development, and its primary task is the development of moral education. As an excellent representative of Chinese excellent traditional culture, calligraphy art education has a natural close relationship with moral education, which determines that it has a certain role in promoting moral education. This paper attempts to explore an effective way to integrate calligraphy art education into moral education in colleges and universities, so as to promote the realization of the fundamental purpose of college education.

Keywords: Innovative Research; Calligraphy Aesthetics; Chinese Painting Education; Traditional Culture

#### **1. INTRODUCTION**

The main content of art education is to gradually influence students' artistic sense and psychology through excellent artistic works and according to the laws of artistic creation and appreciation, and help students develop keen artistic perception, rich imagination, independent perception, insight and creativity. It is of great significance to integrate calligraphy art education into the purpose of moral education and to carry out it in an all-round way in college education. In view of the research and elaboration of traditional Chinese calligraphy and painting, the author uses different methods and language to analyze the authors and works with different backgrounds and styles

In view of the emergence, evolution, dissemination and development of calligraphy and painting, the author has carried out a long and historical discussion. As an art form, calligraphy has provided the most direct reference for the art form of line modeling of Chinese painting by its artistic effect and the rhythm and rhythm formed by its point, line thickness, length, broken, slow and dry. The use of lines in the modeling of calligraphy and painting is not only the same in nature, but also the same in the aesthetic theory of lines.

Therefore, the beautiful meaning of lines has become an indispensable aesthetic prerequisite for Chinese painting. Bring the works into the development of the history of Chinese painting and calligraphy, and explore its causes and changes. The explanatory text in this book presents the original profound art research in the form of storytelling, which is very interesting. At the same time, the book also follows the characteristics and laws of calligraphy and painting, and analyzes and reveals the social significance and aesthetic value of calligraphy and painting works and artistic phenomena. There is no doubt that holding a calligraphy exhibition can be one of the most important forms of art education activities in colleges and universities.

In combination with current political events, calligraphy art exhibitions with relevant themes can be held on campus, which can be taken from local famous artists, and students can also be encouraged to contribute more works, promote the excellent culture of the Chinese nation, stimulate students' feelings of home country, and effectively integrate calligraphy art into political, ideological and moral education. The education of calligraphy art is not limited to classes, activities, competitions and exhibitions, but also to create a good calligraphy environment in the campus of colleges and universities, create an atmosphere full of calligraphy art atmosphere, let students live in the sea of calligraphy art all the time, imperceptibly, and deeply influenced by the eyes. It can also effectively improve students' calligraphy art cultivation and cultivate sentiment. Especially, it has made a very good theoretical expression of painting aesthetics.

#### 2. THE PROPOSED METHODOLOGY

## 2.1 The current situation of the application of calligraphy aesthetics in traditional Chinese painting

South Qi Sheikh put forward the earliest and most systematic painting theory "six methods". It is difficult to say that it is not affected by Wang Sengqian's calligraphy aesthetic theory. In terms of its content, except for the "pictographic representation of objects" and "coloring according to categories", which are not up to the standard of calligraphy, the other four methods, such as "vividness", "use of bone techniques", "business location", and "transfer and copying", are consistent with the basic principles of calligraphy creation. The specific ways to create a good calligraphy environment include: first of all, display famous posters and inscriptions in prominent places with large crowds of people, such as the school gate, library, office building and teaching building, which can not only enhance the cultural atmosphere of these buildings, but also facilitate students to observe them day and night; Secondly, in classrooms, dining halls, corridors, dormitories and other places, a variety of exhibition areas for students' excellent calligraphic works have been opened up. Chinese characters have become abstract from concrete images, or Chinese characters have become independent from painting, which is a kind of historical progress and artistic

luck, while the differentiation of calligraphy and painting has caused the cultural status of painting in history to plummet.

However, with the development of history, calligraphy, as an independent abstract art, has gradually infiltrated into painting, promoting painting to have more abstract factors, which is also a historical progress. In order to further enhance students' understanding, interest and recognition of the art of calligraphy, the exhibition will be broadcast in turn at the event site. In addition, we can also regularly hold calligraphy contests, encourage students to participate widely by submitting existing calligraphy works, on-site real-time writing and other multiple selection methods, and invite famous calligraphers and art educators to conduct on-site evaluation and close professional guidance to create an annual calligraphy art feast.

## **2.2** Innovative measures of integrating calligraphy aesthetics into Chinese painting education

In terms of performance, Chinese painting has changed from the emphasis on "painting form" before the Tang Dynasty to the emphasis on "freehand brushwork" in literati painting after the Song and Yuan Dynasties, pursuing the artistic conception and charm, leaving the spirit unintentionally, and advocating the pursuit of ideal beauty and abstract beauty beyond the abstract. These two kinds of beauty are just the reflection of the painter's psychological straightness and secret, and a sublimation of emotion. It is the existence of these factors that have made traditional Chinese painting in a semi-abstract state of similarity and dissimilarity for thousands of years. In order to enhance the enthusiasm of the majority of teachers and students in calligraphy, it is also necessary to carry out various publicity activities on campus. For example, by displaying banners, posters, delivering leaflets, mass texting and other media means, directly and timely publicize the latest campus calligraphy art education and activities to the majority of teachers and students in colleges and universities, encourage them to invest more enthusiasm and support for the calligraphy art education on campus, and work together on campus, Contribute to the comprehensive and long-term development of students and schools.

The principle and law of the development and change of Chinese calligraphy is from complex to simple, and the performance of Chinese painting that gradually tends to be simple is related to this, especially the literati painting, which is characterized by simplicity. Most of the literati painters are calligraphers. In order to seek simplicity, they use the strokes of the book for painting. Zhao Meng of the Yuan Dynasty was the outstanding representative. The strokes in his painting "The Painting of Bamboo and Stone" also include the three forms of calligraphy: Zhou, Feibai and Lishu. If we can say that Su Shi in the Song Dynasty put forward the artistic conception requirements of literati painting by saying that "poetry and painting are based on the same principle, natural craftsmanship and freshness"

Then, Zhao Meng's "painting with calligraphy" proposed to achieve the artistic conception of literati painting with pen method, so that the theory and practice of literati painting reached unprecedented integrity and unity. Calligraphy education has been included in the basic education stage. Under the joint effect of family education and social education, the trinity teaching mode has enhanced the participation of calligraphy education. Pay attention to the teaching consolidation of calligraphy education and realize the lifelong impact on primary and secondary schools. The allocation of calligraphy education resources should reflect rationality, achieve effective cooperation in different environments and occasions, and achieve mutual coordination and mutual promotion of teaching consolidation.

#### 3. CONCLUSION

In the great journey of building a powerful socialist country in China, we have put forward the idea of creating a learning society and advocating learning and lifelong learning. As one of the most important education positions, colleges and universities should implement this idea in their own education field. As a typical representative of the traditional excellent culture of the Chinese nation and an important carrier of the national spirit, as long as the essence of Chinese painting is based on the spirit of traditional Chinese culture, the aesthetic significance and spiritual connotation of calligraphy to Chinese painting will not change. Therefore, whoever negates calligraphy will negate pen and ink. To negate the spiritual essence of Chinese painting is to split the tradition and cancel Chinese painting. It can be seen that this is not feasible, and the outcome is tragic.

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## Research on the Barriers and Legal Countermeasures of Exporting Traditional Chinese Medicine to ASEAN Countries under the Background of the Belt and Road Initiative

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**Abstract**: The total amount of China's exports of Chinese medicinal materials to the world and the trade competitiveness index gradually declined, but the exports of Chinese medicinal materials along the "the Belt and Road" increased significantly. The main problems faced by China's export trade of traditional Chinese medicine include the lack of quality standard system, the establishment of technical barriers to trade in importing countries, and the insufficient development of the export market of traditional Chinese medicine. The "the Belt and Road" initiative has brought opportunities to the international development of Chinese medicine, and has provided a broad market space for the development of Chinese medicine industry. The "the Belt and Road" strategy and the expansion of demand for traditional Chinese medicine in the international market have brought good development opportunities for the export trade of traditional Chinese medicine. However, cultural differences at home and abroad, international trade barriers and competition in the same industry have also brought threats and challenges to the export trade of traditional Chinese medicine in Gansu.

Keywords: Barriers; Legal Countermeasures; Traditional Chinese Medicine; ASEAN Countries; Belt and Road Initiative

#### **1. INTRODUCTION**

Since the implementation of the "the Belt and Road" national development strategy, China has continuously strengthened trade exchanges and deepened investment cooperation with countries along the "the Belt and Road". In 2016, the total import and export volume between China and countries along the "the Belt and Road" was 6.3 trillion yuan, up 0.6%, and 56 economic and trade cooperation zones were built in more than 20 countries along the line. Since 2017, China's foreign trade has enjoyed a good momentum and rapid growth. As of March 2017, China's import and export to Russia increased by 37%

Green trade barriers are a series of import restriction measures formulated by importing countries for the purpose of protecting natural resources, ecological environment and human health, mainly including international and regional environmental protection conventions, national environmental and regulations protection standards, ISO14000 environmental management system and environmental signs and other voluntary measures Production and processing methods and environmental cost internalization requirements. As one of the major commodities with the most independent intellectual property rights in China, the traditional Chinese medicine industry, driven by major strategic plans and legal documents such as the Outline of the "Healthy China 2030" Plan, the Law of Traditional Chinese Medicine, and the Chinese medicine "the Belt and Road" Development Plan (2016-2020), takes advantage of the opportunity of demand recovery in the international market, The overall import and export showed a trend of simultaneous increase.

According to the 2017 Analysis Report on the Circulation Market of Chinese Medicinal Materials issued by the Ministry of Commerce, the export volume of Chinese medicinal materials in 2017 was 223500 tons, an increase of 9.51% year on year. In the cultivation of Chinese medicinal materials, Gansu Province has few planting bases that meet the GAP standard, the use of pesticides and fertilizers is not standardized, and pesticide residues and heavy metals exceed the standard from time to time.

In addition, the mechanization and intensification of the primary processing in the producing areas of Chinese medicinal materials are relatively low, which makes the cost of the production of Chinese medicinal materials on the high side. In the production of traditional Chinese medicine slices, there is a lack of specialized processing equipment, the production process follows the traditional method, and the international standard system of traditional Chinese medicine that conforms to the international market has not yet been established. The "International Coordinating Committee on Technical Requirements for Registration of Human Drugs" launched by the United States, the European Union and Japan aims to solve the national differences in drug registration, approval documents and formats, and has developed common technical documents.

#### THE PROPOSED METHODOLOGY The export of Chinese medicinal materials in ASEAN and the "the Belt and Road" region increased significantly

At present, CTD has become the internationally recognized document preparation format for drug registration. According to the analysis of the data collected by the Customs, the Chinese Medical Insurance Chamber of Commerce concluded that the nature of Chinese herbal medicine export enterprises is mainly divided into three categories: state-owned enterprises, foreign-funded enterprises (including Sinoforeign cooperative enterprises, Sino-foreign cooperative enterprises and wholly foreign-owned enterprises) and private enterprises (including private enterprises, collective enterprises and individual businesses).

According to customs statistics, a total of 1209 enterprises carried out the export business of traditional Chinese medicine in 2017, including 1014 private enterprises, accounting for 84% of the total number of traditional Chinese medicine export enterprises.

From the perspective of total exports of traditional Chinese medicine, the export volume of traditional Chinese medicine created by private enterprises is 2.4 times of the sum of foreign-funded enterprises and state-owned enterprises, with a contribution rate of 70.76%. When the green logistics mode is adopted, the total cost of products will increase to a certain extent, which will lead manufacturers to make two choices: first, increase the export price of products; The second is to ensure that the market share price remains unchanged. Among them, we have discussed the situation of unchanged price. Therefore, this paper focuses on the strategy of importing country C when the price changes. Break through the legal, policy and technical barriers that restrict the development of foreign trade of traditional Chinese medicine overseas, strengthen the international protection of intellectual property rights of traditional Chinese medicine, and expand the international market access of traditional Chinese medicine service trade.

#### 2.2 The "the Belt and Road" initiative has brought opportunities for the international development of traditional Chinese medicine

The Plan for the Development of Traditional Chinese Medicine Health Services (2015-2020) proposes to build ethnic medicine industrial zones in border areas and improve the R&D and manufacturing capacity of ethnic medicine and related products based on the Silk Road Economic Belt, China-ASEAN (10+1), Lancang-Mekong River Dialogue and Cooperation Mechanism, Greater Mekong Subregion and other regional and sub-regional cooperation mechanisms. If the TC index is greater than zero, it indicates that the goods have strong international competitiveness. The closer to 1, the stronger the competitiveness; If the TC index is less than zero, it indicates that the goods are not internationally competitive. The closer they are to - 1, the weaker their competitiveness is; The index is zero, indicating that such goods are intra-industry trade, and their competitiveness is comparable to the international level.

With regard to the TC index of Chinese herbal medicine exports, the author obtained Table 2 according to the data statistics and calculations of China Business Database. According to the "Engel's Law", when the income level of consumers increases, they will prefer the goods with higher prices and better quality, and they are willing to pay higher prices for the goods with the same quality. At this time, the relationship between price and revenue is shown in Figure 1 (I), that is, revenue and price are positively correlated. In Europe, botanical drugs have been used for more than 700 years, and have a legal status in European countries. The EU Traditional Herbal Medicine Decree, which was officially issued and implemented on April 30, 2004, is the first regulation formulated by the EU for traditional herbal medicine, providing a good opportunity for China's traditional Chinese medicine products to export to the EU; At the same

time, the European Union recognizes traditional Chinese medicine as medicine, which has a very positive significance in promoting the recognition of traditional Chinese medicine in the United States and other countries. China's current quality standard system for traditional Chinese medicine has not been established and improved.

First of all, in the quality of raw materials, the planting mode of "company+base+standardization" is not implemented, but the raw materials of traditional Chinese medicine are mainly collected by means of acquisition. Many farmers blindly introduce traditional Chinese medicine or select seeds with poor quality and seed quality, and the source supervision is difficult, resulting in the decline of the internal quality of traditional Chinese medicine, low efficacy and even unbearable for use.

#### 3. CONCLUSION

We will explore the training mode of specialized talents in international trade of traditional Chinese medicine, cultivate a large number of talents who are in urgent need of traditional Chinese medicine, and carry out the cross-combination research of international trade and anti-technical barriers. According to the quality of Chinese medicinal materials exported at home, we will actively negotiate with foreign countries for unscientific and unreasonable technical restrictions, break the technical barriers set by foreign countries for the export of Chinese medicinal materials of plants, and actively explore the international market.

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### Research on English Teaching in Higher Vocational Colleges based on Flipped Classroom Model

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**Abstract**: In higher vocational English teaching, flipped classroom, as an information-based teaching method, can achieve better classroom effects than traditional teaching methods. However, with the development of the times, today's flipped classroom teaching mode is also facing the problem of appropriate innovation. As a new cloud service platform represented by smart phones, cloud class can effectively support innovative flipped classroom and online teaching. Perfect the teaching behavior to construct active and effective teaching content, achieve the maximum effect within the unit teaching time, and cultivate students' effective English autonomous learning strategies and higher autonomous learning ability; Can teachers improve their level and ability to use micro-class to optimize and strengthen the content of the course, so as to improve students' English language quality and improve students' comprehensive ability to use English.

Keywords: English teaching ; higher vocational colleges; flipped classroom model

#### 1. INTRODUCTION

In recent years, flipped classroom is gradually infiltrating into English classroom teaching in higher vocational colleges. This teaching mode, which relies on the network teaching platform and is taught by students themselves and then by teachers, is very popular, which can effectively ensure that students fully understand and use knowledge, and improve classroom teaching efficiency. In the context of the increasing popularity of smart phones, the development and evolution of the cloud class platform provides technical support for the flipped classroom teaching mode. For students, this can make full use of the valuable time in the classroom, redouble their active and independent concentration on project-based learning, and thus carry out deeper learning.

The implementation of "flipped classroom" can enable students to plan their learning content and grasp the learning rhythm independently. Although it is completely inverted from the traditional learning method, it can better meet the needs of students and promote their personalized learning. It can be said that in order to make students' learning more active and flexible, and have a higher degree of participation, the flipped classroom model, like inquiry learning, blended learning and other teaching methods and tools, is a part of the education reform movement, and has the same educational practical significance. In the flipped classroom teaching mode, one of the problems faced is that some students lack learning autonomy and the initiative to complete tasks. Because in this mode, students can use all mobile terminals to complete the learning of teaching videos.

Students' autonomous learning of relevant knowledge points before class is one of the preconditions for the realization of flipped classroom model. However, sometimes, micro-class is the basis and an important part of flipped classroom, which directly determines the effect of knowledge transfer before class, affects the design of in-class teaching activities, and thus affects the final teaching effect; Flipped classroom provides a carrier and a test platform for the application of micro-class. The promotion and application of flipped classroom will certainly promote the rapid development of micro-class. The students will feed back the problems encountered in the pre-class, in-class and post-class learning process to the teachers. By sorting out and evaluating the information fed back by the students, the teachers will find the deficiencies in the micro-class production and correct them in time, promote the continuous improvement and improvement of the micro-class, and thus accelerate the reform of information-based teaching.

#### 2. THE PROPOSED METHODOLOGY

#### 2.1 The Construction and Implementation of Flipped Classroom Teaching Mode in Higher Vocational Education Based on Cloud Class Platform

Before class, teachers and students should understand the downloading and installation of cloud class platform, and after completing the mobile phone installation and user registration, teachers should create class classes, and send invitation codes to students to drive students to participate in class discussions. Upload teaching resources such as course notice, pictures and video audio, homework cases, courseware PPT, etc. in the resource library, click the "notice" function window, tell students to complete learning tasks according to the resources in the library before class, encourage students to learn independently before class, and fully stimulate students' learning enthusiasm. In addition to the preparation of hardware equipment, teachers need to analyze the teaching objectives and clarify the learning effects and objectives that students need to achieve; Then prepare learning resources according to the objectives, which can be self-made or collected micro-video, animation, PPT courseware, electronic documents and other materials, which can be made by teachers themselves, or can be collected or reprocessed.

(1) Various brainstorming and interactive discussions are conducted in the form of on-site teaching, online and offline interaction, and information technology teaching. The assessment method is formative and skill application ability test. The main purpose of flipped classroom is to make students change from passive learning to active learning, truly become the main body of the classroom, and then improve students' autonomous learning ability and learning efficiency.

(2) According to the teaching effect of pre-class guidance and taking into account the students' English level and learning autonomy, teachers should actively change the previous fixed turned-class model, and pay more attention to some students with poor English foundation, slow learning progress and low autonomy during formal teaching, so as to help all students make progress together.

## **2.2** Public English flipped classroom teaching mode based on cloud class platform

Specifically, teachers can use the diversity and interesting functions of the cloud class platform to carry out teaching activities according to the data results of student preview and test questions on the cloud class client, fully mobilize students' learning enthusiasm, and improve teaching. In China, public English classes in higher vocational colleges still use traditional teaching models and methods, and students lack a good language learning environment. As we all know, the traditional teaching mode is that teachers teach in class, assign homework, and students finish after class. This model is easy to make students have a strong dependence on teachers and the classroom, lack of autonomy and enthusiasm in learning, and the learning effect is poor.

Because of the test and analysis function of cloud class, teachers can clearly understand students' learning difficulties, so that the targeted adjustment of teaching content and design of relevant problems can allow students to discuss in class, thus helping students to further internalize knowledge.

After learning some unit knowledge points, design relevant practical project tasks. Students complete the practical project tasks of each group through independent exploration and cooperative learning, and complete them through reports, speeches, competitions, etc. The micro-class is the basis and an important part of the flipped classroom, which directly determines the effect of knowledge transfer before the classroom, affects the design of teaching activities in the classroom provides a carrier and a test platform for the application of micro-class. The promotion and application of flipped classroom will certainly promote the rapid development of micro-class.

#### 3. CONCLUSION

With the rapid development of information technology, "Internet plus education" has been widely used in the classroom of higher vocational colleges. The reform of the traditional classroom teaching structure has become a foregone conclusion. New teaching models such as micro class, MOOC, rain class, cloud class will occupy an important position in the future classroom teaching, promote the comprehensive innovation of higher vocational education, and lay the foundation for cultivating high-quality skilled talents. The emergence of flipped classroom based on micro-class is in line with the development and reform of education, and it will have broad application prospects. We should build and improve the flipped classroom teaching mode according to our own public English curriculum standards, continuously improve the teaching quality and promote the informatization of English education.

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### An Analysis of the Latest Progress in Maritime English Teaching

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**Abstract**: By analyzing the current situation and existing problems in the teaching of maritime English, this paper discusses the problems to be solved in the teaching of maritime English, and puts forward feasible methods and measures for the teaching of maritime English in Chinese colleges and universities. It shows that the traditional English teaching mode can no longer meet the needs of modern navigation, and puts forward feasible methods and measures on how to improve the professional English teaching of navigation in Chinese colleges and universities, with a view to cultivating high-quality senior sailors who meet the needs of modern navigation.

Keywords: Latest Progress; Maritime English Teaching

#### **1. INTRODUCTION**

The promulgation and implementation of the 97 Rules of the China Maritime Administration of the International Maritime Organization puts forward higher requirements for the English, especially the English listening and speaking ability of the crew. The ability of seamen to use professional English becomes a part of their profession as well as technology and skills. Even if a senior crew member is proficient in driving skills, if there is a barrier to English language, he is still considered unqualified and incompetent. English is an important part of seafarers' sailing life and is a necessary skill for senior sailors, which is a recognized fact in the navigation industry.

Modern navigation is developing rapidly. Many new ships are launched every year in the world, and many new laws and regulations come into force every year. However, at present, the content of English textbooks selected by most navigation colleges and universities is not closely related to ocean transportation, and the content is out of date. In view of the importance of English teaching for navigation majors, competent authorities, education and training departments and teaching staff at home and abroad have actively carried out research work in this field.

In order to promote the global teaching of professional English for navigation, according to the current teaching situation and needs of domestic colleges and universities, eliminate the influence of "exam-oriented teaching" which is eager for quick success and instant benefit. While doing a good job in the teaching and assessment of English at the national level 4 or other levels, we should fully consider the needs of professional English teaching for navigation students, actively take measures and methods, and scientifically combine the contents and objectives of these two different types of teaching. That is, while successfully completing the teaching and assessment of CET-4, we should ensure that these students' learning and ability of professional English meet the needs of future work.

As far as the teaching of English for navigation majors is concerned, the teachers who have graduated from English majors and those who have graduated from navigation majors have their own strengths and weaknesses in teaching: the professional knowledge of English, so they have obvious advantages in teaching and training students' basic English abilities such as listening, speaking, reading and writing. However, they are also suffering from the lack of professional knowledge in the teaching of professional English for navigation, which makes it difficult to deepen the teaching of professional English. Maritime English is a highly practical course, and students' ability to use English should be comprehensively improved in accordance with the three aspects of "listening, speaking and writing". The teaching of many maritime colleges and universities in China includes both degree education and vocational education.

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Figure. 1 Digital system of maritime badges

#### 2. THE PROPOSED METHODOLOGY 2.1 The Current Situation and Problems of Maritime English Teaching

When arranging and implementing teaching plans, school leaders and teachers pay more attention to the teaching of degree courses. This phenomenon often causes degree courses to compress the teaching hours of professional courses, thus affecting the English teaching of navigation majors. To change the awkward situation of college English teaching for navigation majors following the "CET-4" baton as soon as possible, from comprehensively improving students' English language application ability, especially English listening and speaking ability, to actively encourage teachers to improve and update teaching methods and enhance students' learning interest. Teachers should be encouraged to use group discussion, role performance, case analysis, simulation exercises and other teaching methods in class

Every language has its own characteristics and scope of application. After years of development, marine English has formed a complete system, producing many professional terms and abbreviations with specific meanings applicable to marine English. Therefore, targeted teaching should be taken according to the characteristics of marine English. It is worth noting that many students majoring in navigation have failed to pass CET-4 after the end of the second academic year, and still have to focus on CET-4 in the third or even fourth academic year when they begin to learn professional English. Many students who have passed CET-4 will continue to prepare for CET-6, which inevitably takes up the teaching time of professional English.

#### 2.2 Some Suggestions on Improving Maritime English Teaching

The English teachers of navigation majors should be composed of an appropriate proportion of English teachers and navigation teachers, especially those who have returned from studying abroad. Teachers engaged in the teaching of basic English and professional English for students majoring in navigation should maintain regular exchanges and communication with each other. Adhere to the studentcentered Yuanbei in teaching, provide more opportunities for students to participate in interactive learning, and help them improve their ability of English memory and expression in repeated use and practice. Teachers who teach maritime English need not only solid English professional knowledge, but also rich maritime knowledge.

Graduated teachers of English major have certain advantages in teaching and training of basic English application abilities such as listening, speaking, reading and writing, but they lack professional knowledge of navigation, which makes it difficult to deepen the teaching of professional English; Graduated teachers of navigation majors have certain maritime experience, are familiar with the professional knowledge of navigation, and have great advantages in helping students read professional English materials, documents and introduce relevant professional English knowledge. The main reason for the problems of the connection between basic English and professional English teaching in the above maritime professional English teaching is the lack of coordination mechanism and conditions.

#### **3. CONCLUSION**

To a large extent, the ability of using English determines the competence of the crew, and improving the teaching effect of maritime English is an important way to improve the English ability of the crew. Maritime colleges and universities should flexibly and appropriately use scientific and effective teaching methods and means according to their own teaching practice, and reform the current teaching mode to effectively improve the quality of maritime English teaching. With the in-depth development of the educational reform of navigation specialty in domestic colleges and universities, the teaching of navigation specialty English will certainly have greater improvement and development. Due to the limitation of conditions and time, this paper has made a summary of the above situation after participating in the survey of the teaching of maritime English in many colleges and universities, and some suggestions for the current problems in the teaching of maritime English in colleges and universities must have many deficiencies.

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### Intelligentized Integration of Maritime English Teaching

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**Abstract**: At present, maritime English teaching is still limited to the traditional single teaching methods and teaching tools, which cannot meet the requirements of the shipping industry for talent training. The combination of questioning method and blackboard, cooperative teaching method and card, teaching method and multimedia, situational teaching method and physical object, and project teaching method and simulator equipment can enrich the classroom content of marine English and improve the teaching quality of marine English. Based on the advantages of mobile learning and smart classroom in the field of English learning, this paper discusses the integration path of mobile technology and English smart classroom, explains its preconditions, teaching design and implementation methods, and provides ideas for the feasibility and normalization of classroom teaching intelligent reform.

Keywords: Intelligentized Integration; Maritime English Teaching

#### **1. INTRODUCTION**

With the development of the world shipping industry, there is a growing demand for shipping talents with good English skills. Whether to cultivate qualified sailors who meet the requirements of the international shipping industry, have a good English level and good intercultural communication ability is a problem faced by all shipping colleges. Accordingly, the teaching of maritime English is facing great challenges. However, today's marine English education cannot meet such requirements. The current situation of marine English is shown as follows. Language learning is characterized by the indivisibility of knowledge points and its own system, which needs and can be completed in sporadic time.

Mobile technology breaks through the time and space limit, and learners can use the "fragmented" time for informal learning. This "small step" learning is an effective extension of the classroom, making teaching and learning activities more flexible. Learning is no longer limited to teachers, classrooms and books. The development of language learning activities can be embedded in the informal learning environment outside the classroom. "Internet plus Teaching Mode". Under the background of "Internet plus", the traditional teaching model will be deconstructed and combined again to develop a new interactive model of teaching and learning.

This new teaching mode will meet the needs of learners according to the development trend of network assisted teaching and internet education, and provide learners with multiple learning modes such as experiential learning, collaborative learning and mixed learning. The characteristics of differentiated teaching are mainly as follows. First, respect and understand the differences of students. Under the mode of higher education in China, large-class teaching is the norm, and the learning basis of students in each class is uneven. The basic feature of differentiated teaching is that teachers are required to recognize the differences between students, put an end to the single rigid teaching method, and prevent the simple "one-size-fits-all" teaching mode.

English name	Type of data
Score_ID	Numeric (9, 0)
Tea_ ID	Varchar (10)
LD	Smallint (2)
WD1	Smallint (2)
WD3	Smallint (2)
	Score_ ID Tea_ ID LD WD1

Figure. 1 Design of Oral English Teaching Based on Embedded Microprocessor

## 2. THE PROPOSED METHODOLOGY2.1 Current situation of maritime English education

"Questioning method, also known as conversation method, is a method for teachers to put forward new questions based on students' existing knowledge and experience, guide students to think, and let students obtain knowledge and put forward conclusions through dialogue between teachers and students. Questioning is an effective means of teaching, which promotes students to participate in classroom activities, and urges them to think and understand.

Smart classroom is essentially an educational classroom that fully stimulates wisdom, in form: Classroom with intelligent application of information technology. Smart classroom maximizes the effectiveness of "educating people" in English teaching. It uses modern information technology to transform the traditional classroom of "knowledge teaching" into a learning environment of "wisdom generation", guide learners to "turn knowledge into wisdom", and pay attention to the development of their thinking and innovation abilities

"Internet plus+Teaching Evaluation". To a large extent, "Internet plus" can overcome the problem that traditional education evaluation is difficult to collect evaluation basis and evaluation information in a single and fragmented way. It can not only collect education data in the whole process and in all directions, but also collect unstructured data such as emotional factors, psychological tendencies, and practical abilities other than exam scores, so as to support comprehensive and systematic evaluation and expand the connotation and function of education evaluation. However, students who do not receive "attention and nutrition" in the classroom will give up slowly, which will in turn affect the state and enthusiasm of teachers in class, forming a vicious circle. Therefore, compared with the general subjects, it is of great significance to use the differentiated teaching method in the class of marine English reading class to make every student have the corresponding harvest and improvement as far as possible. Questions can be directed at the whole class or individuals. Some students may be very active, so teachers should try to involve every student in the question and answer.

# 2.2 The advantages of combining intelligent classroom with maritime English teaching

In addition, when students answer correctly, they should be praised; If the answer is not completely correct, you should praise the correct part of the answer first, and then point out the wrong place. The key is that teachers should understand the reasons for students' mistakes, and do not discourage students' enthusiasm. Whether mobile language learning can be deeply integrated with English smart classroom and achieve complementary advantages depends on exquisite teaching design.

If we only use mobile learning technology to push learning resources, assign assignments and release tests in one direction, but lack the organization, guidance and management of teachers, and neglect the learning process and ability development of learners, we will not meet the requirements of knowledge internalization, problem solving and thinking expansion, which deviates from the original intention of English smart classroom. The traditional teaching mode of "textbook+classroom" will be broken by using the online teaching platform and Youmuke Mobile APP, and technologies such as the Internet and big data will be fully utilized to create a hybrid teaching mode that combines online learning and offline learning to meet the needs of modern education development.

For the students in the basic group, they are required to master the important vocabulary in the textbook and understand some simple sentences; For the students in the reinforcement group, they are required to master the vocabulary and phrases in the text, read the difficult sentences in the text, and learn to divide the sentence structure; For the students in the development group, on the basis of mastering the content of the text, increase the amount of extracurricular reading and further enhance the mastery and understanding of relevant new words, difficult words and sentence patterns. Relying solely on teachers' language to transfer knowledge is a little monotonous and not visual. Especially, maritime English teaching involves a lot of maritime professional knowledge. At this time, the situation can be greatly improved if multimedia is used.

# 3. CONCLUSION

In a word, the cultivation of students' mathematical modeling ability in higher mathematics can effectively stimulate students' interest in learning, improve their ability to analyze and solve problems, and improve their ability to use mathematical knowledge. Applying the modeling idea to the teaching of higher mathematics is conducive to students' indepth understanding of the knowledge of advanced mathematics, reducing the difficulty of learning advanced mathematics, and improving students' ability to apply and explore knowledge. At this stage, there are still some problems in the introduction of modeling ideas in advanced mathematics teaching. Therefore, advanced mathematics teachers should conduct in-depth research and exploration, strengthen teacher-student interaction, and lay a good foundation for improving the quality of advanced mathematics teaching.

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# A Study on the Reform of Maritime English Teaching in Higher Vocational Colleges from the Perspective of Linguistics

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**Abstract**: The important goal of college English teaching is to enrich students' language knowledge and cultural knowledge of English-speaking countries, and to carry out multi-angle intercultural communication activities such as listening, speaking, reading, writing and translation. College English teaching has interdisciplinary characteristics, which cannot be without the support of multiple disciplines. More importantly, college English is an integral part of the language system. In the actual teaching process, it is necessary to rely on linguistic theory, explore and build a professional curriculum teaching model based on the mixed teaching concept, highlight the practicality and pertinence of maritime English teaching in higher vocational colleges, and closely combine English teaching with professional learning, Pay attention to cultivating learners' ability to make English learning more practical.

Keywords: Reform; Maritime English Teaching; Higher Vocational Colleges; Linguistics

### **1. INTRODUCTION**

Today's society also puts forward high requirements for college students' English quality, which indicates that China's demand for comprehensive and applied English talents is gradually increasing. How to find more scientific and efficient educational methods and scientific ways to improve the English communicative ability and language application quality of contemporary college students has become an urgent problem for experts and teachers. The academic community basically agrees that the theoretical basis of multimodality is systemic functional linguistics. According to systemic functional grammar, language system has three metafunctions: conceptual function, interpersonal function and textual function. Among them, conceptual function includes empirical function and logical function. The experiential function is the expression of language for various experiences

The logical function is the expression of the logical relationship between two or more meaning units by language. For example, Beijing University of Science and Technology has reconstructed "foreign language classroom teaching" on the basis of deconstruction of "traditional foreign language classroom teaching" based on the university's college English classroom teaching practice by integrating the emerging teaching resource mode "online open course" and the emerging teaching mode "flipped classroom" in the information era. They deconstructed the traditional teacherbased classroom into a flipped classroom teaching mode of "SPOC+small classroom". When applying this teaching method to maritime English teaching, we should pay attention to the following points: First of all, in the process of questioning, teachers need to carefully consider various problems, so as to achieve the combination of difficult and easy, first easy and then difficult, and consider the use of words.

For example, questions that require only yes and no can be put at the beginning of the class, because almost everyone knows the answer and can answer with confidence. Mobile technology can create a real and natural language communication scene, enabling language learners to gain sufficient motivation to practice this language and gain direct experience through actual experience and feelings in the simulation scene. This kind of cognitive interaction can not only improve learners' language communication ability, but also promote language communication strategies.

# 2. THE PROPOSED METHODOLOGY

# 2.1 Analysis of the Ecological Environment of Maritime English Teaching in Higher Vocational Colleges

The meso-environment of college English teaching focuses on the English subject and English curriculum, specifically including teaching policy, value orientation, connotation, etc. The goal of college English teaching emphasizes the expansion of students' knowledge and the development of students' language application ability, that is, taking language communication as the fundamental purpose, improving students' language flexibility and application ability, so that students can smoothly communicate at the oral and written level in daily life and future career development. This study adopts the method of comparative teaching.

In the teaching of English reading in the experimental group, the preparation before class, the teaching process and the consolidation after class all reflect multimodality, with students as the main body; The control group still uses the traditional teaching method, that is, the classroom teaching is mainly based on the teacher's explanation.

Since September 2011, this study has carried out a one-year teaching practice, measuring students' English reading ability before and after the experiment, and making a comparative analysis. "Internet plus Education" has changed the traditional "teacher centered" teaching form, turned to "learner centered", and provided all-round, personalized and continuous learning services for learners. Teachers can make corresponding adjustments to the teaching plan according to the learning

situation of each learner, design and discuss problems more pertinently, and deal with problems in teaching in a timely manner.

Open the voice room and English autonomous learning room, encourage students to learn independently after class, and upload the learning content to the teaching platform and mobile phone client at any time, so that teachers can grasp the learning dynamics of students at any time. However, due to the limited time in the classroom, it is impossible for the teacher to list the main points to be discussed on the blackboard and let the students record them, which is not conducive to the discussion.

# **2.2** The Innovation of the Mixed Teaching Model of Maritime English

In this case, if you use cards or some notes to list the contents to be discussed, you can promote students' participation and save time. Whether mobile language learning can be deeply integrated with English smart classroom and achieve complementary advantages depends on exquisite teaching design.

If we only use mobile learning technology to push learning resources, assign assignments and release tests in one direction, but lack the organization, guidance and management of teachers, and neglect the learning process and ability development of learners, we will not meet the requirements of knowledge internalization, problem solving and thinking expansion, which deviates from the original intention of English smart classroom. The important starting point of linguistics is to reflect the sociality of language. Of course, among the many attributes, the most important is the social and cultural attributes. It is because of these two attributes that we have a more appropriate language.

In the process of English teaching, teachers should pay special attention to the semantics of students' expressions and guide students to make corresponding expressions in corresponding situations.

In addition, college English teachers should lead students to carry out scientific research on the culture contained in the language during the language guidance to improve students' understanding of the language. With the help of the complex process of transnational cultural communication, after one academic year of study, the English reading ability of the two groups of students has improved, but the improvement of the experimental group is more obvious (28.286). Although the performance of the control group has improved (24.237), the progress is very limited.

# 3. CONCLUSION

Linguistics is an abstract and complex discipline, and the exploration of language is very comprehensive and profound. In the process of language learning and development, we should break through the limitations and expand our thinking, and apply the cultural history and other contents related to language to language learning and teaching. Only in this way can we maximize the value of language. Internet-based language teaching is not an upgrade of "technical means", but a systematic transformation of the broad "knowledge industry" business model and restructuring of organizational processes. The online and offline mixed information teaching mode makes the navigation English teaching from knowledge transfer to cognitive construction, which not only enhances the cognitive input in the learning process, but also makes the navigation English learning no longer a shallow level of behavior and feedback.

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# Exploration on the Informatization of Ideological and Political Course Teaching in Modern Universities in the Multimedia Era

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**Abstract**: This papers' focus is exploration on the informatization of ideological and political course teaching in modern universities in the multimedia era. In modern society, science and technology provide convenience and technical assistance for the development of ideological and political education. It can be said that whoever holds the initiative in cyberspace will be the leader of the future world order, and hence, the better applications of the information era into real ideological and political course teaching. The discussions of the paper are collected from the different aspects.

Keywords: Multimedia Era; Exploration; Informatization; Ideological and Political Course; Course Teaching; Modern Universities

#### **1. INTRODUCTION**

The traditional teaching mode of ideological and political theory courses in the colleges and universities emphasizes the central position of teachers in teaching, that is, teachers are the imparters of textbook knowledge and the organizers of classroom teaching. The application of smart classrooms in the teaching of the ideological and political courses not only provides rich teaching resources for ideological and political theory courses in colleges and universities, but also provides opportunities for students to participate in classroom teaching because of its openness. Under the recent great changes, the information technology revolution is an important driving force and a key variable in the competition between great powers. With the immersion of geopolitics, cyberspace has become the field of complex games.

It can be said that whoever holds the initiative in cyberspace will be the leader of the future world order, and hence, the better applications of the information era into real ideological and political course teaching. We shpuld better improve the educational performance from some basic aspects.

(1) With the development of information technology, people's understanding of information literacy has evolved from a single technology to an important part of the general human comprehensive ability and also quality. Therefore, the proper integration will be essential.

(2) Guide students to use the smart classroom technology to improve their understanding of textbook knowledge. Only in this way can students' recognition of the teaching content of ideological and also political theory courses be improved, and students' cognition of ideological and political theory courses in colleges and universities can be changed in the past, so as to build an equal teaching relationship.

(3) Smart classroom technology can further promote the deep optimization of the teaching mode of ideological and political theory courses in colleges and universities, so that students' principal position in classroom teaching is more prominent, the classroom interaction is more effective, and the teaching mode is more personalized.

Considering the information era, the sample classroom is presented in the figure 1.

Kembangkan Wirausaha di Era Perang Multimedia Kreatif



Figure. 1 The Sample of Information Era (http://berita.upi.edu/kembangkan-wirausaha-di-era-perangmultimedia-kreatif/)

#### 2. THE PROPOSED METHODOLOGY

# 2.1 The Review of the spirit of the 20th National Congress of the Communist Party of China under the background of informationization

General Secretary Xi Jinping pointed out in the report of the 20th National Congress of the Communist Party of China that it is necessary to fully, accurately and also comprehensively implement the new development concept, adhere to the direction of socialist market economic reform, and adhere to high-level opening up. With the global outbreak of the epidemic, the significance of cyberspace governance to China has become increasingly prominent. To a certain extent, she has directly related to the stability of the Communist Party of China, the modernization of China, and the freedom and comprehensive development of the modern Chinese people. The overall situation presents an opportunity coexist with the challenges.

As the president Xi said, in recent years, China's scientific and technological innovation capability and industrial technology level have continued to improve, and it has increasingly become a strong competitor in the industries of developed countries. In addition, the international technological and economic cooperation environment has undergone many changes in the unfavorable direction. It is difficult to continue to acquire a large number of advanced technologies through the introduction increase. In particular, the cutting-edge technology market is often an oligopolistic or even monopolistic technology market, and the holders have strong control. It is different from the previous situation that the technology that China needs to introduce is not at the forefront, and there is a "competitive market" for technology supply, so that it can be imported in large quantities. It has been very different. Therefore, in the future technological development, especially cutting-edge and also cutting-edge technological development, more emphasis should be placed on independent innovation and self-reliance in science and technology. The government should increase investment in basic research, persevere in supporting original research, and provide support for technological innovation. "Concentrate on tackling key problems on technical issues. Therefore, the further proper integration with the latest technology will be also essential. General Secretary Xi Jinping pointed out in the report of the 20th National Congress of the Communist Party of China that the opening up of the rules, the regulations, management, and standards should be steadily expanded. Promote the optimization and upgrading of trade in goods, innovate the development mechanism of trade in the services, develop digital trade, and accelerate the construction of a strong trade country; reasonably reduce the negative list of foreign investment access, protect the rights and interests of foreign investment in accordance with the law, and create a first-class business environment that is market-oriented, ruled by law, and internationalized to promote the high-quality development of the joint construction of the "Belt and Road", and this will be the basis for our study.

# **2.2** The Informatization of Ideological and Political Course Teaching in Modern Universities

We should improve the system and mechanism of general information-based teaching of the modern ideological and political courses. Schools must not only establish the concept of then actively promoting information-based construction, increase publicity, strengthen the construction of informationbased campuses and digital campuses, but also improve the top-level structure for the information-based teaching of ideological and political theory courses, clear organizational planning and functional division. Ideological and political education in colleges and universities should not stay at the theoretical level, but should give full play to the subjective initiative of the students, build a red ideological education platform, and let students experience the spirit of the 20th National Congress of the Communist Party of China.

The teaching efficiency of ideological and political theory courses is reflected in changing the traditional indoctrination teaching method, innovating the teaching form so that students become the lecturers and leaders of the classroom, and creating a modern flipped classroom teaching of "studentcentered, teacher-assisted". Through the innovative teaching models, reform education methods to maximize the benefits of improving the teaching quality of ideological and political theory courses. University period is an important stage in the formation of the students' values, and ideological and political education plays an important role in this period. The current main ways of ideological and political education are divided into classroom theoretical study and extracurricular specific practice. Hence, we should combine the different stages to form the comprehensive study pattern.

### **3. CONCLUSION**

This papers' focus is exploration on the informatization of the ideological and political course teaching in the modern universities in the multimedia era. With the advent of the 5G and multimedia era, the introduction of mass media in the ideological and political education courses and classrooms of universities is the basic condition for the development of the ideological and political education in the new era. This paper provides the novel suggestions for the construction of the efficient learning scenarios. In the future, discussions on the performance will be specialized.

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# Analysis of the Promotion Value of New Media on Ideological and Political Education in Colleges: A Sample Study

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Abstract: Analysis of the promotion value of new media on ideological and political education in colleges: a sample study is provided in this paper. New media teaching has quietly become a hot research field, and ideological and political education in colleges and universities is no exception. From the perspective of new media, innovate and optimize the teaching platform of ideological and political courses, tap the ideological and political elements in new media, and use new media forms to promote ideological leadership, so that thinking can break the ice and lead ideological and political education to break through. This paper gives the new suggestions to promote and improve the traditional methods.

Keywords: Ideological and political education; promotion value; new media; general analysis; education in colleges

### **1. INTRODUCTION**

New media is the very important vehicle for the information dissemination and discourse communication at the current stage. It is a new type of technology that can effectively bring people and and the distance between people and things. New media has changed the way of information dissemination in modern society. Its core openness, massiveness, interactivity, virtuality and some other characteristics provide favorable conditions for the development of ideological and political courses in colleges and universities in the new era.

The application and popularization of new media technology has greatly reduced the cost of information acquisition for college students, making college students more susceptible to the influence of the foreign ideas and cultures. When college students lack self-control and a firm stand, they are prone to misperceptions induced by foreign ideas as well as forming the wrong values. For ideological and political education in colleges and universities, new media technology is a "doubleedged sword". Although it has aggravated the situation of the ideological and political education in colleges and universities. In the following sections, the details of the new media and the guiding ideas to the ideological and political education in the colleges will be also integrated.

### 2. THE NOVEL IDEAS

#### 2.1 The Promotion Value of New Media

Compared with previous information dissemination methods, the new media information dissemination, the former breaks through the limitations of space and time, and shows obvious openness. At the same time, the dissemination of new media information does not set a fixed dissemination target, anyone can obtain information through general relevant means. The popularization of new media technology provides information support for the ideological and political and scientific research work of colleges and universities. With the support of new media technology, the cost of the information acquisition for educators in modern colleges and universities has also been significantly reduced. They can collect massive amounts of information from network media anytime, anywhere, and retrieve the information they need in the huge information database to then provide information support for education and scientific research, promote the ideological and political education and improve the efficiency of scientific research.

Language is the medium of thought dissemination, making good use of teaching language can have a multiplier effect on the teaching of ideological and political courses. With the deep integration of new media and people's life and study, new media applications are rapidly infiltrating among college students who are the Internet generation. New media technology is the carrier of ideological and political education, which can assist and promote the improvement of the effect of ideological and political education.

The use of new media technology is not the purpose, but a teaching method to improve the effectiveness of teaching. At present, new media has become an accompanying tool for college students' study and daily life. Taking the opportunity of ideological and political education in the colleges and universities, new media will be used to build a new learning platform, that empower ideological and political education innovation, and make ideological and political theoretical knowledge "new and innovative". Go deep, take heart", need to find a good point of effort, increase attention and screening power. In the face of many changes in the form and content of students' learning in the new media era, the media literacy of teachers of ideological and political courses in colleges and universities has then become a key part of their professional literacy. Media literacy refers to the integration of media knowledge, media skills, and media attitudes in response to the development of the new media era. Hence, the usage of the media technology will be essentail for the education.

# **2.2** The ideological and political education Suggestions

The innovation of higher vocational ideological and political education based on new media must always adhere to the principle of the most appropriate use of the technical means. Educators should scientifically design the content and mode of ideological and political teaching according to the current severe employment situation and the pressure of students' learning and employment, so as to enhance the reality of the education. For the better ducation, we should focus the listed aspects.

(1) In colleges and universities, the ideological and political education teachers and counselors are often responsible for the task of ideological and political education. In the current era of the new media, educational personnel in colleges and universities should innovate the content of ideological and political education in colleges and universities, and also help students establish the correct three views.

(2) Use ideological and political education as a medium to build a bridge between classroom and society. The society should be regarded as the second classroom of ideological and political education, relying on the complex and changeable real environment to enhance students' willpower and ability to resist pressure.

(3) The function of education needs to be timely expanded according to the development trend of the times to ensure the function and advantages of the education should be truly nurturing and guide students to become ideal, goal-oriented and The new generation of talents with high moral character and cultural confidence.

(4) The online and the offline integrated teaching mode is welcomed by more and more teachers and students. Online teaching breaks through the limitations of time and space, and has advantages that offline teaching does not have, such as more convenient, richer information, and students can choose independently, etc.

Through new media technology, it has greatly changed the situation of slow speed, long cycle, and low efficiency of traditional ideological and political work. With the help of the immediacy of new media information dissemination, it can not only spread the party and the country's line guidelines and policies comprehensively and quickly and correct ideas and theories can also improve the quality of education in an all-round way. Furthermore, the construction of the new media communication platform makes it unnecessary for students to receive education in the specified place within the specified time in the traditional way, and the multilateral interactive remote information exchange improves the participation of the students.

# 3. CONCLUSION

Analysis of the promotion value of new media on ideological and political education in colleges: a sample study is provided in this paper. The rapid development of new media coupled with the advantages of the convenience, speed, and massive information make it favored by more and more young college students. The extremely high utilization rate of new media among college students provides a rare opportunity for moral education in the colleges and universities. The multilateral interactive remote information exchange improves the participation of the students. In the future, we will consider the applications.

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# Research on Online Teaching of Art Management Major Based on Deep Learning Under the Background of Internet

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Abstract:Research on online teaching of art management major based on deep learning under the background of Internet is conducted in this manuscript. In the process of in-depth teaching, classroom teaching activities are an organic whole, and "teaching" and "learning" are not separated. This requires a change in the professional role of teachers, and the role of knowledge instiller and also teaching task implementer must be abandoned. Art management is an emerging discipline that intersects and organically integrates a variety of modern cultural disciplines and also modern management disciplines. Hence, this paper considers the deep learning ideas to create the efficient ideas of the educational reform.

Keywords: Background of Internet; online teaching; art management major; deep learning

### 1. INTRODUCTION

In the cultivation of art management professionals, the degree of understanding of art must occupy a high proportion. Art management students need to have certain art knowledge and performance skills before entering the school, because if these basic qualities cannot be achieved, the perception of art will be greatly reduced. Although many colleges and universities and professional art colleges in our country have opened art management majors, there are many problems in theoretical research, curriculum setting and also teaching practice in each school. Based on the review, the listed aspects should be then considered.

(1) Art management professionals should have high ideological quality, good psychological quality and excellent quality and morality. First of all, art management professionals must have a clear understanding of the development laws of art culture.

(2) Art management majors should cultivate the professionals who can integrate art and management, humanities and also history, law and economics. The major of art management should cultivate professionals who can then integrate various disciplines, such as art and management, humanities and also history, law and economy. Therefore, the curriculum of the art management major should not only pay attention to the setting of compulsory public courses, but also reflect the professional concept of the professional curriculum.

(3) From an in-depth analysis, the training task should be to give full play to the functions of universities, demonstrate the advantages of talent training, undertake and implement social missions, break the previous indoctrination, conservative and closed teaching mode, face the whole society and also guide according to actual needs Students spontaneously accumulate skills, thus serving future career planning and demonstrating strong professionalism.

Art management is an emerging discipline that intersects and organically integrates a variety of modern cultural disciplines and also modern management disciplines. The rise of this discipline has adapted to the needs of the development of the modern society. It came into being on the basis of the rapid development of culture, art, management and other related disciplines. In the figure 1, the online teaching example is presented. In the next sections, details will be studied.



Figure. 1 The Online Teaching Example (URL: https://www.forbes.com/sites/enriquedans/2020/11/30/whether-welike-it-or-not-online-teaching-is-the-future-so-lets-start-learning-howto-do-itproperly/)

# 2. THE PROPOSED METHODOLOGY

# 2.1 The Art Management Major

Traditional aesthetics and also literary theory have always regarded creativity as the unique quality of an artist or artistic creation, but this concept has changed today. In the cultivation of art management professionals in colleges and universities, we should grasp the appropriate path to implement relevant work, start with the construction of project-based operation mode and the combination of theory and practice, and output high-quality talents for the country and society.

One of the important purposes of art management is to provide artists with good creative projects, find a good sales channel for art works, and make the spiritual and material costs paid by art creation subjects get timely and effective returns. Obviously, the mission of art marketing That's it. Art marketing can mobilize people, money, and materials inside and outside the art industry to the greatest extent, and carry out effective planning, organization, and coordination.

Art marketing staff maximize the profits of their works through marketing knowledge, public relations knowledge, and legal knowledge that artists do not have. We should consider the following perspectives.

(1) Judging from the professional curriculum design of art management major, art management needs to combine the management, art, cultural policy, cultural sociology and also cultural economics and other majors and also the courses. The collaborative innovation capabilities among some various professional disciplines pose a high challenge.

(2) What is the difference between art management and cultural industry management? It is very important to distinguish the two correctly for the professional layout and curriculum setting of Chinese universities. Otherwise, the homogeneous teaching will lose the characteristics of the art management majors in art colleges, and graduates will be confused with cultural management students in ordinary comprehensive universities, and the characteristics and advantages of art majors will not be highlighted.

(3) Let students use their imaginations, express their views, have more ideas and more innovative arguments, and be able to fully participate in it. Through the two-way interaction and discussion between teachers and students, the ability of art management professionals to then deal with problems will be enhanced with the enthusiasm and applicability to choose the best solution.

Therefore, we believe that art management is completely different from business management in essence, and also different from cultural management in the general sense. It is a special management profession. The reason why it is special is then due to the characteristics of the above-mentioned art compared with other general disciplines, and it is definitely not the reason why the commentator is in an art school, let alone the subjective wish of the individual.

# 2.2 The Internet Deep Learning Integration

Deep learning mainly refers to the learning method opposite to the shallow education. Deep learning mainly refers to the process in which students constantly touch the essence of the things and master core theories through learning and cognition. Deep learning, as an objective description of the students' learning status, mainly refers to the systematic understanding and mastery of the knowledge learned by college students with the help of teachers by focusing on learning projects with certain difficulties through diversified learning methods and critical learning thinking.

The team of Chinese scholars He Ling and Li Jiahou put forward the concept of deep learning based on my country's national conditions and pointed out that deep learning is based on understanding, critically learning new ideas and new facts, and then integrating them into the existing cognitive structure to generate connections , and can transfer existing knowledge to new situations for decision-making and problem-solving learning. Students' deep learning in the true sense needs to be based on the in-depth guidance of teachers. Therefore, under the guidance of general pedagogy theory, in-depth teaching emphasizes the subjective initiative of students. Based on the concept of the knowledge and learning, teachers should guide students to learn systematically and comprehensively, and apromote learners to achieve a sense of satisfaction, efficacy, and meaning. Hence, we should follow the listed suggestions.

(1) The new curriculum reform attaches great importance to the cultivation of the core qualities such as learners' practical ability and innovative spirit. Based on this, in-depth teaching requires teachers to then change their teaching concepts. The traditional teaching of the knowledge imparting cannot be abandoned, but the development and comprehensiveness of teaching must also be emphasized.

(2) Deep learning needs to then have: critical understanding, information integration, active construction, general transfer application, problem solving and other characteristics. As far as information technology is then concerned, deep learning requires students' high cognition, high input and high output to understand the core concepts of the subject.

(3) The development of classroom teaching reform in colleges and universities is an effective adjustment to the original classroom teaching mode and structure of the colleges and universities in my country, and plays an important role in improving the quality of the classroom learning for college students and the quality of talent training in colleges and universities in my country.

# 3. CONCLUSIONS

Research on online teaching of art management major based on deep learning under the background of the Internet is conducted in this manuscript. To carry out the reform of classroom teaching in colleges and universities from the perspective of deep learning, it is necessary not only to understand the concept of deep learning and the situation of classroom teaching in colleges and universities, but also to clarify the adaptability of deep learning and classroom teaching reform in colleges and universities. This paper gives the novel suggestions for the improvement of the recent studies.

# 4. ACKNOWLEDGEMENT

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# A Car Target Detection Method based on YOLOv7-tiny

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**Abstract**: If the driver can discover the safety hazards during the driving and brake the vehicle in time, it will effectively reduce the occurrence of traffic accidents and reduce losses. In order to accurately and quickly detect the vehicle in front, this article proposes a car target detection method based on the YOLOv7-tiny algorithm. This method can use the machine vision to detect the vehicle in front. Provide security assistance. The experimental results show that the average accuracy rate of the methods proposed in this article on six common vehicle recognition reached 80.8%, and the model is more lighter.

Keywords: computer vision; deep learning; target detection; image identification

# **1.INTRODUCTION**

With the rapid development of economy, society and science and technology, gradually improvement of people's living standard, the total quantity of vehicles in our country has increased rapidly. In comparison, the highway mileage in our country has increased slowly in recent years, which has led to the traffic contradiction between supply and demand becoming increasingly serious, and the aggravating contradiction between supply and demand leads to a large number of traffic accidents. According to the China Statistical Yearbook, a total of 244,674 traffic accidents occurred nationwide in 2020, resulting in 61,703 deaths, 250,723 injuries and direct property losses of 131,361 million yuan.

Aiming at the serious traffic safety problem, people hope to solve it effectively through the intelligent automobile. If the driver can find the hidden trouble in advance and timely brake the vehicle, it will effectively reduce the occurrence of traffic accidents and reduce losses. Therefore, it has become a research hotspot of intelligent transportation to enhance the perception of the external environment of vehicles through artificial intelligence technologies such as machine vision. Target detection technology can quickly and accurately detect the vehicle in front and provide feedback to the detection frame, which is of great significance to alleviate traffic safety problems.

In 2015, the YOLOv1 algorithm proposed by J Redmon et al. <sup>[1]</sup> used neural networks to segment the images to be detected and classify them in each region, reducing the average detection time and improving the detection accuracy at the same time. However, the grid design of the YOLOv1 algorithm also resulted in low detection effect for small targets and multi-targets. To address these shortcomings, researchers improved the YOLOv1 algorithm and successively proposed v2-v5[2-4] versions. This series of improvement overcomes many deficiencies of YOLO algorithm and pushes target detection to a new height. The algorithm also begins to be widely used in various fields. ZHANG et al realized rapid detection of vehicles by improving the YOLOv3 algorithm. In addition to the YOLO series algorithm<sup>[5]</sup>, other single-level detection algorithm performance is also very good. In 2015, Liu et al. proposed the algorithm SSD(Single Shot MultiBox Detector)<sup>[6]</sup>, which

uses multiple feature layers. Different resolution feature layers greatly enhance the algorithm's ability to deal with small targets. Corner Net algorithm<sup>[7]</sup>, which predicts target coordinates according to corner points, is also a representative in single-level detection. This method attaches more importance to the information of target edges and greatly improves the detection accuracy. Fan et al. proposed an infrared vehicle target detection algorithm based on improved YOLOV5 to solve such problems as false detection, missed detection and insufficient detection ability of infrared vehicle images<sup>[8]</sup>. Based on the Yolov5 model, Zhan et al. proposed four methods to improve the detection accuracy of small objects<sup>[9]</sup>. Ye et al. proposed an AV end-to-end adaptive neural network control turning Angle prediction method based on YOLOV5<sup>[10]</sup>.

In this paper, aiming at the problems of low detection accuracy, slow detection speed, and lack of complete detection of various vehicles in the current vehicle detection model, the original data set was expanded and several common vehicles were added. A vehicle target detection method based on YOLOv7-tiny algorithm is proposed. This method can detect the vehicle in front by using machine vision, and provide safety assistance for vehicle driving through the intuitive feedback image. The model parameters are smaller than those of YOLOv5s, which can run perfectly on the on-board computing platform and has good detection effect on all kinds of vehicles.

# 2.METHOD

### 2.1Self-organizing datasets

The self-organizing data set used in this study mainly includes six categories of vehicle tags: Car, Bus, Van, Truck, Cyclist and Motorbike. The data comes from the vehicle tags and self-labeling pictures of the open source data sets KITTI<sup>[11]</sup>, VOC<sup>[12]</sup> and COCO<sup>[13]</sup>. The self-organizing data set consists of 33,089 images.

Firstly, four categories of Car, Van, Truck and Cyclist were extracted from KITTI data set as basic data sets. Secondly, the label screening code was used to screen out four categories of bus, motorbike, car and cyclist from VOC data set, and five categories of bicycle, car, motorbike, bus and truck from COCO data set. Modify the code with tag names to change the above data to the same category name as the KITTI dataset. labellmg annotation tool is used to annotate the unannotated images, and the generated annotation file contains the category name, label category and the coordinates of the boundary box of the target object. Annotated images and files in the self-annotated data set are shown in Figure 1.



Figure 1. Annotate images and annotate files

Finally, the images selected from the open source data set are added to the Kitti-based self-organizing data set as supplements. The vast majority of the images were labeled positive samples, while a small number of unlabeled images were negative samples. According to the principle of random divided into 8:2 ratio, respectively training set and test set. At this point, the data set construction of the whole study was completed. Figure 2 shows the picture in the data set.



Figure 2. Dataset picture

# 2.2 YOLOv7-tiny Algorithm

In There are many algorithms for target detection. YOLOv7 algorithm is a typical representative of one-stage target detection algorithm. It runs fast and can be used for real-time detection. As a lightweight model of YOLOv7, YOLOv7-tiny can be better arranged on the vehicle platform, and the detection effect is also excellent. YOLOv7-tiny is mainly composed of backbone and head. Different from previous YOLO versions, Yolov7-tiny proposes an ELAN efficient network architecture, and proposes an auxiliary head method to increase training costs and improve accuracy without affecting reasoning time. Algorithm flow figure 3 is shown.



Figure 3. Algorithm flowchart

# 3.EXPERIMENT

# 3.1 Model training

In this paper, the idea of transfer learning is adopted and the pre-training model of COCO data set is used as the feature extraction device. The training parameters are set as follows: the size of the input image is  $640 \times 640$ , the batch sent to the network is 32 each time, and the depth multiple and width multiple are set to 0.33 and 0.55. The warm-up strategy was adopted to first warm up the model, set the initial learning rate as 0.01, the number of warm-up learning rounds as 3, the initial momentum as 0.8, the paranoid learning rate as 0.1, and the epoch as 50.

# 3.2 Model validation and analysis

Model testing performance was evaluated based on accuracy (P) and class average accuracy (mAP). The mAP value is defined as the mean of the average accuracy of each class (average accuracy, AP), and the AP value corresponds to the area under some type of P-R curve. mAP is a performance indicator of comprehensive evaluation. It represents the Average Precision (AP) of all categories in the data set. The specific calculation formula is as follows:

$$Precision = \frac{TP}{TP + FP} \tag{1}$$

$$AP = \int_0^1 P(R)d(R) \tag{2}$$

$$mAP = \frac{1}{m} \sum_{i=0}^{m} AP_i$$
(3)

Among them, TP is the true class, indicating that the correct prediction is correct, FP is the false positive class, indicating that the wrong prediction is correct, and FN is the false negative class, indicating that the correct prediction is wrong.

The test results of the test set are shown in Table 1:

 Table 1. Model performance

category	P/%	AP/%
All	80.8	77.2
Car	80.9	79.1
Van	90.6	98.5
Truck	65.5	63
Bus	85.9	83
Cyclist	79.6	65.6
Motorbike	82.6	73.8

The effect diagram of the real vehicle test is shown in Figure 4



Figure 4. Part of the results

### **4. CONCLUSION**

In this paper, an automobile object detection method based on Yolov7-Tiny is proposed. At the present stage, the identification methods for vehicle detection mostly adopt the method of machine vision. Under the same data set, the accuracy difference between different models is not particularly large. In terms of model size, this model is only 11.7M, which is its unique advantage. It has been verified that the method proposed in this paper has an average accuracy of 80.8% and 77.2% for all kinds of vehicle detection.

# 5. ACKNOWLEDGMENTS

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# Multi-Data Center Realization and Operation Efficiency Modeling Analysis of Intelligent Physical Education System

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Abstract: Distributed data centers shield the metadata differences of multi-source and heterogeneous remote sensing data, and provide a basis for multi-source and multi-center remote sensing data integration. Implementation in teaching and application in extracurricular sports activities, students' physical health, etc., in order to give full play to the auxiliary role of CAI in physical education, namely user management, online course management, question bank maintenance management, real-time examination management, scoring review management, System management, user health information collection, database design. When students log in to the teaching system to inquire about required materials, they can also communicate and discuss with teachers online, which promotes good communication between students and teachers. In the application process of the system, it can be found that the teaching of this system has relatively strong flexibility and is not constrained by location and time.

Keywords: Multi-Data Center, Operation Efficiency Modeling, Intelligent Physical Education

### **1. INTRODUCTION**

The emergence of computer multimedia technology, the application of network technology, and the arrival of the digital information age have brought profound changes to modern teaching, impacting traditional teaching modes and teaching concepts, and causing changes in teaching methods and methods [1]. It is widely used in various fields of education and teaching. As an important part of school education, school physical education is a huge and systematic project. With the expansion of school scale, more students and more classes, it brings great difficulty to the teaching of physical education teachers. How to use new education ideas and educational ideas as a guide [2].

Today, the new intelligent teaching system makes full use of computer technology, pays attention to the important position of students in teaching, and helps students better understand and master knowledge [3]. Since the current physical education distance teaching system has not yet achieved intelligent and personalized teaching, some teaching systems do not have the function of teaching students in accordance with their aptitude, and appropriate teaching plans cannot be formulated according to the learning situation of individual students [4]. Based on the B/S three-tier framework, with the WWW browser as the carrier, the user interface is realized, the transaction logic is realized on the front end, the main transaction logic is realized on the server end, and the database access is realized through the server end.

Put students at the center of teaching, use computers to change the traditional CAI teaching mode, and facilitate the mastery and understanding of knowledge [5]. This paper mainly studies the design of an intelligent physical education system based on knowledge, hoping to bring some help to relevant personnel [6]. The significance of carrying out the above research is that, first of all, the multi-source remote sensing metadata format conversion based on the unified geographic information standard shields the metadata differences of multi-source and heterogeneous remote sensing data from the distributed data center, and is a multi-source and multi-center metadata [7]. Remote sensing data integration provides a foundation. Users do not need additional research and development work, and only need a few simple settings to successfully access the system, and efficiently complete information collection, communication, consumption and analysis, and do not need to know the underlying technology. Realization [8].

Abstract, hide or isolate the internal functions of storage (sub) systems or storage services to separate the management of storage or data from the management of applications, servers [9], and network resources, so as to achieve independent management of applications and networks. As an important part of school education, school physical education is a huge and systematic project. With the expansion of school scale, more students and more classes, it brings great difficulty to the teaching of physical education teachers. How to use new education ideas and educational ideas as a guide [10].

CAI is a computer-aided method and technology that overcomes the single and one-sided shortcomings of traditional teaching methods and conducts various teaching activities [11]. A good personalised learning environment. Because the subject of physical education is very practical, and students are more active in their thinking in the learning process, they need to communicate with teachers in depth, so it is more suitable to use an intelligent physical education teaching system for teaching [12].

Agent is a service program that has the ability to run independently. Compared with many software entities, Agent has a higher level of intelligence and has the following characteristics. (1) Self-control: Agent can run operations by itself without human operations, and has the ability to control its behavior and internal state [13]. The intelligent physical education teaching system is mainly a teaching method that uses multimedia to achieve teaching. Compared with the traditional teaching mode, this teaching mode can be more targeted for teaching [14]. A fixed teaching time or teaching location is required. In addition, in the existing remote sensing data product production system, the product production process is mainly organized by experts, the process is fixed and needs to be prepared in advance, and the product production process cannot be organized according to the individual needs of users. Standardized information product flow [15].

### 2. THE LITERATURE REVIEW

The article published by Quick and Choo in 2014 also reached the same conclusion: "Although the functions of the current remote sensing data processing system have been improved, the scalability problem still exists for the processing of massive remote sensing data, and the volume of remote sensing data is far beyond the processing capabilities of current processors (Quick and Choo, 2014)".

However, limited by the user's computer ability and remote sensing industry knowledge level, ordinary users often cannot obtain the remote sensing data products they need smoothly (Mamun et al., 2017; Gubbi et al., 2013).

# 3. THE PROPOSED METHODOLOGY

# **3.1 The Intelligent Physical Education Teaching System**

CAI physical education can make things change from static to dynamic, from virtual to real, from cumbersome to simple according to students' observations, so that things that are not easy to observe can be clearly presented in front of students. Intuitive picture. Different students have different learning needs, and the Web server can adjust the teaching plan according to specific needs, so as to provide students with appropriate teaching information. By accessing the system, teachers are able to check students' learning and test scores online.

System users mainly include students, teachers, and administrators. In terms of permissions, students only have basic permissions to query teachers and learn in an orderly manner according to the teaching progress, so as to complete the tasks and assessments assigned by teachers. The authority of the teacher is to manage the selection of the question bank and the progress of theoretical teaching. The main design contents of the standard action model library include: sports normative actions, similarities, names and image files. The design of the student database mainly includes personal information, learning objectives and mastery of students. In the design, the student library can be divided into database and record library.

Students generally gradually transition from concrete image thinking to abstract logical thinking. For physical education, the second is to introduce the teaching strategy module, which is a very important part of the entire design. Because there are great differences in the foundation and physique of different students, different teaching strategies need to be adopted, so the system has set the learning strategies in the learning record database. The main method of cultivating students' ability to generalize and think is to form concepts based on appearances The main method of cultivating students' reasoning thinking is to stabilize knowledge and use knowledge.

# **3.2** The Multiple Data Center Implementation

After the distributed metadata index is constructed, distributed data retrieval can be performed. In addition, in order to improve the efficiency and robustness of distributed data retrieval, optimization of hotspot metadata cache and distributed high-concurrency access control will be carried out. The demand promotes the continuous development of the business. The log system needs to be overall designed according to the business requirements, not only to meet the reliability of the storage of each business, but also to ensure the convenience of the operation and maintenance personnel to use the system. Therefore, at the beginning of system design, it is necessary to consider providing a unified and complete API interface and clear and comprehensive documentation.

Once data is written, it will no longer be moved, and new data will often be written to newly added nodes, resulting in old data always being old nodes, which will lead to problems of unbalanced load and low overall resource utilization. Ceph abandons the traditional way of looking up data in a distributed file system. The essence of multi-user remote sensing data sharing based on cloud storage is to establish virtual mapping to OpenStack-Swift object storage for multiple users. Each virtual map is associated with a user ID, different users are isolated from each other, and the process of storing data does not affect each other. Renaming of remote sensing data files per user. The two interceptors are equivalent to marking each log data. When the log is collected locally, the specific source and generation time of the log can be quickly identified through the analysis of the message header, so that Storm can analyze the calculation process. Aggregation and separation.

On the one hand, the user's ordinary application for storage space is directly and automatically processed and fed back to the user, and the operation information is written into the log; and process. Then it is necessary to continue to recursively query the remote sensing product dependency knowledge base, and at the same time assist the product upper and lower hierarchical relationship knowledge base to verify the rationality. If a user submits an NPP product production order, the lower-level data products can be derived as LAI, PAR and FPAR according to the product dependency knowledge base. At the same time, it will continue to restart as the log collection rules change. Based on the above factors, a general automatic deployment system is written, which can execute Flume installation, agent start, stop and restart commands with one click.

# **3.3** The Operational Effectiveness Modeling Analysis

It can also create a more comfortable situation and emotional experience, arouse and ensure students' attention and interest in learning, so as to arouse students' enthusiasm for learning and stimulate students' enthusiasm for learning. When the user logs into the sports distance learning system with the student's account, the system will automatically generate an agent in the control interface, and the control interface of the student information file will be automatically generated in the agent system, and it will find the student's information in the student information database through the network.

Students use the test data in the question bank, and effectively play the independent study and test simulation training functions of the question bank management module. They can not only consolidate their learning in peacetime, but also conduct special intensive exercises and simulation tests according to their own needs before the test. The remote sensing cloud prototype system is mainly realized by deploying remote sensing data integration, management, distribution and sharing systems, multi-source remote sensing product production systems, remote sensing cloud storage systems, and user management systems on the virtualized resource pool built by OpenStack. This section mainly simulates the generation of online application exception logs in the US computer room, and collects and sends the detailed stack information of the exception to the local computer room through the log collection system. Through real-time analysis of the log, it is determined that the abnormal information needs to be alerted and an email notification is sent. , by browsing the content of the email.

### 4. CONCLUSIONS

The modern distance teaching system applies the agent technology, and adopts the individualized teaching strategy according to a series of characteristics such as students' learning level and difficulties in learning by using intelligence. This paper mainly aims at various shortcomings of current physical education teaching and CAI system, and designs an intelligent physical education teaching system based on the dynamic characteristics of physical education teaching. restrictions, and can meet the needs of students in different situations.

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# Software Realization of Progress Control Platform for Country House Tourism Development from the Perspective of Integrated Communication Network Operation

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**Abstract**: This paper aims to build a system platform that meets the current needs of homestay management by introducing a set of progress control platform of an advanced country homestay tourism development system and using the Android operating system as an application object by using smart phones as operating tools. The problem of Internet application in the homestay industry. This research is technically based on Android system, and introduces Java and H5 for system development. Java language can realize the basic framework of App, and H5 can realize the construction of kernel. In terms of software service, the service attitude of customer service and the consulting service provided by the owner affect consumers Buying intentions, good homestay buyers evaluations in terms of booking intentions will speed up consumers' purchasing decisions.

Keywords: Software Realization, Progress Control Platform, Country House Tourism, Integrated Communication Network Operation

### 1. INTRODUCTION

Communication is an important foundation and symbol of national modernization. Population growth and economic development [1] have also put forward higher planning and construction requirements for communication networks, and the status of communication network network planning has become increasingly prominent [2]. At present, the problem of repeated and disorderly construction of infrastructure in my country's communications industry still exists to a certain extent, especially after the reorganization of my country's communications industry [3], many communications operators have participated in market competition. The construction of a smart city is an overall strategic plan based on the needs of urban development [4]. During the planning and overall planning period, the government has played an important role in overall planning and policy leadership [5].

The construction of a smart city is an inevitable requirement for the development of modern cities, but in the process of construction planning [6], it not only reflects the "smart" nature of the city, but also strictly follows the concept of environmental protection and ecology for design and construction, protecting and optimizing the environment in the process of urban development [7], to achieve the common development of the city and the environment. Smart city effectively construction integrates the government, communication network operation system [8], public service system and other enterprises of different nature, and comprehensively considers the era standards and needs of smart city construction [9]. The construction of smart cities for cities is to combine the different development needs of different cities Analyze the current situation, and then make a reasonable plan for the overall development of the city. During the whole planning process [10], the government made an overall strategic plan based on the needs of urban development, and the government played a leading role during the planning and overall planning [11]. Based on the

development of big data and the Internet of Things, smart cities will be an inevitable trend in the development of every city. In the process of smart city construction, it should not only reflect the wisdom of urban construction, but also reflect environmental protection [12].

Early research on homestays mainly focused on qualitative research, exploring the development status of homestays and solutions to macro-problems [13]. Liao Huilan (2006) took Yangshuo rural family hotels as the research object, and proposed the marketing model and concept of homestays, paying attention to the creation of family atmosphere and customer participation [14]. In the entire management process of an enterprise engineering project, the project progress is the key content, mainly because it involves the cost of the entire project [15]. If the construction period cannot be within the company's controllable range, the cost of the entire project will increase rapidly [16]. Because while ensuring the quality of the project, the control of the project progress has become the main content of the business management of the entire company, which requires the enterprise manager to decompose the project according [17] to the actual situation of the project. In addition, the development of homestays is also an effective way to realize the supply-side reform of the tourism accommodation industry [18], and the people's demand for homestays naturally provides a broad space for "mass entrepreneurship and innovation" in the tourism field. However [19], although homestays have many advantages, there are also many development obstacles that are difficult to overcome through conventional market means in the short term [20].

For example, the main body of homestays is generally an individual, the scale of homestays is generally small, there are many types of homestay decorations [21], and the distribution locations of homestays are relatively scattered. These are the main factors that are inconvenient for centralized management. At present, there is no clear concept for the

integration of industry and tourism in my country [22]. Through reading literature, the concept is similar to the integration of tourism industry, which is the integration of tourism and other industries [23]. It can be seen that the "production" refers to the primary, secondary and tertiary productions excluding tourism. The primary production is all kinds of aquatic, native and other original agricultural products. The content involved is mainly divided into planting and breeding. Planting is Grain, fruits and vegetables are cultivated as crabs, shellfish, shrimps and livestock; secondary production is various industries or products [24].

# 2. THE PROPOSED METHODOLOGY 2.1 The Integrated Communication

**Network Operations** 

The Java development language is an object-oriented programming language. It has various advantages of the C++ language. In addition, the design of the Java language itself has many advantages. As a representative of the static objectoriented programming language, the Java language has been well implemented. Object Oriented Theory. The Java language has many characteristics, such as simplicity, robustness, security, platform independence, portability, and dynamics. It is a distributed programming language. Zhu Jianqi (2017), based on the integrated technology acceptance and use model (UTAUT), introduced three variables of "hedonic motivation, individual innovation, and information quality", and took WeChat as an example to explore the influencing factors of tourists' use of tourism WeChat. At the same time, according to the sub-items To complete the preparation of the project progress management plan, set up project nodes and project plans, and pre-manage various situations that may occur in the project [4]. In the actual implementation process of the project, through the project management system, the project progress, bills, inventory equipment and other businesses are managed and analyzed, so as to improve. Rise. The entire project management efficiency, to meet the enterprise's work objectives to improve project efficiency.

The construction requirements of smart cities for the communication network infrastructure are "overall planning, unified construction, and multiple sharing". Based on this requirement, the network structure is optimized, the network system of the entire city is planned in a unified manner, the line direction is improved, and the backbone network and metropolitan area network are established. , distinguish the construction standards of industrial, commercial and home networks, and carry out construction and upgrades in strict accordance with the actual docking requirements of the access network and the home network. In addition, the construction of smart cities also requires operators to strengthen the interaction and cooperation.

# **2.2** The Country House Tourism Development

In order to better build a smart city, the construction of basic communication facilities should be more advanced. This is an inevitable requirement for building a smart city, a development opportunity for basic communication infrastructure construction, and a choice and challenge for basic communication infrastructure construction. The biggest problem facing communication network operators is how to meet the needs of smart cities. At this time, the Internet application technology is represented by Html. With the emergence of dynamic web page technologies in the later period, such as ASP, there are gradually forums and commercial websites. Dynamic website is already the mainstream application technology in the 21st century. In the early days, due to the diversification of dynamic website technology, developers can provide Asp. Net, Jsp, Php and other technical choices, with the support of these technologies, the software systems that can be applied through the Internet are more diverse, including human-computer interaction through browsers as tools, client-server interaction, etc. The concept of integration can be understood as: on the basis and premise of standardization and specialization, the various parts of a whole are organically connected with each other and coordinated to work in order to exert the overall benefit and achieve the purpose of overall optimization. Although system integration has been widely used in many fields, the research on system integration at home and abroad has not formed a complete set of ideas and methods.

# **2.3 The XML Interactive Data Analysis for Online Solutions**

Therefore, we have reason to believe that these two age groups may be the main users of the current mobile terminal APP. In terms of occupation, students account for about half, company employees account for 31.45%, and the distribution of other occupations is not much different; in terms of academic qualifications, undergraduates are the main ones, followed by masters; in terms of monthly disposable income, 45% are within 1,500 yuan. 91%, 3001-8000 yuan accounted for 33.97%. AJAX English full name Asynchronous JavaScript and XML, is a web development technology to create interactive, fast dynamic web applications, mainly used in interactive web system development, it the biggest advantage is that the local data on the page is updated without updating the entire page, and the back-end program can respond to the foreground request faster.

Stieglitz believes that industrial integration generally includes three stages. The first stage is the initial stage of industrial integration. There are clear boundaries and scope of activities between the two industries. There is no connection between the groups they serve and the service products they provide, and they are independent.

# 3. CONCLUSIONS

Consumers' personal cognition (M = 3.8906, SD = 0.69125) is the most important factor affecting the willingness of tourism APP users to purchase country houses. The environmental atmosphere (M=3.7062, SD=0.65332) has the least influence on the purchase intention of the tourism APP users. The realization of the key problems of the core modules such as system security module, housing resource maintenance module, landlord assistant module, and comprehensive query module is realized, and it is proposed to solve the background problems through the J2EE platform. A very convenient online booking platform for homestays has been developed, which not only facilitates tourists, but also makes use of the spare rooms of various landlords.

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# The Intelligentization of Second Language Acquisition Assisted Cognitive Linguistics Based on Internet Dynamic Information Network

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Abstract: This paper combs the basic concepts of dynamic system theory in detail, including the overall connectivity, nonlinearity, self-organization and attractive state of the system, and the sensitivity and difference of the initial state. And from the neurophysiological level, the hot issues of second language acquisition are discussed briefly, so as to provide a new idea for the research of second language acquisition. It is proposed that cognitive linguistics can provide coherent and appropriate theoretical guidance and method reference for second language acquisition. The deepening of second language acquisition research can enrich and test the theoretical assumptions of cognitive linguistics, and promote the continuous maturity and improvement of the theoretical system. Through the statistical analysis of the pre-test and post-test of the CET4 simulated test scores of the two groups of students, it is found that this training mode is helpful to improve the students' English ability.

Keywords: Second Language Acquisition, Cognitive Linguistics, Internet Dynamic Information Network

### **1. INTRODUCTION**

In recent years, the discussion and research on the relationship between explicit knowledge and tacit knowledge has become one [1] of the hot topics in foreign language circles. Native speakers use tacit knowledge when using language. If second language learners can convert explicit knowledge and automatically use tacit knowledge like native speakers [2], they will have ideal language skills. The 5th National Seminar on Cognitive Linguistics and Second Language Acquisition, hosted by the China Cognitive Linguistics Research Association [3] and organized by the School of Foreign Languages of Shandong University of Finance and Economics [4], was held in Shandong University of Finance and Economics from October 28 to 30, 2016. All colleges and universities can explore and establish a new teaching mode of Internet + according to the actual situation of the school [5].

The majority of English teachers can keep pace with the times in actual teaching, and combine modern information technology with modern foreign language teaching theories to carry out teaching reform experiments [6]. The experiments cover the English classroom teaching mode. Linguistic research" is the theme. The combination of the latest achievements of modern information technology and modern educational theory has brought opportunities for educational innovation [7]. As far as foreign language teaching is concerned, the teaching reform experiment based on the Internet + modern foreign language teaching theory with the purpose of improving students' [8] comprehensive application ability of listening, speaking, reading, writing, and translation has attracted more and more attention. In order to introduce this theoretical framework to domestic scholars [9], due to the limitations of research methods, the research on language use objects in the field of applied linguistics is still at the level of describing the phenomenon of language acquisition [10].

This paper sorts out the most relevant concepts of dynamic system theory and applied linguistics in detail [11], and takes the research results of second language vocabulary development as an entry point to demonstrate the application potential of the theory in the field of second language acquisition [12], and propose some research methods. As early as the beginning of this century, Robinson (2001) systematically discussed the cognitive theory in second language acquisition research and the cognitive factors infiltrated in second language teaching [13], and proposed the cognitive orientation of second language acquisition research, namely by explaining the reasoning and intelligent structure of language users. Therefore [14], the core question of whether to teach grammar is whether the two kinds of knowledge can be transformed into each other, so as to promote the improvement of learners' language ability [15]. have important meaning. Since the beginning of this century, the research on cognitive linguistics at home and abroad has increasingly shown interdisciplinary characteristics [16], resulting in interdisciplinary research fields such as cognitive sociolinguistics, cognitive pragmatics, and cognitive poetics [17].

The research scope of cognitive linguistics has been greatly broadened, and interdisciplinary research results have been emerging. Krashen believes that language acquisition can only occur when language learners receive comprehensible language input [18]. Swain believes that in addition to comprehensible input, comprehensible output is also a necessary condition for second language acquisition, and communication between people emphasizes that language output must be comprehensible [19]. Writing and speaking are the two main forms of language output. Strengthening the training of writing and speaking can promote the automation of language use, thereby effectively [20] improving pragmatic ability. The formulation of complex systems is mostly used in the fields of meteorology and biology, while the theory of dynamic systems Mostly used in mathematics [21].

Although the names and origins are different, these theories all point to the same dynamic. Some scholars have pointed out that it is more direct and effective to study the relationship between language [22] and the brain from the perspective of neurolinguistics; many ambiguous issues in the humanities and social sciences such as to study with emerging interdisciplinary [23] disciplines, to use empirical methods to verify. Cognitive linguistics emphasizes that language is not a closed, self-contained system, but a dynamic entity that is constantly influenced by its users [24]. The motivation of language is rooted in people's perception of the external world. The perception of people, which emerges in people's interaction, not only has heterochrony but also has strong heterogeneity. Second language acquisition researchers divide language knowledge into two different dimensions: explicit and implicit.

# 2. THE PROPOSED METHODOLOGY

# 2.1 The Internet Dynamic Information Network

="Explicit knowledge" is the knowledge of language rules that second language learners can recognize and speak, that is, the learners know what they know. This includes analytical knowledge such as second language phonology, vocabulary, grammar, pragmatic and social characteristics, as well as metalinguistic knowledge.

Many scholars have conducted multi-angle and in-depth discussions on cognitive linguistic ontology, such as cognitive understanding, categories, prototypes, constructions, metaphors and metonymy, and many of them have applied cognitive linguistic theories to Chinese. Wei Zaijiang discussed the grammatical metonymy mechanism of fully quantified parallel structures such as "Zhang Wang, Li Zhao, Joy, Anger, Sadness". In the experiment, the author divided 80 students from two classes of business English major of 15 into the experimental group, and the control group, each with 40 people. The students have studied English for 10 years from the third grade of elementary school to the third grade of high school, and then were admitted to the English major of vocational colleges.

The students in both classes are managed by the same instructor. The primary feature of a dynamic system is that the system consists of a variety of variables or parameters, which are interrelated and in constant motion. A dynamic system can be a city's transportation system or a forest's ecosystem. Cognitive linguistics shifts the research center of second language acquisition to Learning an individual's experience of the physical world and its interaction with it constitutes a dynamic model that comprehensively interprets and guides contemporary language teaching and research.

Tacit knowledge is completely tacit knowledge (tacit knowledge), which is the knowledge mastered by the learner's subconscious, that is, the learner does not know what he knows. When children master the characteristics and rules of their mother tongue in an unconscious state, they have the ability to use their mother tongue, so their knowledge about their mother tongue is tacit knowledge. Song Rou studies the cognitive mechanism of the complex structure of Chinese clauses. Constraints, introduced the stack mode, new branch mode, post mode and confluence mode of Chinese clause complex, analyzed the nature and cognitive mechanism of Chinese clause complex structure, and considered that the duration of stack mode has no upper bound. It can be freely scaled. Dynamic system theory pays more attention to the interaction between multiple components of the system and the internal and external environment of the system. The environment does not exist in isolation, but is an integral part of the system.

# 2.2 The Second Language Acquisition Aids Cognition

Around this key scientific question, the researchers focus their research on two aspects: (1) to what extent the second language processing depends on the learner's native language brain network. Compared with the traditional static explanation method, the use of diagrams or The force dynamic diagram in the form of scene analyzes the meaning of modal verbs, which can help learners to obtain better cognitive effects.

Similarly, prepositions used to express spatial relationships are often combined with verbs. Strong interface theory holds that explicit and tacit knowledge can be transformed into each other through practice. Ellis pointed out four functions of practice in the transformation of explicit to tacit knowledge: it can make declarative knowledge easier to extract; it can make tacit knowledge graphical and chunking; it can automate knowledge and make output more fluent. Most of the papers related to second language acquisition in this seminar are supported by experimental or corpus data. It can be seen that, as a set of opposing concepts, explicit and tacit grammar knowledge are two independent knowledge systems. There are many opposing features in representation and knowledge processing.

It is more normative and scientific. Yao Yanling analyzed the cognitive mode of displacement construction in Japanese and Chinese with the help of the Chinese-Japanese translation corpus, and believed that Chinese often use mode verbs while Japanese often use path verbs to indicate displacement; through a survey of intermediate level Japanese learners' acquisition of displacement verbs as an example of second language lexical research, lexical knowledge has all the characteristics of a complex system (Meara 2006). Recognizing a word is a very complex concept, including not only knowing the meaning-form mapping, but also multiple information such as phonetics, spelling, word meaning, morphology, part of speech, and register.

The single-mechanism model of bilingual processing holds that the processing of the second language must rely on the support of the native language brain network, and the time of second language acquisition is the main factor determining the difference in activation during language processing. According to the three cognitive principles of real-world dynamics, different interpretations of the same scene, and metaphorical thinking, the polysemy systems and the expansion paths of the meanings of basic English prepositions such as core meaning, extended meaning, contact meaning, and subordinate meaning are defined.

# **2.3** The Acquisition-Assisted Cognitive Linguistics

Three types of interface theory explain the role of classroom teaching in different degrees. The focus of the question is whether the second language learning can be completed under the influence of implicit or explicit language input, and to what extent can implicit or explicit language teaching create successful second language learners. [16] Dai Manchun believes that the interface problem cannot be avoided in classroom teaching activities. Tian Yanming tried to construct a discrete-continuous schema representation model of the phonemic dimension, and deeply excavated the conventional variables that affect the representation of phonemic schemas, and proposed phonemic habituation.

# 3. CONCLUSIONS

The author believes that the perspective of dynamic systems theory can comprehensively interpret key issues such as the multi-layer interaction of cognitive processes and environments in second language acquisition research, the nonlinear characteristics and stagnation of language dynamic development, and the influence of mother tongue and individual differences. It is especially suitable for exploring the dynamic development of language. However, it can provide analytical tools with high accessibility and completeness for the nature and structure of complex language phenomena, and inspire teaching workers to better cut into language knowledge points. It has strong application potential in second language acquisition research.

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# Modeling and Analysis of Language Transfer in Second Language Acquisition Assisted by Data Stream Fusion Algorithm

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**Abstract**: The Wiener process method is used to construct the degradation model, and the offline parameters are iteratively optimized using the EM algorithm combined with the training engine data. Based on Bayesian method and test engine data, an evolutionary data stream clustering algorithm (I-APDenStream) based on the fusion of nearest neighbor propagation and density is proposed. This algorithm uses the traditional two-stage processing model, namely online and offline clustering, to find the differences between English and Chinese general pronouns, the similarity and difference between the mother tongue and the target language, and the generalization of the sentence pattern or usage of the mother tongue. Use negative transfer. It aims to fully understand and scientifically grasp the status and role of language transfer in second language acquisition.

Keywords: Language Transfer, Second Language Acquisition, Data Stream Fusion Algorithm

### **1. INTRODUCTION**

=The reliability level of aero-engines directly affects the safe operation of civil aviation aircraft [1]. Timely maintenance and repair can not only improve the safety level of the aircraft, but also reduce the operating costs of airlines and increase the competitiveness of the industry [2]. Therefore, the research on the reliability of aero-engines is very important. The research on the phenomenon of language transfer has a long history. Chomsky's Universal Grammar, which emerged in the 1980s [3], was once the main theory to explain language acquisition. This theory believes that human language acquisition depends on the language acquisition mechanism in the brain [4].

However, some traditional clustering algorithms have been difficult to adapt to the fast and changeable data flow data. Scholars at home and abroad have studied many new clustering algorithms for data flow mining, and have made great progress in this regard [5]. The process of second language acquisition is not only affected by the native language of ontology, but also by the impact of original language thinking on new knowledge [6]. The fundamental factor of the phenomenon of mother tongue transfer is that the user transplants certain structures into the target language, that is, the negative impact of the mother tongue on the foreign language. Pragmatics [7], that is, language pragmatics, studies specific discourses in specific situations, with particular emphasis on the understanding and use of language in different language communication environments [8]. Language acquisition goes through target language input mastery - output. Therefore, by comparing the differences between the two [9], it is possible to predict the difficulty of second language acquisition and the possible mistakes of learners, and use it as the basis for curriculum setting and teaching material compilation [10].

Clustering algorithms have become an indispensable part of data mining, and are often used to mine the distribution and implicit patterns of data information [11]. The performance of the clustering algorithm is proportional to the similarity within the class, and inversely proportional to the similarity between

the classes. However, it is not to deny the predictive role of contrastive analysis [12], but to think that the role of contrastive analysis in foreign language teaching cannot be overstated, and its diagnostic role is greater than its predictive role. Remaining useful life (RUL) [13] forecasting is an important part of forecasting and health management (PHM) technology. Current RUL forecasting is mainly based on datadriven methods, including probability distributions, statistical theoretical models, machine learning [14], etc. Liu Shuaijun uses the method of combining similarity and Kalman filtering. For Chinese students who learn English, the characteristics of Chinese in the output English persist in the levels of phonetics, syntax and grammar [15].

In the whole process of English learning, it is difficult for learners to get rid of the influence of their mother tongue., in which the first part of the online algorithm [16] is mainly used to statistically analyze the feature vector of the data flow to obtain its summary message [17]; while the second stage is responsible for the corresponding user request, and generates the final more accurate clustering result according to the information obtained in the first stage [18]. Only in a specific sense" can it be realized. In the basic research of "language game theory" and the theoretical research on second language acquisition [19], the value of meaning in the traditional sense is highlighted, that is, the language level of learners is stagnant and difficult to improve [20].

Therefore, it is more important and urgent to study the negative transfer of pragmatics. This paper uses data collected in teaching practice to diagnose learners' errors in the use of the target language [21]. The CMAPSS data set was verified for RUL prediction; Ren Ziqiang et al. fused multiple performance data, and predicted the engine RUL through the Wiener process with linear drift coefficient. First, start with the second language output results [22]. This level of research has roughly gone through three stages. One of the stages is the combination of the comparative analysis hypothesis and the study of language transfer phenomenon. The behaviorist school that prevailed in linguistics in the 20 years after World War II believed that [23].

There are two main categories of language transfer in second language acquisition, namely, the promoting misuse and interference of old knowledge on learning new knowledge, that is, positive transfer and negative transfer in the phenomenon [24]. Language transfer is a common phenomenon in the second language acquisition process. When learners communicate in the target language, they try to express their thoughts with the help of the structure, semantics or culture of their native language, and pragmatic transfer will occur [25].

# 2. THE PROPOSED METHODOLOGY

# 2.1 The Data Stream Fusion Algorithm

Core grammar refers to the general rules of grammar, while the rules of peripheral grammar refer to the specific rules of a language. More importantly, Universal Grammar introduces markup theory into the study of language transfer theory. If a part of high-quality cluster members are selected to participate in the fusion process, the quality of the clustering results will be significantly improved. Avoidance phenomenon refers to the phenomenon that learners deliberately avoid using certain language structures due to the differences between the mother tongue and the target language.

When the phenomenon of avoidance occurs, learners usually rarely use or do not use certain structures in the target language at all. Kalman filtering is a method for denoising the current data by combining known data. The main principle is to use the previous moment. The state estimate value and the current time state observation value calculate the current time state estimate value. Language transfer is considered to be a major obstacle in language learning. People are quite positive about the negative role of mother tongue in second language acquisition. The idea of the algorithm is to match the newly arrived data points with the existing data model. If the matching is successful, the existing model will be updated. Otherwise, these data points that may be abnormal points will be stored in the cache box. This theory It affirms the influence of the object on the subject's cognition of the relative person, but regards the need of the subject's cognition as the unilateral effect of the object and ignores the active role of the subject.

It has a positive role in promoting; on the contrary, the application of the native language habit is not only in the grammatical error, but also in the formation of an incorrect expression, especially the usage of the language. The negative pragmatic transfer is not a language error of the learner, but a Refers to pragmatic failures, which do not come from the grammatical errors of the language itself, that is, it is not the grammatical structure that leads to incomprehensible words. Errors and difficult flaws in the acquisition prove that differences between languages do not always cause language transfer. However, it has also been pointed out that the labelling theory is not yet conceptually clear.

# 2.2 Data Stream Fusion Algorithm Assists Second Language Acquisition

The characteristics of the data set are different, and the design of the selection strategy is also different. On this premise, Javad proposes an adaptive selection strategy. For example, in Chinese, the transitional conjunction "but" is often used to express the transition relationship. Therefore, in the English composition of Chinese students We will see the use of the word more. However, there are still few studies on discourse transfer, but the impact of cross-lingual discourse differences and cross-cultural pragmatic differences on language transfer is indeed can not be ignored. The state update equation, also known as data correction, is to use the current state measurement value and state a priori estimate to estimate the current state a posteriori, so as to calculate the current state estimate. The existing research has the following main characteristics: (1) The first level of research has achieved more results. The discussion of the researchers focused on whether the influence of mother tongue is positive or negative.

This algorithm proposes a dynamic deletion mechanism for micro-clusters, which handles historical micro-clusters and existing micro-clusters well, making the algorithm model more accurate. There is no major improvement. College English teaching should be the embodiment of language practice communication in the field of cultural ideology carried by language. It should not be a machine learning that does twice the work with half the effort. In the second language acquisition, the cultural background of the nonlinguistic situation. As far as pronouns are concerned, many scholars have found that English mostly uses pronouns in the form of antecedents, while Chinese mostly adopts zero anaphora.

In some places where English can use pronouns, Chinese must use nouns to connect, that is, Chinese nouns often correspond to English pronouns. In this system, learners start from their mother tongue, go through an interlanguage, and gradually approach the target language.

# 2.3 The Modeling and Analysis of Language Transfer in Second Language Acquisition

"Substituting the phonological regularity of the target language with the phonological regularity of the native language is the most direct manifestation of the interlanguage voice."

It is best to select the one that can reflect the implicit characteristics of the dataset, and design the best strategy. The selection process should be carried out with reference to the weight. In order to realize the fusion algorithm, the weight of each cluster member can be calculated. Data normalization is a standardized method that maps the amount of data to the [0,1] interval. This method can eliminate the influence of the dimension and magnitude of the original data, balance the data fusion process, and ensure the comprehensive health index to the original data information. The degree of explanation is beneficial for model building and later prediction. Connection theory or Parallel Distributed Processing Model is an important theory in cognitive science and neuroscience. Connectivity theory has been applied to language acquisition research for less than 10 years.

Proximity Propagation (AP) is a clustering method for the mutual transmission of information between neighbors. This algorithm mainly uses the similarity between data point pairs as a benchmark. The boundary between things and "I" is removed, and the concept of differential treatment given by the world is removed. "Heaven and earth coexist with me, and all things and I are one." Obtain the best class representative point set, so that all data points can be assigned to their corresponding classes. The sum of the similarity between the representative points reaches the maximum. Various apposition relationships between pronouns and nouns, such as "Li Hai drunk himself", "Li Hai" and "self" are apposition relationships, the apposition "self" is placed after the predicate "drunk", and there are many kinds of Chinese "this" Instructions, etc. are also not available in English.

The marker theory of language points out the relationship between markers and language transfer: that is, when the native language has marker settings and the target language has no marker settings, the possibility of native language transfer is very small; and when the native language has no marker settings.

# **3. CONCLUSIONS**

In this paper, in order to obtain better data stream clustering results, a new clustering algorithm, I-APDenStream, is designed. This algorithm is a fusion of the neighbor propagation flow clustering algorithm and the density flow clustering algorithm. The research on the phenomenon of language transfer has a long history, and there are gratifying achievements in many aspects, but there are still many problems to be solved. Universal grammar is proposed for children's language acquisition. In addition, it should also be noted that the way Chinese expresses speech behaviors is often different from the way English expresses behaviors, so as to avoid mixing up the pragmatic differences between English and Chinese and causing mistakes.

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# An Empirical Analysis of the Use of Discourse Markers by Second Language Learners Based on Cognitive Linguistics

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Abstract:An empirical analysis of the use of discourse markers by the second language learners based on cognitive linguistics is conducted in this paper. For complex and abstract syntactic forms, internal resources alone are not enough, and external forces are needed to make learners focus on such target language forms, hence in this paper, we combine the Discourse Markers. The cognitive translation view holds that there are multiple interactions in translation, and this multiple interaction is reflected in the cognitive subject, between the source language and the translator, and this will guide the general performance. The combinational study will help us to better understand the tasks and find out thesolutions.

Keywords: Cognitive Linguistics, Empirical Analysis, Discourse Markers, Second Language Learners

### 1. INTRODUCTION

Cognitive semantics is actually the process of analyzing the human concept system, meaning and also reasoning, in which concept is the core, and the other two parts are the extended structure. Conceptual system includes the concept of the concretization, directness and also abstractness. Cognitive linguistics integrates the research methods of the language typology and functional linguistics within linguistics by reflecting on research on the relationship between language and also cognition in the psychology, philosophy, linguistics, anthropology, neuroscience, computer science and other disciplines. Following the philosophy of non-objectivism and the language of empirical realism.

The focuses of the linguistics can be summarized as following aspects.

(1) The core issue of cognition is thinking, the expression form of cognition is concept, and the central process of the cognition is reasoning; language is an important tool for carrying thinking, expressing concepts, and running reasoning.

(2) Cognitive linguistics is based on empirical philosophy and studies translation from the perspective of the cognitive linguistics. Traditionally, it should be compared with literal translation and traditional translation methods.

(3) Empiricism holds that human awareness of the real world originates from daily experience, our conceptual system is derived from bodily experience, and physical experience plays a decisive role in shaping the conceptual system.

Cognitive linguistics' cognition and also interpretation of translation concepts reflect the cognitive activities that exist objectively in translation, and also consider the objective world and the cognitive world, which are both original, in order to achieve maximum reproduction. The principle of translation is to use different languages to restore and express the author's intention, making it easier for the readers to communicate with the outside world. Experience is based on the real world and is the premise of human cognition, and human language is formed based on cognition. It can be seen that the experience of the external world determines the human language.

As the cognitive and language activity, the translation has experiential nature. Whether in the creation or translation of the works, the cognitive subject is based on experiential. In the next sections, the details will be studied.

### 2. THE PROPOSED METHODOLOGY

#### 2.1 The Focus of Cognitive Linguistics

The cognitive translation view holds that there are multiple interactions in translation, and this multiple interaction is reflected in the cognitive subject, between the source language and the translator, between the target language and the translator, between the author and the reader, between the translator and the reader, in the Interaction occurs in any link of translation activities. This multiple interaction requires the translator to be loyal to the original text, to be based on the text, and not to do whatever he wants when translating. Metaphors are an important mechanism of human thinking and behavior. It is the basis for our understanding of abstract things. Express understanding of the objective world through similar associations. Similar association is also a kind of the metaphor, which is the basis of comparative cognition.

Cognitive linguistics provides a new visual and theoretical basis for translation research provides the new visual and theoretical basis for the translation research, including crossmapping from the original scene to the cross-mapping from the original scene to the target scene and its main application in the 3D translation process. The focuses should be listed as the follows.

(1) Language often allows different windows to be opened, ie windows of attention are placed in the different parts of this complex without reference to the rest. Different choices of the interrelationship window openings also allow selection of the strongest attentional location within the complex, or take a particular perspective on the complex, while still expressing the entire complex in the appropriate context. (2) Cognitive Linguistics takes non-objective empirical realism as its philosophical basis. It understands the nature of language with the brand-new empirical language view, and studies language from the perspective of people's cognition and experience of the objective world.

(3) When human beings understand things, they need analysis and induction, so the categories are gradually refined, and then constitute categorization. However, the basis of the categorization is to complete the classification in the core concept, and generate marginal and core meanings.

# **2.2** The Empirical Analysis of the Use of Discourse Markers by Second Language Learners

To express the logical relationship between events in language, one of the most important relationships is causality. Therefore, the status of causal connection markers in texts and discourses is quite special, and it is of the great research value. Before discussing, it is necessary to define some related terms in the text. Regarding "chapter" and "chapter connection marker", domestic and foreign scholars have different definitions in different works. Regarding the definition of the "chapter", because different scholars have different understandings of the connotation and extension of "chapter". In the context of linguistics, language transfer is an important factor that must be considered. Language transfer occurs when learners make use of the general old language behaviors automatically and subconsciously when they acquire new language behaviors.

The research at the word level extends to the generalized grammaticalization at the discourse and pragmatic levels; and how typical concepts, event structures, etc. become explicit grammatical means and sentence structures, and thinks that grammaticalization begins with semantic re-deployment The meaning is constantly weakened, the abstract meaning is gradually strengthened, and the degree of grammaticalization is gradually increased, resulting in the result of semantic blurring. Therefore, this combination will be efficient.

# 3. CONCLUSIONS

An empirical analysis of the use of discourse markers by the second language learners based on cognitive linguistics is conducted in this paper. In formal contexts, the complexity of language items and the differences between native and target languages are important factors that affect learners' mastery and use of discourse markers. This paper constructs the combinational study taht will promote further studies.

# 4. ACKNOWLEDGEMENT

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# Application of Cognitive Linguistics Theory and New Interpretation of Second Language Teaching

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Abstract: Application of cognitive linguistics theory and new interpretation of second language teaching studied. The concept of language acquisition based on cognitive linguistics theory overcomes the limitations of Universal Grammar at the theoretical level, and has a strong explanatory power to the essence of language and language learning. It has been favored by many scholars in the field of linguistics. The more frequently a learner is exposed to a certain construction in language input, the easier it is to solidify this construction in the memory of the brain. Thus, the distribution of semantic-semantic mappings in L2 input largely affects acquisition trajectories. Hence, this paper gives the new suggestions regarding the traditional study patterns for the improvement.

Keywords: Second Language Teaching, Cognitive Linguistics Theory, New Interpretation Method

### **1. INTRODUCTION**

Language learning based on the perspective of the cognitive linguistics combines semantics and grammar, treats grammar as an independent and open system, mobilizes the human brain comprehensively, and realizes the connotation of new knowledge through the fusion of existing grammar knowledge and existing meta-knowledge. Assimilation and absorption are the existing research trends. The basic point of view of cognitive linguistics is "reality-cognition-language", and the cognitive process of puns is the same.

People use pun language forms such as homophonic puns and semantic puns to then link them together according to the set context. Puns are relatively independent of each other in dual contexts. On the basis of the audience's own knowledge and experience accumulation, they match the puns and the dual contexts one by one, so as to analyze the double meaning of the language and achieve the result of double cognition. Based on the literature review, the current scenarios have the listed issues

(1) In-depth translation has a relationship with anthropology and translation studies. It can be said that in-depth translation uses translation studies as a tool to explore the essence of the communication and expression in anthropology, or it can be interpreted as anthropology provides theoretical support for in-depth translation, while translatology provides the in-depth translation translation provides practical support.

(2) Because the degree of similarity in the cognitive context is relatively small, readers of the target text have a smaller acceptance channel capacity than readers of the source text, and there are gaps in the experience, perception, and interaction of the pun meanings. method, or compensatory translation.

(3) In English language learning, we should pay more attention to metaphor theory. Only by improving the ability to understand metaphors can we promote the improvement of the English language expression ability.

In the figure 1, we firstly give the demonstration and in the next sections, the details will be studied.

#### Semantics

- The study of the meaning of words, phrases, and sentences
- Individual words have semantic features that indicate various properties or meanings inherent in the word Ex: Woman → animate, human, female, adult The relationships between words
- Knowledge of semantics helps teachers

   Explain synonyms, antonyms, homophones, homonyms.
- etc. Develop vocabulary and word study lessons on semantically related words Explain cognates and false cognates Understand challenges caused by differences in semantica in students' L1
- Figure. 1 The Demonstration of Second Language Teaching (https://slideplayer.com/slide/6517771/)

# 2. THE PROPOSED METHODOLOGY 2.1 The Overview of Cognitive Linguistics Theory

Cognitive linguistics is a branch of the linguistics. Cognitive linguistics involves disciplines such as the psychology and artificial intelligence. Cognitive linguistics is a new discipline, which believes that syntactic structure and semantic structure are corresponding, reflecting the speaker's cognition of events from a specific perspective. There are different views in the cognitive linguistics, but the central view is the same, namely that language can convey a person's real psychology, and that one can study language through methods such as graphical words in language.

For the efficient education, and according to the theory of the cognitive linguistics, teachers can carry out the passive voice teaching from a new perspective, solve students' pragmatic errors in passive voice, and let students master the systematic knowledge of the English passive voice grammar. Cognitive linguistics research has discovered many conceptual processes related to language, including the categorization, metaphor, metonymy, conceptual integration, schematization, selective attention, figure-background separation, perspective and also indication, etc. These core conceptual processes construct the meanings associated with the expressions, and when different expressions are chosen in discourse, we perceive the given situation in a certain way. We can do this through different shaping of knowledge and understanding, we jointly attend to and process meaning construction in communication. The

conceptualization induced by language use is a semantically rich, dynamic, and intersubjectively shared representation that conveys to the reader or listener the target situation that the writer or speaker and the target situation that is intended to be expressed.

As our focus, the metaphor will be specially considered. Cognitive linguistics emphasizes that schema is the basic unit of cognition, that is, in language comprehension, readers often transform the image corresponding to the text into a certain category of the concepts in their minds, and activate related concepts to form a whole cognition. The so-called translation is to express one language in another language, so that people can better understand and recognize the target language, and what cognition ultimately reflects is a way of thinking. In addition, metaphors are ubiquitous and also exist in every language, and in the process of social development, metaphors are constantly innovating and developing, presenting an irresistible trend of development. Then, this can be applied to the efficient educational activities.

# 2.2 The New Interpretation of Second Language Teaching

Second language classroom teaching focuses on the learners' effective learning, and its core is the core progress and also development of learners' language ability. College English teaching based on the theory of second language acquisition should be based on the actual situation, explore in a planned and also purposeful way, seek innovation while changing, constantly grasp and the persevere, and improve the English teaching model. College English teaching mode includes the teaching content, teaching organizer, teaching method, learners, teaching environment and other factors. Under the guidance of the second language acquisition theory, teachers should strengthen knowledge transfer in the process of the English teaching, so that students can apply what they have learned to life, return to life, understand and learn English with familiar life scenes, so as to improve their English ability.

Then, we give the following suggestions.

(1) Learning a language is to be able to use it, and the ultimate goal of second language classroom teaching is to improve learners' ability to use language in real life.

(2) Effective teaching must be reflected in the teaching process, and effective monitoring of the teaching process is a specific scenario for realizing effective classrooms. "Effective monitoring" means monitoring the effectiveness of second language teaching. To achieve this goal, we must have both "effective teachers" and "effective students".

(3) What kind of the method should teachers use to enable students to overcome the language-level errors in the original text and realize the teacher's requirements on the non-language level. Therefore, changing the way or method of learners' perception of text is the first step in teaching reform.

# 3. CONCLUSIONS

Application of the cognitive linguistics theory and also new interpretation of the second language teaching studied. Autonomous in-depth processing not only helps to digest the preliminary processing content, but also helps to cultivate their ability to think independently and comprehend the text, to discover whether there are new features in the text. Hence, this paper gives the combinational studies regarding this issue. In the future study, the different applications will be applied to make the study more efficient.

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# Research on the Promotion of the Development of Regional Tourism Economy by the Silk Road Economic Belt Based on Remote Sensing Prediction Model

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Abstract: The article constructs a spatial Durbin model to explore the economic growth mechanism of inbound tourism. Three remote sensing prediction models of Li content were established respectively, namely the PCA regression model, the BP neural network model and the RF model to study the role of the Silk Road Economic Belt on regional economic development. The scale of foreign trade, economic activity, transportation accessibility, and the local positive effects of tourist facilities are obvious; the local negative effects of major emergencies are obvious; the scale of foreign trade has a significant positive spillover effect; the degree of economic activity, tourist facilities, and major emergencies the negative spillover effect of the incident is obvious.

Keywords: Regional Tourism Economy, Silk Road, Economic Belt, Remote Sensing Prediction

#### 1. INTRODUCTION

In 2015, China's tourism theme was identified as "Beautiful China-Silk Road Tourism Year", which is the strategic concept of implementing the "Silk Road Economic Belt" and "21st Century Maritime Silk Road" (abbreviated as "One Belt One Road"), An important measure to promote regional cooperation between China and Central Asia and South Asia. On September 7, 2013, in a speech delivered by President Xi Jinping at Nazarbayev University in Kazakhstan, for the first time, he proposed to strengthen policy communication, road connectivity, unimpeded trade, currency circulation, and people-to-people connections, and jointly build the Silk Road Economic Belt. Strategic initiative . The "Silk Road Economic Belt" is an economic cooperation area formed between China, Central Asia, West Asia, and European countries on the basis of the ancient Silk Road. As the most important commercial artery in the world in history, there are rich world heritages along the ancient Silk Road [2-9].

According to Klimt, the basis of comparative advantage in tourism service trade is natural tourism resources. Shaanxi is located in the hinterland of China, in the middle of the Yellow River and Yangtze River basins. It is one of the important birthplaces of Chinese civilization and one of the provinces with the richest tourism resources in China. It is known as the "natural history museum". Shaanxi ranks first in the country in terms of density, number, and level of cultural relics. Its tourism resources are unmatched by several important domestic provinces along the New Silk Road Economic Belt, such as Xinjiang, Qinghai, and Gansu. As a province with rich natural resources and unique history and culture, Shaanxi's tourism service trade occupies an important position in the national tourism service trade. The "Ancient Silk Road" roughly began in the Qin and Han dynasties of China. It was an important channel for trade activities and cultural exchanges between the East and the West in ancient times. Trade exchanges along the way have been active for more than two thousand years [10-16].

The Third Plenary Session of the Eighteenth Central Committee has even elevated the decision to build the "Silk Road Economic Belt" to the level of China's national strategy. As part of the vision of "Beautiful China Dream", the construction of the Silk Road Economic Belt can bring China's relations with Central Asian countries closer, while creating a stable political and economic development environment for China's western border provinces. The Silk Road Economic Belt in the new era runs through the Eurasian continent, starting from China's Shaanxi Province in the east, passing through the five energy-rich Central Asian countries, the Middle East and North Africa, and west to the Port of Rotterdam in the Netherlands. It stretches for more than 7,000 kilometers and has a total population of nearly 3 billion. Huge development potential and extensive development basis. The Silk Road Economic Belt passes through vast inland areas in China. The provinces along the route include the five northwestern provinces and the four southwestern provinces, accounting for about 45% of China's land area. In addition, Yao Peisheng, the former Chinese ambassador to Kazakhstan, stated that "it will be difficult to build this economic belt without making political and cultural efforts." Undoubtedly, the tourism industry is the soft power of building the Silk Road Economic Belt, and it is also the hard foundation for the construction of the "Belt and Road" initiative and the construction of the Asian Economic Infrastructure Investment Bank and other major countries' strategies [17-21].

With the general rise of foreign tourism, related research in the 1960s continued to deepen and involved the economic effects of tourism, tourism management, resource development, leisure tourism, regional differences and spatial correlation. SmithS. L. J (1996)'s tourism analysis manual updated the definition of tourism organization and industry concepts; Brieden Hann and Wickens (2004) affirmed that tourism drives the economic growth of underdeveloped regions; Kimed (2005), Chi-Okoh (2005), etc. Scholars use quantitative methods to conduct empirical research on the relationship between the tourism economy of a specific country or region and the overall economy. With the gradual improvement of the strategic position of building the "Silk Road Economic Belt", academic research on the "Silk Road Economic Belt" by different scholars has gradually increased. At this stage, domestic and foreign scholars' research on the Silk Road Economic Belt mainly focuses on policy, transportation, energy, environment, cooperation, etc., and has achieved certain research results [22-24].

# 2. THE PROPOSED METHODOLOGY 2.1 The Remote Sensing Prediction Model

Principal component analysis (PCA), also known as principal component transformation, is a method based on mathematical statistical analysis that transforms multiple variables with high correlation into less comprehensive variables with low correlation. In actual research, there are many independent variables used to build regression models, and the correlation between the independent variables is high, and the data redundancy is large, that is, the data information contained between the variables and the variables overlap. Therefore, before building a predictive model, it is necessary to perform corresponding mathematical transformations on the original independent variable data, reselect independent variables, eliminate overlapping information between independent variables and reduce the number of independent variables, and use fewer independent variables to express the most content Information to improve the computational efficiency and accuracy of the prediction model.

Using the above linear transformation to convert the original p independent variables into news independent variables, using different linear transformation methods to obtain the new independent variable characteristics are different. In order to improve the calculation efficiency and accuracy of the model, keep the z in the above formula independent of each other, and make the variance of the linear combination as large as possible, so the constructed model needs to meet the following conditions. The difference in brightness value of PC1 image is hierarchical. The main reason is the difference in brightness value caused by the different content of mineral components in the salt lake. The texture of PC1 image is clearly visible, the noise is the smallest, and it contains the most information about the content of mineral components. It can separate the Li content information in the image, so the PC1 component image can be used to establish a remote sensing prediction model.

# 2.2 The Silk Road Economic Belt

The Silk Road, more than two thousand years ago, has promoted the trade, cultural prosperity, and religious spread between the East and the West in human history, greatly promoted the development and progress of social civilization, and set a model for modern international economic and cultural exchanges and cooperation. Based on the basic data of the number of outbound tourists of Chinese residents in 2013, the market share of each tourist destination in China's outbound tourism market and its development status are studied.

Therefore, Shaanxi's tourism service trade has obvious comparative advantages in tourism resources in the New Silk Road Economic Belt. The results show that the Moran's I index from 2001 to 2012 is positive and has passed the significance test. The inbound tourism economy of the "Silk Road Economic Belt" has significant spatial correlation. The economically backward provinces tend to be adjacent. From 2001 to 2012, the changes in Moran'sI index can be divided into three stages, with 2003 and 2008 as the turning point

respectively, mainly due to the influence of "SARS" and "Wenchuan Earthquake", and the spatial correlation of inbound tourism economy The weakening of gender and regional cooperation, but the overall development trend, especially under the "Silk Road Economic Belt" and "Opening to the West" strategy, regional integration and cross-regional markets for the tourism industry are taking shape.

The economic growth of inbound tourism is not only affected by the economic, social and tourism resource conditions of the province, but also by factors related to inbound tourism in neighboring provinces.

# 2.3 The Silk Road Economic Belt's Promotion of Regional Tourism Economy

The well-developed railway hub and highway network, as well as the convenient international airport, have brought tremendous development to Shaanxi's tourism service trade. With the successful holding of the Xi'an Expo in Shaanxi in 2011, its tourism external influence has continued to increase, and its tourism, catering and accommodation industries have shown a trend of rapid growth. Shaanxi's increasingly improved infrastructure and services have provided a solid foundation for the development of tourism service trade in the context of the New Silk Road Economic Belt. In the practice of international regional tourism cooperation, the tourism cooperation model among EU countries is the most influential.

Zou Tonglan pointed out in his research that the tourism cooperation of EU countries is reflected in two aspects: First, the strong promotion of cooperative organizations. The European Tourism Commission is a non-profit regional tourism management agency. With the strong support of 33 member states, it can uniformly formulate regional tourism. Policy, conduct overall tourism promotion to the outside world, and cooperate with the European Union and the European Parliament to formulate the benefit distribution mechanism of each member state, plan the protection of cultural heritage in a unified way, and promote the sustainable development of regional tourism; the second is a convenient visa policy for tourists from member states. Entry provides freedom 19-21. Another region worth learning from is Southeast Asia. Zhang Guangrui analyzed that ASEAN, as an intergovernmental organization responsible for regional tourism affair.

# 3. CONCLUSIONS

The spatial distribution of tourism activities between China and countries in the Silk Road Economic Belt region is uneven, showing a "gourd-shaped" layout with high on both sides and low on the middle. Asian countries belong to the lower protrusion of the gourd, European countries belong to the upper protrusion of the gourd, and the vast Central and West Asian countries in the middle of the Silk Road Economic Belt belong to the concave part of the middle of the gourd. In view of the fact that there are many bilateral manmade inefficiencies, in order to fully tap the potential of trade, it is recommended to actively promote the construction.

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# Research on the Application of Tourism Economics Teaching Reform in Application-Oriented Universities

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**Abstract**: Based on the construction goal of "thick foundation, strong skills and high quality" of the applied undergraduate college of Suzhou University, taking the teaching reform of tourism economics as an example, through the understanding of the content and characteristics of tourism economics, the exploration and research are carried out around the course orientation of "tourism economics", the role orientation of teachers and students in the teaching process, and the innovation of traditional teaching methods, According to the actual situation of the students in the universities of technology application and the needs of the cultivation of application-oriented talents, the corresponding countermeasures and suggestions are given from the aspects of teaching content system, classroom teaching methods and course assessment methods.

Keywords: Tourism Economics; Application-Oriention; Teaching Reform

### **1. INTRODUCTION**

Tourism is not only the product of tourism development, but also the driving force of tourism development. The world tourism industry has entered a period of stable development from its formation to development. The 21st century will be the second golden age of tourism. With the continuous development of the world economy, people's disposable income and leisure time continue to increase, coupled with the modernization of transportation, people's demand for tourism is unprecedented, and tourism consumption will become the third largest consumption after food and housing.

Tourism, as an important pillar industry in the tertiary industry, has become increasingly important in the national economy. In the world, tourism is becoming an important lifestyle and socio-economic activity in modern human society. We should adhere to the principle of facing the local, serving the region, and cultivating medium and senior tourism management talents with solid professional basic knowledge, good comprehensive practical ability, and strong innovation and entrepreneurship awareness.

However, there are many problems in the actual teaching practice of tourism economics. It is urgent to improve the teaching status of the course and improve the teaching quality of the course through the reform and practice of the course teaching.

The research content of tourism economics should first reveal the commercialization process and objective regularity of tourism activities in general, analyze the formation basis and conditions of tourism economy, and then expand the research content of tourism economics on this basis.

It is to study tourism activities from the perspective of economics, especially the commercialization of tourism activities, the composition, characteristics and internal interrelationship of tourism commodities, the realization of tourism economic activities and their benefits. A good textbook is the prerequisite for teaching a good course. At present, the construction of tourism economics textbooks has a large number and few high-quality products; Each system is different in difficulty and ease; The content is old and updated slowly.

# THE PROPOSED METHODOLOGY Thoughts on the Course Reform of Tourism Economics

The so-called application-oriented talents refer to a special type of talents who can apply professional knowledge and skills to the professional social practice they are engaged in. They are skilled in mastering the basic knowledge and skills at the front line of social production or social activities, and mainly engaged in the technology or professional talents at the front line of production. Considering many reasons, at present, there are very few teaching practices specialized in tourism economics courses in general undergraduate colleges.

But in fact, tourism economics relies on the support of many disciplines, such as economics, marketing, management, and so on; At the same time, its main content is to analyze the economic relations and laws behind the socialized and commercialized tourism economic activities by applying many relevant theories based on economic theories. It is an applied economics with strong practicality.

While fully implementing the requirements of higher education on students' academic standards, based on the construction goal of Suzhou University's application-oriented undergraduate college, we should pay attention to the cultivation of students' practical ability. By virtue of the design of teaching content and the introduction of classic cases, we should carry out teaching activities along the following two main lines:

First, based on the understanding of the content and characteristics of the tourism economics course, the teaching content should be reasonably arranged to help students master basic theoretical knowledge and promote the construction of their tourism theoretical system and the cultivation of theoretical literacy;

Second, in the teaching process, taking tourism activities as the research object, through collecting a large number of classic tourism economic cases. Cases are the bridge between abstract theory and objective reality. Case teaching method is a heuristic and discursive teaching mode, and an effective method to improve the teaching quality. Especially, the selection of cases is crucial for teachers to teach and analyze the concepts, principles and analysis methods of tourism economics.

# **2.2 Reform and Practice of Tourism Economics Teaching**

Through the practice of classroom teaching, we believe that a good tourism economics teaching case should have the following three characteristics: close to students, keep pace with the times, and never forget the classics. With the deepening of teaching reform, advocating student-centered and student-centered has become the mainstream; It is the trend of educational development to mobilize students' initiative, enthusiasm and creativity and stimulate students' internal learning motivation.

The orientation of teachers' roles determines the teaching objectives and methods, as well as the learning interests, methods and results of students. Considering the interdisciplinary and application-oriented nature of tourism economics, and giving full play to the good relationship between our college and Suzhou Tourism Administration, local well-known travel agency enterprises, and scenic spots (spots), in the future teaching practice, we will gradually implement the following teaching practice links according to the needs of the teaching content, And integrate into the performance assessment.

Teachers should fully realize the importance of tourism economics in the teaching of professional courses in application-oriented undergraduate colleges and universities, and need to flexibly use a variety of teaching methods to tap students' potential, stimulate students' thirst for knowledge, and enable them to generate constructive thinking sparks when encountering practical problems. Under the long-term influence of this teaching method, students have been fully expanded in terms of knowledge, ability and quality, and become qualified application-oriented talents in the integrated management and transnational management of tourism.

Macro part: tourism employment and income, tourism development strategy and international comparison, tourism economic impact and benefits. In actual teaching, efforts should be made to combine the integrity of the system with the focus of special lectures, the combination of theoretical teaching and case teaching, and the combination of classroom interactive teaching and extracurricular comprehensive practice. Tourism economics should be a course to display the world of tourism economy, quickly feed back the frontier information and hot issues of tourism development, and track the economic development of tourism industry.

#### 3. CONCLUSION

The paper puts forward some suggestions, such as according to the training objectives, determining the teaching content, mainly compiling textbooks, supplementing various textbooks, integrating special cases, increasing interactive discussions, increasing practice links, and integrating theory with practice. Timely update the professional training plan and teaching plan. Through this series of measures, it is beneficial to strengthen the cultural integration between schools and enterprises, so that the school can cultivate frontline talents meeting the market demand with quality and quantity, and promote the employment of students.

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### Design of Farm Livestock Manure Resource Management Platform Based on Intelligent Semantic Analysis of Real-Time Monitoring Images

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Abstract: With the rapid development of big data and 5G communication, the management of agricultural and livestock manure resources in rural areas has also embarked on a high-tech monitoring and platform design route. First, starting from the impact of pig manure on the environment, it analyzes how to use real-time monitoring images to semantically analyze the management and resource utilization of pig manure. According to the needs of building an intelligent behavior analysis system for agricultural storage ponds, first of all, establish a system that can not only express the purpose of use by farmers, but It can also express the direction of the construction of modern rural areas. Finally, based on the target positioning, identification and tracking in the dynamic scene, the deep processing and comprehensive development and utilization of feces are carried out, and the environmental management and resource development are combined. The results show that: from the current situation, the resource utilization of chicken manure mainly has two aspects, one is as feed, the other is as fertilizer; the resource utilization of pig manure and cow manure is suitable for chemical fertilizer utilization.

Keywords: Farm Livestock Manure, Resource Management Platform, Intelligent Semantic Analysis, Real-Time Monitoring Images

#### **1. INTRODUCTION**

The farm adopts the mechanical manure removal process. The livestock and poultry waste are scraped into the collection tank through the manure scraper, and then enters the self-built biogas plant. The biogas is fermented and processed by the biogas equipment [1]. The biogas is used for power generation. The biogas residue is dried and used as bedding. The liquid is used for returning to the field, and the livestock and poultry manure is zero-discharged. In the current field of aquaculture in my country, great attention is paid to the issue of aquaculture management [2], which is not only reflected in scientific feed management and disease prevention, but also in strengthening the hygiene management of aquaculture, which has the characteristics of comprehensive nutrition, long fertilizer efficiency, and easy absorption by crops. It has significant effects on improving crop yield, quality, disease prevention and stress resistance, and soil improvement [3].

Today, when more and more attention is paid to sustainable development, the first task is to update the concept of the whole society. In the process of pig breeding, many large-scale farms use advanced technology to process pig manure [4]. Image semantic segmentation refers to the Image segmentation technology that classifies the semantic content expressed by each pixel in the image [5]. The key technology of intelligent video surveillance focuses on the analysis and processing of video content. At present, in most cases, the monitoring system only acts as a video recording function, and after an abnormal event occurs, it is replayed for manual analysis [6].

Used by video surveillance cameras. In particular, the DAVINCI dual-core architecture DSP chip launched by TI (Texas Instrument) in the United States can not only meet the basic functions of video data encoding and compression in video surveillance systems [7], web server embedding, etc. With the development, the number of ATM automatic teller

machines is increasing, which not only facilitates people's work and activates the financial market, but also brings more and more criminal cases [8], including peeping passwords, installing external card swallowing devices, using plastic sheets animal husbandry is the leading industry for farmers in Yichang City to increase their income and become rich [9]. The main leaders of Yichang Municipal Party Committee and Municipal Government attach great importance to the resource utilization of livestock and poultry breeding waste [10].

One of the most basic techniques for video content analysis is the foreground object segmentation of video and key frame images [11]. Current interactive video and image set segmentation algorithms greatly simplify the task of image object foreground segmentation. However, the previous interactive video and image set segmentation algorithms generally only involve the operation of a single image or a single video sequence. First, heavy metal pollution [12].

Under the background of the rapid development of the breeding industry, my country's feed production and processing industry has also been well developed, so as to meet the various nutrient needs of pigs [13]. However, some pig feeds contain copper, iron, zinc and other metal elements exceeding the standard Situation. To strengthen people's understanding of the resource utilization of agricultural waste [14], due to the poor scene understanding and work efficiency of traditional semantic segmentation methods in unstructured complex environments, the problem of semantic segmentation for complex environments has become a research hotspot in recent years. Fully recognize the economic, environmental and social value of comprehensive utilization of agricultural waste [15].

Recognizing that the resource utilization of agricultural waste is an important aspect of sustainable development. Break through the traditional concepts of resources and waste. Among them, "intelligence" refers to the automatic identification and tracking of scenes, pedestrians [16], vehicles and other targets through multiple network cameras, and identification and extraction of complex behaviors and events from massive video recordings. Decision makers use and query [17]. In the mid-1980s, the birth of analog optical transceivers and the practical application of optical fibers made high-quality, long-distance video signal transmission a reality. At the same time, analog video signals can also be wirelessly transmitted by carrying high-frequency microwaves [18].

#### 2. THE PROPOSED METHODOLOGY 2.1 The Intelligent Semantic Analysis of

### Real-Time Monitoring Images

The effect of image semantic segmentation is directly related to the accuracy of the unmanned system's understanding of the scene. At present, deep learning technology has made gratifying progress in the field of image semantic segmentation, but the complex environment is unstructured, so a key technology to establish an intelligent behavior recognition and analysis system is to integrate semantic and statistical information. DirectShow-based video data collection and playback. Firstly, the construction of Filter Graph for video capture is mainly introduced, and the opensource video compression Filter is used for MPEG in DirectShow.

Visual perception processing is at the underlying feature layer, which mainly refers to the extraction of underlying features of some concerned objects, such as color, shape, texture, and spatial location information. This paper studies the all-round intelligent monitoring of ATM machines. The research scenario is the surrounding environment of the ATM machine. Secondly, it introduces the operation of video playback on video streams: pause, play, capture and save images. Semantic information means that the system must provide a visual It uses a set of graphical semantic symbols to express the user according to different scenarios. In essence, we create spatiotemporal lens graphs to represent multi-view video. This representation takes into account the relationship between multi-view videos. Event-centered clusters are obtained through random walk and multi-objective optimization algorithms. These clusters finally form multiview summary results. The adaptability to illumination and seasonal changes in complex environments is not strong, and the robustness is poor.

#### **2.2 The Resource Utilization of Livestock** Manure in Farms

Pig manure is mainly due to the high-water content, so it is difficult to handle. In the process of resource utilization, a sewage fertilizer model can be created to solve the problem of difficult governance. At present, this method is widely used in many areas. been promoted.

It can be seen that the AND or graph actually defines a random context-dependent grammar, which is used to represent the image grammar, where VT is its dictionary, and VN represents its generation rules. The video surveillance system will generate massive video data, which requires a lot of storage media to save data, in order to save costs, it is very necessary to adopt video encoding for video data, so in this paper, the MPEG-4 encoding algorithm in DivX is used. Withdrawal status and withdrawal status are identified based on the selection of identification points, distance changes and face circumference changes. It has innovatively promoted three major technology models for resource utilization of livestock and poultry manure, including the sewage and fertilizer utilization mode of full-volume collection and treatment and returning to the field nearby, the specialized energy utilization mode of manure combined with agriculture and animal husbandry, and the biological fermentation bed mode. It is guaranteed that each farm can find its own "one policy, one policy" governance model. Specifically, anaerobic fermentation of biogas can be achieved after using the sewage discharge mode that meets the standard, and then it can be directly used in the fertilization of farmland and irrigation of farmland, so as to achieve the goal of fertilizer and water resources. After the chicken manure is dried at high temperature, it can not only achieve the required moisture, but also achieve the purpose of disinfection, sterilization and deodorization.

The content of harmful substances leads and arsenic in the dried chicken manure is 25mg/kg and 8mg/kg respectively, which is less than the international regulation and no more than 30mg/kg. The traditional image semantic segmentation method uses shallow visual features to segment the image target, and then uses manual annotation. semantic information to complete image understanding tasks. For the video on the left in the figure, identify and track the objects of interest (pedestrians, vehicles), so that in the (x, y, t) coordinate system, the corresponding motion trajectory can be obtained to compact the leadership responsibility of the government's territorial organization, establish a territorial responsibility system with overall coordination at the municipal level, counties as the main body, and township governments organized and implemented. Consolidate the responsibilities of departmental supervision services, cooperate closely with the Yichang Ecological Environment Bureau, implement the linkage of law enforcement supervision and technical guidance services, and jointly promote the orderly progress of the work.

# **2.3** The Design of Livestock Manure Resource Management Platform

ow to accurately achieve target semantic segmentation in complex environments is the focus and difficulty of current research. The FCN model initially achieved pixel-level semantic segmentation, pushing the accuracy of image semantic segmentation to a new height, which is one of the landmark achievements in this direction, and provides the possibility for accurate semantic segmentation in complex environments. The system enumerates the attributes of the camera, including DisplayName, FriendlyName, DevicePath, etc.

In this application, the attribute FriendlyName is specially displayed in an edit box control, and the system can automatically create a SourceFilter for video capture. Secondly, use the change of the distance between the human body and the ODVS and the change of the circumference of the face to confirm the i process, the state of withdrawing money is a process of reducing the distance and the perimeter of the face becoming larger, and the state of withdrawing money is a process of no obvious distance change and the perimeter of the face is basically unchanged. Provincial project funds are 263 million yuan. The municipal finance department allocates 5 million yuan each year to support the resource utilization of livestock and poultry breeding waste. Give full play to the guiding role of inclusive finance in animal husbandry to increase credit, and give priority to supporting loan projects for resource utilization of livestock and poultry waste.

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#### 3. CONCLUSIONS

This paper mainly expounds image semantic segmentation methods for complex environments, introduces the challenges faced by semantic segmentation tasks in complex environments, as well as traditional image semantic segmentation methods and deep learning-based semantic segmentation methods. In the future, it is necessary to innovate the planting model and strengthen the system build and develop manure treatment technology, rationally distribute planting and breeding models, and strengthen technology promotion, so as to reduce the damage to the ecological environment and realize the rational use of resources. In addition, various regions also need to formulate special subsidy measures. Establish a unified knowledge expression and model that can express both high-level user semantics and ever-changing scene and object statistical information, and use machine learning methods to improve this unified model. Structure and Parameters.

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### Study on Environmental Cost Control in Pig Scale Breeding

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**Abstract**: The cost of pig breeding enterprises in China remains high and the benefits are declining. How to reduce costs and increase efficiency is an important practical problem faced by pig breeding enterprises at present. This paper takes New Hope Group as the research object, based on its aquaculture management model and financial data, deeply reveals the problems in its large-scale aquaculture management and cost control, and defines the connotation and objectives of environmental cost control of aquaculture enterprises from the perspective of changing the engineering construction model; Secondly, it analyzes the current situation and problems of environmental costs in pig farms; Then put forward the optimization plan of environmental cost in three stages, namely, before, during and after the event. Finally, using the method of combining theory with practice, put forward that enterprises should build an environmental cost control system and supporting measures for the return of manure to farmland.

Keywords: Environmental Cost ; Cost Control; Pig Scale Breeding

#### **1. INTRODUCTION**

Livestock and poultry breeding industry is a traditional pillar industry in China, which plays an important role in promoting farmers' income and improving China's economic development level. With the continuous development of market economy, China's livestock and poultry breeding industry is in the critical period of continuous adjustment and optimization of industrial structure, and the development of pig scale breeding has become the main direction of China's livestock and poultry breeding industry. However, in the process of pig breeding, pig farmers often fall into difficulties due to the lack of relevant management experience and correct theoretical guidance.

Considering that New Hope Group is a leading enterprise in pig large-scale breeding and a representative enterprise that urgently needs to reverse the situation of "high cost and low benefit" at this stage, this paper takes the Group as the research object, analyzes the problems and factors that need to be focused on in the process of large-scale breeding management and cost control through in-depth analysis of the current situation of pig breeding management and cost control of the Group Environmental cost control refers to the analysis of environmental costs, and the control and optimization of factors affecting environmental costs by means of environmental cost control, so as to achieve the effect of reducing environmental costs and improving social benefits of enterprises.

Controlling the environmental costs of enterprises not only improves the economic benefits of enterprises, promotes the sustainable development of enterprises, but also improves the overall social benefits and improves the environment. The main purpose of pig farmers to raise pigs on a large scale is to obtain the maximum profit as much as possible. Therefore, finding the way to obtain the maximum profit is the first consideration of the farmers. On the basis of the constant level of pig breeding and market demand, the selling time of pigs is the biggest factor affecting the profit of pigs. With the growth of pigs, the feed consumption is also rising, and the unit weight of pigs is rising, but the sales price will not increase with the increase of weight.

Pig breeding industry chain is shown below (Inage from public resources).

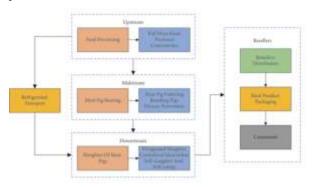


Table. 1 Pig breeding industry chain.

### THE PROPOSED METHODOLOGY Estimation of environmental cost of large-scale pig breeding

The increase in management costs may be closely related to the development goals of New Hope Group. At present, there is a large gap between the actual sales volume of the Group and the target value. In order to improve the level of selfproduced sales, the level of management investment has been increased. However, in recent years, the market situation of the pig breeding industry is relatively severe. New Hope Group urgently needs to change its management mode and reduce management costs. The increase in financial expenses may be related to the new "company+family farm" model implemented by the Group. Under the new model, the company's investment proportion increases, and the capital operation leads to an increase in financial expenses. The limited land consumption will affect the way and utilization rate of manure resources: (1) Excrement recycling is the most effective way to save environmental costs, but it requires a certain amount of land. At present, there is not enough land to absorb is a problem that restricts the development of excrement recycling and animal husbandry. Under the condition that the land is also very expensive, if the supporting land for self-cultivation is not enough, it will affect the way and utilization rate of fecal waste and increase the environmental cost.

(2) The production of pork generally goes through a long production cycle. It takes half a year or even a year from piglets to live pigs. The production of pork is often affected by breeding costs, inflation, supply-demand relationship and epidemic factors.

Due to the large-scale breeding of pigs in China and the emergence of market information asymmetry, the fluctuation of pork prices in the market and the enthusiasm of pig farmers will be seriously affected. The project construction mode reduces the operating efficiency. Based on the "settlement" management mode, New Hope Group has adopted the "trilateral engineering method", that is, while developing, while building, and while entering pigs. However, in the large-scale promotion, the simultaneous implementation of the three stages has not only affected the construction progress, but also caused interference to the growth environment of pigs. The outstanding performance is that the success rate of breeding and breeding in the breeding and breeding farm has declined during the transformation of the fattening farm project The biological treatment technology of anaerobic-aerobic combined treatment is adopted for the integrated agricultural utilization of liquid manure, water and fertilizer.

# **2.2** Safeguard measures for environmental cost control of aquaculture enterprises

Single anaerobic or aerobic treatment can not achieve the standard discharge of pig breeding sewage, which greatly increases the environmental costs of sewage treatment. The anaerobic-aerobic combined treatment method not only overcomes the disadvantages of large energy consumption and large floor area of aerobic treatment, but also overcomes the defects of anaerobic treatment that can not meet the requirements. It has the advantages of low investment, low operating cost, good purification effect, high comprehensive energy and environmental benefits, and is particularly suitable for the treatment of sewage from standardized livestock and poultry farms. On the one hand, it can effectively control the pollution, on the other hand, it can improve the utilization rate of livestock and poultry breeding waste.

To improve the level of breeding plays a certain role in controlling the environmental costs of enterprises. Since the development of market economy, the fluctuation of pork price in China has obvious cyclical characteristics, which is manifested in the change trend of "low in the middle and high in both ends". When the pork price rises, the supply of live pigs will increase, resulting in the rapid decline of pork price; When the price of pork falls, the supply of live pigs decreases, resulting in a rapid rise in the price of pork.

The utilization rate of fattening farms is low, and the proportion of live pigs is high. Due to the group's early pursuit of scale expansion, the development and construction progress of the pig farm site is too fast. In addition, due to factors such as the low breeding and fertility rate of the group, the pig farm construction and production capacity do not match, and the new fattening farms are not fully put into use, resulting in an increase in the input-output ratio. At the same time, at present, more than half of the group's pigs are raised by large-scale farmers, and the average cost of raising pigs is significantly higher than the cost of self-raising pigs, which has increased the unit operating cost to a certain extent.

#### 3. CONCLUSION

The breeding enterprises should negotiate with the surrounding village committees and towns to obtain supporting land, coordinate the development of the company's pig breeding industry with the development of the local planting industry, and promote the integration of breeding and breeding from a regional perspective, which not only solves the problem of the company's pig manure, improves the utilization rate of manure resources, and reduces the impact of uncertainty factors on the generation of farmers. Third, reasonably plan the space of pig farm. For the space that is not fully utilized, it is possible to consider planting additives with higher cost in feed matching or crops that can help purify the air, so as to reduce the cost of purchased feed additives while regulating the environment of the pig farm.

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### Influence of Cultural Differences on Word Meaning and Semantic Comprehension in English-Chinese Translation

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Abstract: In this study, we conduct the in-depth analysis of influence of cultural differences on the word meaning and semantic comprehension in English-Chinese translation. Translation is a speech activity that re-expresses what is expressed in the first language (source language) in a second language (target language), hence, the consideration of the cultural issues will be essential. In the process of English-Chinese translation, the application of form and meaning in English and Chinese is not absolutely separated, that is, Chinese is not only expressed in terms of meaning and English is not only expressed in form. We provide the novel suggestions for the translation methods considering the culture which will guide the translation performance.

Keywords: English-Chinese Translation; Semantic Comprehension; Word Meaning; Cultural Differences

#### **1. INTRODUCTION**

Language is the carrier of culture and an important part of culture. There is a close relationship between culture and also language. Culture contains language and affects language, and language is an indispensable tool for preserving the culture, exchanging culture and reflecting the culture, specially, the translation will be the essential aspect.

People and society themselves are the crystallization of the culture, and language is the most important cultural carrier, language is an important form of social culture, language reflects the nation's thinking, beliefs, emotions and many of other aspects. For the culture perspective, we should consider the listed aspects.

(1) To translate is to have something to rely on, to have a basis, in other words, to rely on the original, and to use the original as the basis for translation. The dependence of the translation is not to make the zeer a slave to the original, but to make him a creator who reproduces the artistic reality of the original document.

(2) Artistry is the fundamental characteristic of the literary translation and the fundamental difference between it and other types of translation. Therefore, as long as it is a literary work, it must have its artistry.

(3) The way of thinking in English culture is detailed analysis, which is mainly manifested in the fact that people in Englishspeaking countries pay attention to the independent role of the individual components and the relationship between mutual knowledge, emphasizing formal analysis and rule constraints.

According to the above statement, we can understand that culture is the basic beliefs and value judgments formed by people in a certain society through long-term common life, as well as the resulting normative system of the thoughts and behaviors, including those generated by these thoughts and behaviors as the result of understanding. Due to the different living environments and the different paths of the historical development, different human collectives have then generated different value standards and behaviors, which constitute the rich and the colorful world of our human beings today. The details will be discussed in the next section and in the figure 1, the English-Chinese Translation Tool (Google) is shown.

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Figure. 1 The English-Chinese Translation Tool (Google)

### THE PROPOSED METHODOLOGY The Cultural Differences on Word Meaning and Semantic Comprehension

How to convey the meaning and show the cultural origin and cultural color of the original text in the process of translation, especially the cultural values implied in the source language, this is a problem. Different nations have different histories and social ideologies. Different historical and social heritages have created different historical cultures. People's emotions, thinking, customs, etc. are also different.

An important content of the historical culture is reflected in historical allusions. Historical allusions are treasures in the national history and culture, which have a strong national color and distinct cultural personality.

It contains rich historical and the cultural information and can best reflect the characteristics of different cultures. In the same way, the translator can use different methods and follow various principles. On the basis of fully understanding the original text, according to the context, the translator does not stick to the original text, obeys the cultural habits of the target readers, and makes them willing to accept it. . It can also fully reflect the style and culture of the original work from the perspective of readers' appreciation of the foreign cultures, allowing readers to understand the customs of the foreign countries. As an important component of cultural structure, language carries a lot of information. So when one language communicates with another, what is actually happening is an exchange between cultures. When communicating, language and language are not directly connected, and translation must be used. Therefore, the task of translation is essentially to realize the communication between the different cultures. Therefore, the investigation of the translation should also be carried out in the context of culture.

## **2.2** The Suggestions for English-Chinese Translation

Translation is an expressive process in which the author puts his intentions unambiguously into the work for others to read. From the perspective of the translator, translation is also a process of the reasoning. Inference means that the translator infers the implicit intention of the author's utterance from the information provided by the author of the original text by explicit means. Therefore, when doing the English-Chinese translation, especially the Chinese translation of English long sentences. Many difficulties and also problems may be encountered. In order to achieve the purpose in the English-Chinese translation, even to obtain excellent results, some specific skills are required. In the last section, the cultural skill is considered as the basis.

The logical relationship and expression in English long sentences are the same as those in Chinese, that is, the series of behaviors described in English long sentences basically occur in the chronological order. Sometimes, the content expressions in some long English sentences are connected together according to the logical relationship between the internal components of the sentence, which is consistent with the expression habits of Chinese, hence, we then have the following suggestions.

(1) The shared cognitive context between the translator and the target text reader provides a possible guarantee for the successful transmission of the source text author's intention. The form of the expression in the language chosen by the translator is based to a certain extent on his assumptions and intuitions about the readers of the target text.

(2) The translation must be very conscious to reflect the characteristics of the target language, that is, Chinese. Only by translating in this way, the translation will not make readers feel the taste of translation, and it also greatly improves the readability of the translation.

(3) English attaches great importance to hypotaxis. Hypotaxis and linking elements with real meaning can not be omitted in general. Sentence group combination emphasizes interlink and tightness. The formal structure is very clear, which can better show the logical relationship contained in the original text.

#### 3. CONCLUSIONS

In this paper, we conduct the in-depth analysis of influence of cultural differences on the word meaning and the semantic comprehension in English-Chinese translation. In the specific practice of English-Chinese translation, it does not mean that English-Chinese translation must be fully expressed in a syntactic form, and Chinese-English translation must be fully expressed in a syntactic form. Instead, it should be analyzed according to the actual situation of the statement itself, and used flexibly. This paper gives the novel suggestions for the translation applications.

#### 4. ACKNOWLEDGEMENT

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### Multi-Terminal Platform for Blended Training of English Micro-Lectures Under the Trend of Smart Guiding Data and Online Integration

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Abstract: This paper proposes a software development system and method for multi-terminal embedded platform, which effectively integrates the development environment of each terminal embedded platform into a unified platform. The emergence of a large number of micro-lectures has provided a large number of high-quality resources for the classroom teaching practice of the blended teaching mode. Taking the teaching of industrial English courses as an example, this paper conducts practical research on the blended teaching mode based on micro-course resources. Users can easily develop applications based on various platforms without installing various cumbersome development environments and configuring terminal platforms on the local computer. A hybrid teaching mode framework is designed, and an evaluation method is proposed. Teaching practice shows that the use of blended teaching mode enhances the teaching effect, and it is worth popularizing in the basic computer courses of colleges and universities.

Keywords: Multi-Terminal Platform, Blended Teaching, English Micro-Lectures, Smart Education Data and Online Integration

#### **1. INTRODUCTION**

With the continuous development of today's terminals, there are various terminal platforms currently on the market, and application development environments based on various terminal platforms are different, which causes great trouble for developers [1]. Therefore, it has advantages and characteristics that go beyond other single teaching and learning methods. Blended teaching is also leading the way in education.

The micro-course resources endow the blended English classroom with a large number of high-quality resources and a rich teaching environment [2]. The inorganic and analytical chemistry course group that the author belongs to has started from the autumn semester of 2018-2019 [3]. The "computer basic course" in colleges and universities is responsible for the computer system, The important tasks of knowledge education such as commonly used operating systems, office automation, computer networks and applications, multimedia technology and software engineering, lay a solid foundation for the study of subsequent basic computer courses [4]. It tried to adopt the "five-in-one" blended teaching mode that organically integrates "online, offline, theory, practice, ideology and politics", and adopted this teaching mode for students from three majors in our school, including environmental science and engineering [5].

The application of micro-lectures in English teaching and the development of online and offline mixed teaching will help to expand and improve the existing higher vocational English teaching system [6], and also help to stimulate students' learning motivation, enhance their enthusiasm for learning, and achieve good teaching results. In this way, a new blueprint of "5G + smart education" is outlined [7], which not only provides a feasible path for solving the current dilemma of online learning, but also injects strong vitality into the road of education informatization with Chinese characteristics; big data-related technologies have been extremely effective. big development. Google's big data processing and storage

technology Map Reduce [8] and GFS (go091e file system) L 2.

The industry-respected top-level Apache project Hadoop, the rapidly emerging NoSQL database technology, and the deep learning proposed by Professor Hinton [9] have all become current research hotspots. The existing research literature on smart education pays more attention to the concept of traceability, mining content, extracting features and creating models [10]. There are few researches on new information technology in smart education system and technology integration, and the technological drive of smart features. The "12015" plan launched by Singapore, relying on the smart education system, enables its citizens to carry out high-quality personalized learning, maintains the competitiveness of individuals and even the entire country through lifelong learning, and raises smart education to the height of national competition [11].

It can be developed for different terminals at the same time, which simplifies the steps that developers need to build a development environment in the early stage of development [12]. On the basis of a new teaching method, micro-lectures need to rely on information network technology, which can give students a new teaching enjoyment in teaching. On the other hand, it can realize centralized development on the development platform [13], which is convenient for collaborative development Meet the needs of the existing Devops development model. Inorganic and analytical chemistry is a compulsory basic course offered by the three majors of environmental science and engineering, environmental equipment engineering and materials science and engineering in our college [14].

The single traditional teaching mode of "teacher tells students to listen" certainly has its own advantages. With the rapid development of information technology, the combination of traditional teaching and MOOC micro-lecture teaching enables them to complement each other's advantages, that is, to play the leading role of teachers, and fully reflect the main body status of students [15]. Reading and other resources are lacking, and students do not have enough practice in speaking and writing, and the learning effect cannot achieve the desired effect. Many college students have studied general English for at least one year in college [16].

It can better mobilize students' initiative, enthusiasm and initiative in learning, and further improve students' selflearning ability and innovation ability. This is because the function and role of teachers for students cannot be replaced by technology [17]. Teachers are always the first resource of the education system and the only source for students to receive education with "warm". However, how to organically integrate multi-source scattered data and effectively realize data sharing and fusion of different data sources has not been truly solved.

#### 2. THE PROPOSED METHODOLOGY

# 2.1 The Smart Education Data And Online Integration Trend

Blended teaching is a compromise that combines the advantages of traditional classroom teaching and pure eteaching. The teaching content is fragmented, and each unit is divided into several knowledge points, and each knowledge point has been optimized in detail whether it is placed in online student self-learning or offline flipped classroom teaching. Blended teaching is inseparable from abundant learning resources. The author has compiled a large number of online and offline test questions for each knowledge point. The definition of blended teaching is currently based on the opinion of a famous domestic scholar, Professor He Kekang of Beijing Normal University. The teaching content cannot be updated in a timely manner, and the main teaching method in the classroom is "teacher lectures", which lacks teacher-student interaction.

With the rapid development of information technology, the combination of traditional teaching and MOOC micro-lecture teaching enables them to complement each other's advantages, that is, to play the leading role of teachers. The application of micro-lectures to workplace English blended teaching has the following advantages: First, micro-lectures It is applied to workplace English teaching to create a more authentic language learning environment for English learners. The traditional higher vocational English teaching cannot guarantee the real language environment, so researchers carry out research from the perspective of teacher literacy. The teaching activities in the smart education environment generate massive data, and the ability to transform different types of data into teaching strategies that meet the individual needs of students is the data literacy of teachers.

In recent years, informatization education has made great progress. Under the influence of cloud computing, Internet of Things, artificial intelligence, virtual reality, augmented reality and other technologies, intelligent information technology and education interact and gradually integrate, gradually giving birth to intelligence and perception. As an important part of blended teaching, micro-course resource participation in teaching has its advantages over traditional classroom teaching, but teachers should correctly view and handle micro-course resources. A MOOC may have only a few teachers but tens of thousands of learners. The large-scale characteristics of MOOCs make it impossible for teachers to mark homework and test questions by themselves. For objective questions, you can use the automatic evaluation system, and for subjective questions, you can use the studentstudent evaluation system

#### 2.2 The Mixed Teaching of English Micro-Courses Under the Trend of Online Integration

Language is constantly evolving, and there may be differences between the knowledge points covered in textbooks and the application of language in real environments. Teachers create a language environment and atmosphere according to the characteristics of learners through online and offline hybrid teaching, so as to truly achieve spatial education; and more comprehensively and extensively collect the learning data of teachers and students in the learning process, including classroom learning data, class Offline learning records, online learning data, and offline learning traces. The idea of the Semantic Web proposed in the literature [5] is a vision for the future Internet, which realizes the Web of data by providing a unified data description on the Internet. The W3C describes the Semantic Web as allowing people to create and store data on the web.

Processes and functional technology modules together form a complex ecosystem with mutual feedback. The ecosystem consists of smart learning with learners as the main body, smart teaching with teachers as the main body, and smart education resources and technical environment from the perspective of developers (smart education cloud). The "subject-object-subject" of educational activities In the structure, the educator and the educated, as two subjects, are their own in educational activities, but the objects are acted by intermediaries other than education, such as language, media, and environment. These intermediaries are indispensable in educational activities and realize certain way of education. Smart education resources and technical environment from the perspective of developers (Smart Education Cloud). It can be decomposed into three modules: learning resource module, tool platform and environment module, and intelligent service module. First of all, students' willingness to take classes is not strong.

Many students come to class because they are afraid of being called by the teacher. Teachers will deduct the corresponding grades for students who skip class and are late to ensure class attendance. Second, the course content is monotonous. Before class, teachers design the online teaching tasks of the unit according to the teaching content of the unit, make microclass videos and related online learning resources in advance, and upload them to the public teaching resource library platform of the college. Students learn through the computer or mobile phone APP "Deshi E-learning". Teacher support service is also the epitome of social support in the field of education, which is reflected in teachers providing appropriate explanations in the teaching process, making constructive responses to mistakes, and helping teachers and students Care and respect for students in the process of interaction. Data publishers in Linked Data publish data just like building ordinary websites. Each publisher is responsible for data maintenance, data connection and data access control.

#### 2.3 The Research And Development of Multi-Terminal Platform for Micro-Course Blended Teaching

In view of the current situation that the teaching effect of basic computer courses is not ideal, it is necessary to develop a hybrid teaching reform based on MOOCs and micro-courses for basic computer courses. First of all, blended teaching emphasizes the student-centered teaching concept. Students learn independently through the network platform and plan their learning time according to their own situation. In the information age, the society requires students to master book knowledge, but also Master more extracurricular knowledge. The participation of modern educational technology helps to expand classroom teaching capacity and improve teaching efficiency.

The demonstration of modern media in the classroom can quickly and intuitively present the teaching content, and the reasonable arrangement of PPT makes the teaching ideas clearly displayed. In modern society, science and technology follow the path of rationalism, and the development is like a broken bamboo. Following rationalism's own logical deduction, it can promote the progress of technology itself to the greatest extent, but outside the technology itself, for the analysis of the connotation of teacher support services, Tardy believes that teacher support includes information support, tool support, emotional support based on social support theory.

#### 3. CONCLUSIONS

The industry English blended teaching based on micro-course resources is not an alternative to traditional teaching, but is constantly colliding with traditional teaching and gradually integrating, and constantly supplementing and improving the teaching method system under the environment of information technology that is effective and feasible in practice. This model is a teaching model suitable for higher vocational students. The blended teaching mode is an effective supplement to the traditional English classroom teaching mode. In addition, the platform can also assist users to analyze the problems existing in the program and manage the source code version during the development process, which greatly improves the efficiency of software development.

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### Online System QoS Enhancement of Flipped Classroom for Intelligent Manufacturing Specialty Based on Intelligent Information Platform

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Abstract: In-depth analysis of the online teaching mode of the "Machine Vision and Inspection" course of the intelligent manufacturing major, and research on the teaching work of the machine vision and inspection course from the teaching objectives and positioning and the key content of the course. And in our school network engineering major Corresponding experiments were carried out. The pilot results show that, for ordinary colleges and universities aiming at cultivating applied talents, the characteristic reform of the original network engineering-related majors can effectively meet the local demand for talents in this field. It is an end-to-end QoS monitoring solution that combines deployment and centralized management.

Keywords: Online System QoS Enhancement, Flipped Classroom, Intelligent Manufacturing Specialty, Intelligent Information Platform

#### **1. INTRODUCTION**

During the epidemic, in the face of the new situation, the teaching method was adjusted to realize "suspended classes and non-stop learning", to ensure students' learning efficiency, and to explore and think about the online teaching mode of machine vision and inspection courses. Effective integration, improve teaching effect. Professional characteristics, and actively adapt to the needs of local economic development for the professional talents. On the basis of in-depth research, combined with the school's experience in running a school, it is clear that the professional orientation is to rely on Hefei College, based in Anhui, and facing the whole country, to cultivate computer engineering applied talents with wide adaptability, strong practical ability, innovative thinking and professionalism.

Reference [1] Aiming at the network quality problem when the system is laid on the basis of the existing metropolitan area network, a solution based on the network model is proposed, which can guarantee the service quality of the system on the basis of little impact on the traditional business. There are currently two bandwidth allocation algorithms: Dynamic Bandwidth Allocation (DBA) and Static Bandwidth Allocation [2] The automated production line course is a comprehensive practical course for related majors such as electrical automation, mechatronics and industrial process automation, [3] Learning in professional knowledge The intelligent information platform is the main information platform of ITS, and it is the core hub of traffic management information transmission. Almost all traffic management information must be processed and forwarded through this platform. Therefore, the stability and efficiency of this information platform is the key to the success of the entire system.

[4] The functional requirements of the intelligent information platform will be analyzed in detail below. According to the middle-level mechanism of the broadband wireless access standard, a scheduling structure combined with the wireless channel state is proposed in the literature, and the scheduling strategy under this structure and the corresponding structure are analyzed. The designed scheduling algorithm model. Thus, plug and play of ONU is supported. The ranging of the EPON is initiated and completed by the OLT through time stamping while monitoring the ONU's plug and play [5].

Accurately measure the distance from each ONU to the OLT and accurately adjust the ONU's sending delay [6]. Students can communicate and interact with the instructor better. They need to have a high degree of concentration and participation. Otherwise, they cannot complete classroom exercises in real time [7]. If you don't understand the homework [8], you can deepen your understanding of the knowledge points by watching the replay of Tencent Classroom. The guiding ideology and basic ideas of professional construction are under the background of vigorously developing fine chemical industry in Liaoning Province [9] and the basic situation of key industrial clusters in Liaoning Province.

Guided by the spirit of the relevant documents of the Ministry of Education's discipline construction and professional construction, adhere to the people-oriented and continuous reform. Through the intelligent information platform, all illegal vehicles can be monitored in real time. After a frontend system in a city finds the license plates of illegal vehicles [10], the license plate will be sent to the command center for comparison. If the relevant records of the vehicle are confirmed, the front-end system will be notified to start processing, and the commander can find the nearest law enforcement officer through the electronic map [11]. Acts of defaulting electricity use, such as moving and operating power supply equipment, will cause short-circuit, tripping and other faults, which will lead to casualties in serious cases, and can easily cause power supply interruptions, affecting the electricity demand of other electricity customers.

is defined as ` in one. The overall subjective acceptability of the application or service used by the end user", it can be seen that the end user's service usage experience is more emphasized. The use of upper-layer protocols cannot solve the service differentiation and delay control of the data link layer in EPON. Therefore, It is an essential function of EPON to support the differentiation of business levels to ensure different levels of service quality [12]. An overview of machine vision and detection technology, 2 class hours, introduced machine vision through case analysis of the application of machine vision and detection technology in various industrial neighborhoods in [13], the media streaming indicator is considered as a simple and extensible standard to evaluate the impact of the transmission network on the quality of video and end-user experience.

#### 2. THE PROPOSED METHODOLOGY

#### 2.1 The Intelligent Information Platform

It is composed of two parameters, the delay parameter and the media loss rate. The composition of elements. Literature [14] based on the analysis of the nature of the chaotic change of network traffic, evaluated the network traffic using the chaotic prediction method. The ranging of EPON is initiated and monitored by the OLT through the time stamp while monitoring the plug and play of the ONU. Complete [15]. Accurately measure the distance from each ONU to the OLT and accurately adjust the ONU sending delay.

Among them, R is the interpolation function, and R is the value of the function f(x, y, z) at the node.

Software platform introduction and image processing operator analysis, 26 class hours, using LabVIEW platform for software programming platform, focusing on Visual Assistant2014 visual software, through operator analysis, case explanation, students [16] can complete their homework by themselves. Significant achievements have been made in the construction of practical training and teaching equipment. However, since many higher vocational colleges were upgraded from secondary vocational colleges [17], the "splicing" of the actual training and teaching system is very serious and lacks a systematic approach. ITS is a large and complex system. The system involves multiple subsystems and multiple front-end devices [18].

It is quite complicated to make this system work correctly and in an orderly manner. Therefore, this system must have the ability of self-detection and recovery of faults. When a system problem occurs, it must be able to quickly locate the location of the fault. find out the solution to the fault. The orthogonal table is the analysis table that records the orthogonal test design scheme and test results in detail. Generally, it contains the following three characteristics: the number of different numbers in each column appears equal. Small and micro logistics enterprises are developing rapidly, but the overall logistics technology is still backward and the level of informatization is low. Most small and micro logistics enterprises rely on manual operations and do not have the ability to use modern information technology to process logistics information.

The rapid development of the Internet. The rapid development of the informatization level of ship equipment has brought convenience to the crew's work, and also generated a large amount of perception data. Massive sensory data has the characteristics of large data scale, heterogeneous data formats, and diverse data sources.

#### 2.2 The Intelligent Manufacturing Professional Flipped Classroom

With the introduction of cognitive decision-making functions, the data processing process becomes more and more complex. Basic image processing functions: including histogram, line profile, measurement, 3DView, brightness and contrast adjustment, establishing coordinate system, image mask, geometric transformation, image cache, image acquisition, image calibration, image calibration, image identification, etc.

Since many higher vocational colleges were upgraded from secondary vocational colleges, after the upgrade, there were more teachers of basic courses. In order to take care of the original teachers of basic courses, practical training was carried out at a later stage, which separated the teaching of professional courses. Public security traffic management the department obtains information on new roads from relevant departments, and designs, constructs and installs signs and markings and traffic control equipment in a timely manner.

# **2.3** The Online System QoS Enhancement of Flipped Classroom

It obtains road construction information, major event information, and service information from relevant departments, and formulates corresponding traffic control measures and traffic control plans in a timely manner. The value in the orthogonal table is directly brought into the equation of the mathematical model to solve the stress of each stage of the unbalanced tension in the ice-covered state, and the corresponding stress difference in the adjacent two stages is the unbalanced tension percentage. Professional characteristics, based on network communication technology and computer technology, highlighting the cultivation of interdisciplinary comprehensive technologies such as industrial control networks, wireless sensor networks and the Internet of Things, so that students trained in this major not only have the ability to design commercial network application systems and network engineering.

The packet classification feature enables network managers to formulate policies for dividing network traffic into several priority or service levels. The network manager can define six levels by using three priority bits in the service type information field of the packet header. There is no cache management in the figure, in fact this step is done before all QoS work. After the cache management sets the number and size of ONU queues, priority mapping and queue scheduling can be performed. Employment prospects: Keep up with national development and talent demand orientation (in the next five to ten years, there will be a huge demand for talents in ubiquitous network construction for industry and commerce, and there is currently a shortage of talents in this area).

The accuracy and security of freight information are not high, causing serious losses to enterprises and individuals. The freight APP has been recognized by individual retail investors, but for small and micro logistics enterprises, from the perspective of operators, it is not only concerned with service quality. Definition, more practical significance is how to quantify service quality, how to establish service quality index system to guide the quality operation and maintenance of the existing network. All management information of the QoS module is reflected in the QoS MIB table. Node information corresponds to a management function, and also corresponds to a type of command of the command line network management. For example, the nodes in the table pont SLATable correspond to all the functional parameters of the SLA.

#### 3. CONCLUSIONS

There is not much difference between online teaching and offline teaching content of machine vision and inspection courses for intelligent manufacturing majors. The content of offline courses can be taught in the way of online teaching. Fully implement the requirements of intelligent manufacturing in the construction of curriculum resources for automated production lines Compared with the practice in practice, the results show that compared with traditional resources, the course resources can be closer to the development needs of intelligent manufacturing talents to a large extent, and the course teaching is more in-depth and autonomous, which reflects the student-centered educational philosophy. User QoS, which requires a good load balancing technology, its accuracy and efficiency directly determine the overall efficiency and performance.

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### Research on Innovative Training Mode of High-Skilled Talents in Equipment Manufacturing Industry Based on School-Enterprise Cooperation

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**Abstract**: School-enterprise cooperation is not only one of the prominent features of modern vocational education, but also helps to strengthen the cooperation between vocational colleges and enterprises, and the combination of teaching and production. It is an important way to realize the development of modern vocational education and build a high-skilled personnel training system. From the perspective of the significance of school-enterprise cooperation in the process of cultivating high-skilled talents, the key factors of the cultivation system of high-skilled talents based on school-enterprise cooperation, the mechanism of "government leadership, industry guidance, and enterprise participation" should be played to promote the deep integration of vocational education with industrial and regional economic development, improve the quality of the cultivation of skilled talents in high-end equipment manufacturing industry, and improve the innovation of the cultivation mode of high-end equipment talents.

Keywords: Innovative Training ; High-Skilled Talents; Equipment Manufacturing; School-Enterprise Cooperation

#### **1. INTRODUCTION**

The school-enterprise cooperation highway engineering highskilled talents training mode is closely around the strategy of rejuvenating the province through science and education, and rejuvenating the industry by talents, further deepening the education and teaching reform with the innovation of highquality skilled talents training mode as the theme, shortening the distance between school education and employment, and conducting research and practice in talent training mode, school-enterprise cooperation mechanism, and the construction of curriculum system based on work process. After full investigation and systematic research, the completed research and practical work are described. At any time, we should pay close attention to enterprises. Only enterprises are the natural, best and only fertile land for the survival, development and growth of vocational colleges.

The survival and development of vocational colleges are closely related to the survival and development of enterprises at all times. Any vocational college that leaves the service to enterprises and the satisfaction of enterprise talent needs will face a severe survival crisis, let alone any real sustainable development. The trend of structural adjustment of high-end equipment manufacturing industry in Zhejiang. The development of high-end equipment manufacturing will deepen the cooperation between education and industry, strengthen the construction of vocational education capacity, improve the level of high-end equipment manufacturing, build a platform for communication, exchange and cooperation between vocational education and industry enterprises, focus on the development of vocational education and high-end equipment manufacturing industry, explore and promote the reform and innovation of modern vocational education system, high-skilled personnel training mode, and strengthen the construction of teaching staff, We will implement the "double certificate" system for teachers and build a team of teachers with a reasonable structure and a combination of fulltime and part-time teachers

Establish and improve the monitoring, evaluation and guarantee system of teaching quality. On the basis of formulating three training programs for highway engineering professionals, including road and bridge engineering technology, highway supervision, and high-grade highway maintenance and management, in order to achieve the objectives of research, experiment and demonstration, adopt the experimental mode of "research, experiment, summary, adjustment, and practice". School-enterprise cooperation to jointly train teachers and build an "integrated" teacher team. On the one hand, take the "going out" approach, fully rely on the talent and equipment advantages of cooperative enterprises, let professional teachers go to the production line of enterprises to learn, research and operate, understand and master the application of new technologies, new equipment and new processes in the production line, broaden their horizons, increase their knowledge and improve their level.

#### 2. THE PROPOSED METHODOLOGY

#### 2.1 The significance of school-enterprise cooperation in the process of cultivating highly skilled talents

In combination with the actual production of the enterprise, research and solve the actual problems of production, improve the scientific research ability, and strive to cultivate the "double-qualified" teaching team suitable for the teaching needs of vocational colleges. The enterprise itself attaches importance to production and short-term benefits, and insufficient investment in staff training, so that the training responsibility that the enterprise should undertake is transferred to vocational colleges and society. At the same time, the internal training system of enterprises is not sound, and there is a lack of complete training plans and arrangements for enterprise employees. Most enterprise employees rarely have time to participate in training. There is a lack of investment in training and education, and there is a

lack of special funds for the cultivation of high-skilled talents in high-end equipment manufacturing.

According to the requirements of professional talent training objectives, follow the vocational skill training law of "basic skill training  $\rightarrow$  professional comprehensive skill training  $\rightarrow$ production practice", integrate and reasonably allocate existing resources on the basis of the construction results achieved, and improve the function and expansion project content of the training base. At present, the Department of Road and Bridge Engineering has built 6 training centers and 32 training rooms. The module design of the information system must comply with the laws of education and teaching work, meet the needs of front-line education work, and cannot simply digitize data. We should focus on the relevance of some key indicators in teaching work, such as the age of students, the distribution of grades, the structure of teachers and other key indicators, and carry out scientific design and arrangement to find out the internal laws, so as to achieve the purpose of promoting teaching

#### 2.2 The main way to innovate the training mode of high-skilled talents in high-end equipment manufacturing

To carry out county-school cooperation, we should not only give full play to the advantages of the county, but also take advantage of the talents, science and technology, and teaching resources of colleges and universities to achieve a win-win situation between the county and colleges. On the one hand, we should improve the training quality, scientific research level, and the level of serving local capabilities of the college's high-skilled talents, and on the other hand, we should provide high-skilled talents for the economic and social transformation and development of the county.

At the same time, it cooperates with Taiwan Longhua University of Science and Technology to run a school. The first stage mainly includes the joint development of professional talent training programs by both parties. It is necessary to further innovate the mechanism and improve the enthusiasm of enterprises to participate.

Although the training mode of school-enterprise cooperation and work-study combination has the characteristics of schoolenterprise "win-win" and students' benefit, due to the characteristics of short-term, novice and difficult to manage, some enterprises have low enthusiasm for participation, and work-study combination requires a large number of internship positions. So the key of the work-study combination training mode is how to innovate in the management and operation mechanism, improve the enthusiasm of enterprises to participate, and establish a long-term mechanism of schoolenterprise cooperation. We will jointly cultivate high-quality skilled talents with the "school-in-factory, factory-in-school" and "trinity" work-study combination training mode.

In order to meet the demand for high-end skilled talents, industrial enterprises should actively participate in the professional construction of higher vocational colleges, and participate in the formulation of professional talent training programs in higher vocational colleges; Jointly develop curriculum standards and characteristic textbooks; Jointly determine the construction plan of the training base; Select senior engineers as part-time teachers to teach for college students.

#### 3. CONCLUSION

To improve the development strategy and talent training mechanism of high-end equipment manufacturing industry, it is necessary to actively explore new internship contents and places, and strengthen cooperation in knowledge innovation, technology innovation, management innovation and other aspects through the guidance and policy support of local governments, enterprises and schools, combining with the development direction of high-end equipment manufacturing industry in foreign countries, taking enterprises in high-end equipment manufacturing industry in Zhejiang as the main body, and taking the market as the law, Make the enterprise become an important radiation source and incubation base for new technology research and development in vocational colleges, as well as a practice base for training students' engineering awareness, engineering ability, innovation and entrepreneurship.

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### Research on the Integration of Ideological and Political Education and Modern Apprenticeship in Colleges and Universities in the New Era

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**Abstract**: With the continuous development and progress of society, universities, as important bases for talent cultivation, not only need to impart professional knowledge, but also need to shape students' correct outlook on life, values, and worldviews. This requires universities to adopt up-to-date ways and methods in ideological and political education. Apprenticeship, as a very ancient educational method, has also developed modern apprenticeship under the background of modernization. It is based on practice, focuses on the cultivation of vocational skills and personality qualities, which meets the requirements of ideological and political education in new era universities. This paper analyzes the characteristics and connotations of ideological and political education in new era universities and modern apprenticeship, explores the compatibility between the two, and proposes how universities can promote the modernization and deepening of ideological and political education through the introduction of modern apprenticeship.

Keywords: Ideological and political education; modern apprenticeship; compatibility; talent cultivation

#### **1. INTRODUCTION**

The inclusive nature of the apprenticeship system can help colleges and universities better carry out ideological and political education and improve the quality of talent training. The characteristics and connotation of ideological and political education in colleges and universities in the new era. Ideological and political education in colleges and universities is an education that cultivates students' ideological and moral quality and cultural accomplishment, as well as national awareness and social responsibility, and is an important link in the cultivation of talents in colleges and universities . The positioning and goals of ideological and political education in colleges and universities in the new era are adhere to the road of socialism with Chinese characteristics, cultivate talents with both ability and political integrity and comprehensive development, improve students' ideological and political quality and cultural literacy, enhance students' national awareness and sense of social responsibility, and promote students. The content and method of ideological and political education in colleges and universities.

The content of ideological and political education in colleges and universities mainly includes ideological and political theory courses, ideological and political practice courses, and ideological and political education activities. Ideological and political theory courses are an important part of ideological and political education in colleges and universities. They mainly teach theoretical knowledge such as Marxist philosophy, political economics, and scientific socialism. The ideological and political practice course is to enhance students' practical ability and innovative ability through practical activities, such as social practice, technological innovation, etc. Ideological and political education activities are to strengthen students' ideological and political education through various forms of educational activities, such as theme class meetings, counselor work, and ideological and political classrooms.

The methods of ideological and political education in colleges and universities mainly include diversification, individuation, openness, and interaction. Diversified methods can help students better understand and accept ideological and political education, personalized methods can carry out ideological and political education according to the characteristics and needs of students, open methods can let students understand different ideas and cultures, interactive the method can help students understand and think better.

#### 2. THE PROPOSED METHODOLOGY

# 2.1 The characteristics and connotation of ideological and political education in colleges and universities in the new era

Characteristics and connotation of modern apprenticeship . Definition and form of modern apprenticeship Modern apprenticeship is a vocational skills training model developed on the basis of traditional apprenticeship and combined with modern requirements. It is based on practice, pays attention to the cultivation of professional skills and personality qualities, and aims to cultivate excellent talents who can meet the needs of the market. There are many forms of modern apprenticeships, such as apprenticeships within enterprises, apprenticeships between schools and enterprises, and apprenticeships in multinational companies.

Modern apprenticeship has the following characteristics:

(1) Strong practicality: Modern apprenticeship is based on practice and focuses on students' practical ability in the workplace.

(2) Personalization: Modern apprenticeships can provide students with personalized training programs and guidance based on their professional needs and personal interests.

(3) Career orientation: The modern apprenticeship system focuses on students' career development and career planning

and provides students with relevant career guidance and assistance.

(4) Diversification: Modern apprenticeships can combine different training forms and contents, such as online training, practical training, classroom teaching, etc. The integration of ideological and political education and modern apprenticeship in colleges and universities in the new era in the new era, ideological and political education in colleges and universities and modern apprenticeship are both important links in cultivating talents, and the integration between the two can help students better access to the improvement of comprehensive quality and professional ability.

#### 2.2 The necessity of integration

The integration of ideological and political education and modern apprenticeship in colleges and universities can not only improve students' professional ability and employment competitiveness, but also help students better understand the direction and trend of social and national development, and better serve the country and society. Cooperation in running schools:

(1) Colleges and universities can cooperate with enterprises and institutions to carry out vocational skills training and practical activities and combine ideological and political education with modern apprenticeship.

(2) Curriculum setting colleges and universities can set up courses such as professional quality and career planning to provide students with guidance and support for career development.

(3) Tutor system: Colleges and universities can introduce a tutor system to provide students with personalized academic guidance and career planning.

(4) Internship opportunities: Colleges and universities can provide students with abundant internship opportunities and professional practice opportunities, so that students can better understand occupations and industries, and enhance professional quality and competitiveness.

#### 3. CONCLUSION

The integration of ideological and political education and modern apprenticeship in colleges and universities can help students better improve their comprehensive quality and continuing professional ability and can also provide talent support and services for the development of the country and society. In order to realize the integration of ideological and political education and modern apprenticeship in colleges and universities, colleges and universities need to strengthen cooperation with external resources such as enterprises and institutions, and also need to innovate and improve curriculum setting, tutor system, and internship opportunities. Only in this way can we better meet the needs of social and economic development and cultivate more high-quality talents who can meet the needs of society.

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### Research on the Educational Logic and High-Quality Development of Vocational Education Theory in the New Era

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**Abstract**: With the development and transformation of China's economy, vocational education plays an increasingly important role in cultivating high-quality labor force and promoting economic development. This article aims to discuss the educational logic and high-quality development of vocational education theory in the new era, and put forward some strategies and suggestions to deal with the challenges of the new era. This article first introduces the background and significance of vocational education in the new era, and then discusses the educational logic of vocational education theory, including practical training and experience, adaptability and innovation. Next, this article puts forward some strategies and suggestions for the development of vocational education in the new era, including strengthening cooperation with industry, improving the quality of teachers, and promoting high-quality development. Finally, this article takes Zhejiang Mechanical and Electrical Vocational and Technical College as a case to introduce its successful high-quality development experience and innovative measures.

Keywords: Educational Logic; High Quality Development; Vocational Education Theory

#### **1. INTRODUCTION**

Vocational education is an essential component of the education system in any country. It provides students with the necessary skills and knowledge to succeed in the workforce and contribute to the development of the economy. In recent years, the Chinese government has been emphasizing the importance of vocational education, especially in the context of the new era. This paper aims to explore the educational logic and high-quality development of vocational education theory in the new era. The new era of vocational education in China is characterized by a focus on innovation, integration, and cooperation. The government has been implementing policies and reforms to promote the development of vocational education and training, with the goal of creating a skilled workforce that can meet the needs of the country's rapidly evolving economy.

One of the key features of the new era of vocational education is the integration of vocational education with higher education. This integration aims to provide students with a seamless transition from vocational education to higher education, as well as to enhance the quality of vocational education programs. The government has also been promoting the development of vocational education in the form of industry-academia cooperation, which involves collaboration between vocational schools and enterprises.

The educational logic of vocational education in the new era is based on the principle of "learning by doing." This principle emphasizes the importance of practical training and experience in vocational education, as opposed to traditional classroom-based learning. The educational logic of vocational education in the new era also emphasizes the importance of adaptability and innovation, as the skills and knowledge required in the workforce are constantly changing. The new era of vocational education also places greater emphasis on the development of soft skills, such as communication, teamwork, and problem-solving. These skills are essential for success in the modern workforce, where collaboration and adaptability are increasingly important.

High-Quality Development of Vocational Education Theory in the New Era. The high-quality development of vocational education theory in the new era is based on several key principles. First, vocational education programs must be designed to meet the needs of the economy and the labor market. This requires collaboration between vocational schools and industry, as well as a focus on practical training and experience.

# 2. THE PROPOSED METHODOLOGY2.1 Overview of the New Era of Vocational Education

Vocational education programs must be adaptable and flexible, in order to keep up with the rapidly changing needs of the economy. This requires ongoing evaluation and revision of vocational education programs, as well as the development of new programs to meet emerging needs. Third, the high-quality development of vocational education theory in the new era requires a focus on innovation and integration. This includes the integration of vocational education with higher education, as well as the integration of vocational education with industry. It also requires the development of innovative teaching methods and approaches that emphasize practical training and experience.

Vocational education in the new era refers to the goal of adapting to the employment needs of different industries and fields under the new economic and social background, with the guidance of improving students' employability and practical ability, and cultivating practical, compound and high-quality talents. Talent-oriented vocational education.

Vocational education in the new era not only needs to meet the employment needs of different industries and fields, but also needs to cultivate students' practical ability, innovation ability and adaptability to adapt to the increasingly complex and changing social and economic environment.

# **2.2** Challenges and Opportunities in the High-Quality Development of Vocational Education Theory in the New Era

One of the biggest challenges is the lack of qualified vocational education teachers. The government has been implementing policies to address this issue, such as providing training for vocational education teachers and offering incentives to attract more qualified teachers to the field. Another challenge is the need to develop vocational education programs that are tailored to the needs of different industries and regions. This requires collaboration between vocational schools, industry, and local governments, as well as ongoing research and evaluation. However, there are also many opportunities for the high-quality development of vocational education theory in the new era.

One of the biggest opportunities is the rapid growth of the Chinese economy, which has created a demand for skilled workers in a wide range of industries. Another opportunity is the increasing emphasis on innovation and entrepreneurship in the Chinese economy, which requires workers. with strong problem-solving and critical thinking skills.

Therefore, it is of great significance to study the educational logic and high-quality development of vocational education theory in the new era to promote the reform and development of vocational education.

#### 3. CONCLUSION

The new era of vocational education in China is characterized by a focus on innovation, integration, and cooperation. The educational logic of vocational education in the new era emphasizes the importance of practical training and experience, as well as adaptability and innovation. The highquality development of vocational education theory in the new era requires collaboration between vocational schools, industry, and local governments, as well as ongoing research and evaluation.

#### 4. ACKNOWLEDGEMENT

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### Innovation and QoS Performance Evaluation Analysis of Real-Time Sharing Platform of Intelligent Courses in Colleges

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Abstract: With the gradual rise of online MOOC teaching platforms, real-time sharing algorithms and QoS performance evaluation systems for online intelligent courses in colleges and universities are becoming more and more important. First of all, introduce the intelligent cloud teaching method with cloud classroom app tools as the core application, and use the smart campus platform to "fancy teaching" classrooms, MOOCs, live broadcasts and other popular forms such as animations, micro-videos, WeChat and other popular forms and language communication management. Knowledge and principles, followed by autonomous and intelligent methods used in implementing QoS decision-making and control in a cognitive network environment, to solve the problems of poor adaptability and comprehensiveness of dynamic and changeable networks. It can effectively improve the utilization rate of network resources and ensure the end-to-end QoS of the network. The results show that: NET, XML and other key technologies, on this basis, the intelligent teaching platform solution of NET, the framework and overall design of the teaching platform are introduced.

Keywords: QoS Performance Evaluation, Real-Time Sharing Platform, Intelligent Courses

#### **1. INTRODUCTION**

With the rapid development of modern information technology, the development of Internet technology has deeply affected people's way of life and economic activities, and it has also changed the traditional education model. application, making education methods more diverse [1]. Realize the integration of curriculum education into all aspects of classroom teaching and intelligent cloud teaching anytime, anywhere, which not only enhances students' sense of participation and interaction in classroom learning, but also conforms to the trend and direction of new teaching reform in the era of intelligent cloud teaching, and gives full play to online teaching effect [2].

In his speech during his visit to China, John Chambers, President of Cisco Group, said that in today's society, only by grasping the Internet can we grasp the future. People, flexible education, real-time education, anytime, anywhere, a new way of subtle education [3]. The report of the 19th National Congress of the Communist Party of China pointed out that "innovation is the primary driving force for development and the strategic support for building a modern economic system" in terms of innovation-driven, state-owned enterprise reform and investment and financing system reform [4], and "it is necessary to improve various state-owned asset management systems and reform state-owned capital. However, at this stage, the sharing level of my country's scientific and technological innovation platform is still not optimistic, and the utilization rate of scientific and technological resources in my country is far behind that of developed countries [5].

According to the survey, the number of scientific research instruments and equipment in my country is more than that in the 5 EU countries. The utilization rate of developed countries is as high as 170-200% [6], while the utilization rate of equipment in my country is less than 25%. This paper comprehensively analyzes the impact of information education modernization on education and teaching reform [7], the current situation of teaching and curriculum resource

construction in higher sports colleges and universities, and the impact of mobile Internet WeChat public platform tutoring on the construction of basketball professional curriculum in sports colleges, etc. [8] With the increasing maturity of network communication technology and the gradual improvement of college informatization construction, The craze for MOOCs has swept the world. The traditional class teaching system has been gradually reformed, and the doors between colleges and universities have gradually opened [9].

Under the wave of education reform, a new generation of curriculum community - curriculum sharing alliance has been formed [10]. The concept of cognitive network originated from the idea of introducing knowledge plane (KP) into the Internet put forward by D. Clark et al. [11] What should be done". Learning activities are transformed from passive acceptance to active construction, and learning evaluation can realize the transformation from summative evaluation to process evaluation, and in a real sense, realize the comprehensive cultivation of students' professional ability [12].

The sports technology course is the core course of the professional platform of the sports major in colleges and universities, especially the teacher major [13]. The functions of the "Blue Ink Cloud" class app have been comprehensively developed to make it an important carrier for intelligent cloud teaching of ideological and political theory courses [14]. At the same time, the mature development of WEB database technology and interactive dynamic page technology based on three-layer CIS structure also provides reliable software support for it [15]. Considering practicability and economy, building a network teaching platform based on WEB technology is an important task and development direction of the current network teaching resources construction [16].

Introduce the intelligent cloud teaching method with the blue ink cloud class App tool as the core application, use smart phones in classroom teaching to carry out relaxed and interesting interactive teaching, and timely deliver the courseware on the "blue ink cloud" class platform. Enterprise innovation and the relationship between the corporate governance model, the existing research believes that the corporate governance model determines the supply of resources necessary for enterprise innovation, such as the external takeover of the control market and the ownership structure. The pharmaceutical industry is the key area of scientific and technological innovation in my country, after the information industry. Another new strategic leading industry in the world economy, the old I. At present, there are few literatures devoted to the sharing and operation of scientific and technological innovation platforms in the pharmaceutical field of Guangdong Province, and most of them are mainly journal papers, and the research is not indepth enough.

### THE PROPOSED METHODOLOGY The Real-Time Sharing Platform of Intelligent Courses in Colleges and

#### Universities

The applications at the two ends are more popular. The network platform provided by the school's smart campus is used to disseminate the typical cases and excellent experiences of management teaching and the excellent educational effects achieved on WeChat, Weibo and news clients. Improve user UI The friendliness of the interface adapts to the limitations of network communication and the hardware structure of mobile devices, and reflects the characteristics of outstanding functions, easy operation, and good interaction, which play an auxiliary and supportive role in the course teaching process.

Based on the above situation, combined with the actual situation of our school, the requirement of building a network intelligent teaching platform is put forward, aiming to solve the difficulties of insufficient classrooms and limited class hours by realizing the functions of each module in the network teaching intelligent platform, and at the same time realize the interaction between teaching and learning, Improve teaching quality and teaching efficiency. Innovation-driven refers to the use of innovative elements such as knowledge, technology, and systems to recombine existing tangible elements such as capital, labor, and material resources and convert them into economic and social benefits. It is an important support for accelerating the transformation and development of enterprises.

According to the different survey objects, the research finally designed two questionnaires. The management layer mainly has functions such as user identity authentication, authority allocation, usage activity records, and various usage records statistics; the network layer mainly establishes relevant databases to realize the data of each functional module. Store, call, and maintain the normal operation of the software system. The current propaganda efforts are not enough, and advertisements for various products have not been deeply rooted in the hearts of the people, especially for new products, which need to be expanded through various propaganda methods to expand their popularity and popularity. Second, product marketing methods are lacking. Microsoft introduced Visual Studio. NET integrated development environment. This integrated environment contains many powerful tools and supports many programming languages, such as c#, Visual Basic. NET, C++, etc. Visual Studio. NET comes with its own. NET Framework is to run ASP.

#### 2.2 The Innovation In Sharing Platforms

Students can check the learning repeatedly to meet the learning requirements, and at the same time, the software background can record the data of the corresponding learning activities for the reference of teachers in the process evaluation. It also includes standard action models of various technical actions, so that students can gain an intuitive understanding of correct actions through repeated viewing. The product packaging, which is an important manifestation of brand image, has not been paid enough attention to, and the market analysis of men's makeup is not enough. "

Student C explored the countermeasures for this problem: "We must adapt to and make good use of the influence of the international environment of economic globalization. ASP.NET is a compiled and .NET-based environment. You can use any combination with .NET. Compatible languages (including Visual Basic.NET, C# and Jscript.NET.) create applications. In addition, any ASP.NET application can use the entire .NET framework. In view of this, build an innovation-driven performance evaluation index system to judge local innovation-driven efficiency of platform companies provides new ideas for the transformation and development of local platform companies.

Shared courses are gradually introduced into the educational administration system of each alliance school for students to study as electives. The survey found that students choose 1 to 2 online courses, accounting for 78.26%, and fewer students choose 3 to 4 courses online. Taking typical platform companies in Qingdao as the research object, 30 companies with different governance modes of A, AE and E are selected. Questionnaire surveys were taken to the senior managers of 30 platform companies and relevant stakeholders such as government banks, so that students could have a correct understanding of their own learning status, so as to get feedback and adjust learning strategies. The real-time communication module provides a communication platform for teachers and students that is not limited by time and space, through online question answering or topic discussion.

#### **2.3 The QoS Efficiency Evaluation Analysis**

With the help of college Weibo, WeChat public account and news client, upload, share and exchange theoretical articles, classic videos, and high-quality materials related to courses in real time, and educate people in real time, and work together to build and share education methods. and resources. And supports a variety of programming languages, such as c#, Visual Basic. NET, C++, etc. Visual Studio. NET comes with its own. NET Framework is to run ASP. NET required, Visual Studio. NET provides a good development environment to realize ASP.

NET application foundation. The purpose of locating cognitive network QoS degradation is that the network can autonomously track the current QoS status according to the results of cognitive network QoS health evaluation, causing the performance degradation of more links. According to the evaluation results of innovation-driven efficiency in Part 2, the general direction of the transformation of local platform corporate governance model is to transform from a government-led governance model to a market-led governance model, and constantly improve the modern enterprise system, establish, and improve the internal decision-making procedures for project investment and financing. The survey data on the staff shows that 80% of the

staff understand the shared services of the technology innovation platform, of which 13.3% and 30% know very well and 30%, respectively. Most of the staff have a certain understanding of platform sharing services, but the understanding is not very high.

#### 3. CONCLUSIONS

Through the development and application of the intelligent auxiliary teaching platform, the teaching process of sports technology courses can be enriched, some practical problems currently existing can be solved, and the teaching concept of "student-oriented" can be truly realized from the perspective of improving students' professional ability. The university curriculum sharing alliance can understand the further development and innovation on the basis of university alliance and MOOC. Course alliances are currently mainly divided into regions and cooperative content, including regional university course sharing alliances and cross-regional university course sharing alliances. Taking the end-to-end QoS requirements of cognitive network services as the starting point, combined with cognitive network QoS autonomous control design the goal is to combine the cognitive process of OODA on the basis of analyzing the advantages and disadvantages of the existing cognitive network QoS control framework.

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### Real-Time Monitoring System for School-Enterprise Dual-Host Sports Person Path Optimization Based on Online Data Interest Community Game Algorithm

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**Abstract**: This paper expounds the framework and innovation of a school's construction of a "two-three-three system" schoolenterprise dual-discipline interactive teaching quality monitoring system. First, based on the online data mining algorithm, this paper proposes a data forwarding topology model for mobile social networks. This model combines the game theory algorithm to conduct real-time monitoring and analysis of the autonomous learning and teaching modes of schools and enterprises. Then, the game theory algorithm will eventually converge. To Nash equilibrium, that is, through the overall optimal solution combined with school-enterprise supervision of practical teaching and teaching evaluation to carry out comprehensive teaching quality monitoring, so as to maximize the teaching quality and improve the effect of teaching quality.

Keywords: Real-Time Monitoring System, School-Enterprise Dual-Host, Sports Person Path Optimization, Data Interest Community

#### **1. INTRODUCTION**

The outline of the national medium- and long-term education reform and development plan mentioned in the "Promoting the Pilot Program of Vocational Education School-running Model Reform" that "focusing on promoting government coordination [1], school-enterprise cooperation, and groupbased school-running, explore mechanisms for departments, industries, and enterprises to participate in school-running.". As a type of higher education in my country, higher vocational education, while expanding its scale, vigorously strengthens its connotation construction and continuously improves teaching quality has become the core subject of scientific development [2].

Establish a systematic, scientific and effective teaching quality monitoring system "15679" The specific content of the talent training quality monitoring system "1" in "15679" means that in the process of running a school [3], according to the relevant national higher vocational education policies and regulations, usually, The "resources" in the simulation system can be divided into: basic resources characterized by data, models and algorithms; simulation support resources characterized by simulation modeling tools, operation support software, management facilities, etc.; functional applications . Simulation application resources characterized by simulation equipment, etc. [4] Combined with the actual situation of our hospital, according to each teaching link, a complete set of teaching quality management system has been formulated. Various mobile devices use different access methods. For example, mobile phone users may access through 3G base stations, while Pad, Tablet [5], and notebook computers may be accessed through WIFI, forming a bottom layer between them. Mobile Hybrid Communication Network [6].

The diffusion query message routing method [7] first appeared in the wireless network where the connection is easy to be interrupted. When this method is applied to the OSN environment, each node needs to carry a message list. When two nodes meet, they exchange their respective message lists with each other. After the nodes compare each other's message lists, they exchange message data that they do not have. In fact, the nodes inside the community with the same interest have a higher probability of encounter than the nodes outside the community [8]. However, the problem with this scheme is that the logical connection relationship between the nodes in the logical social community constructed in practical applications is different from the nodes in the physical network [9].

The ultimate goal of promoting the reform of the schoolrunning mechanism is to update the vocational education personnel training model and improve the quality of personnel training [11]. As a backbone vocational college in Henan Province, Zhongzhou University has transformed the concept of talent training through innovative mechanisms in recent years. Based on a new starting point, we adhere to the serviceoriented and employment-oriented "7" in "15679" refers to the use of professional post ability standard evaluation [12], information feedback, teaching evaluation, conference consultation, reward and punishment treatment, management correction, quality tracking There are seven ways (measures) to carry out comprehensive teaching quality monitoring [13].

In the past, the simulation systems constructed by distributed simulation technology [14] are generally rigid, and need to be run in a certain environment, according to a predetermined target and a certain simulation process. The application needs of flexible reorganization of complex multipurpose simulation system [15]. At the same time, these mobile devices can also be directly connected through short-distance communication protocols such as WI-FI Direct, Zigbee, and Bluetooth.

By running the authorized client software, on the basis of the underlying mobile hybrid communication network, a virtual social network (Virtual Social Network) is formed [16], and on this basis, the electricity price bidding decision based on the maximum bidding risk tolerance ratio and the minimum electricity cost is constructed. The validity of the model was verified through the multi-agent simulation platform. real community of interests [17].

#### 2. THE PROPOSED METHODOLOGY

## **2.1** The Online Data Interest Community Game Algorithm

In the simulation task community service selection algorithm, the simulation task community is the main body, the service quality is the standard, and the service selection is the means. Therefore, improving the performance of mobile social network data forwarding is one of the difficulties faced by mobile social network data forwarding. For this problem, this paper tries to use game theory in economics, uses price signals to reflect the availability of resources, and uses the most economical resources to perform data forwarding tasks. The above research has achieved good results, but most of the research is limited to the game competition between the generation side or the demand side has not yet involved the research on the game competition among multiple subjects in the multi-microgrid system.

When the Chinese government chooses to cooperate, certain financial subsidies are required for the environmental responsibility initiatives of Chinese multinationals. When the host government chooses to cooperate, it needs to provide certain policy support to Chinese multinational enterprises and undertake the task of supervision. Under the guidance of common simulation tasks, the distributed simulation node groups, corresponding service groups, management facilities, data model libraries and other simulation software and hardware resources will form a simulation logic system with specific functions and purposes. Blockchain technology can promote multi-microgrid market competition game information is open and transparent.

The free nature of blockchain information reflects fair competition in the market. As time progresses, this model assumes that when the Chinese government and the host country government establish a cooperative supervision mechanism, the two governments need to formulate certain cooperation options that are conducive to the development of enterprises. In the simulation task community, there are multiple simulation nodes, and the simulation service group corresponding to each simulation node does not exist in isolation, but has a certain relationship of intersection, inclusion, etc. The concept of Nash equilibrium provides a very important Analytical means, so that game theory research can find the optimal result in a game structure. The following will be based on the idea of game theory. And there are one or more services that can achieve specific functional purposes in the same service group

# **2.2 The School-Enterprise Dual-Host Sports Person Path Optimization**

In order to build a systematic, scientific and effective teaching quality monitoring system, we earnestly study the documents of the Ministry of Education, go to relevant enterprises and higher vocational colleges for research, combined with the long-term teaching reform of our school and the construction of actual personnel training quality monitoring is in the teaching assistant college. under long leadership.

The Educational Affairs Section is specifically responsible for the overall coordination of the quality monitoring of personnel training, and the teaching management activities that have an important impact on the self-monitoring of the teaching process are organically combined. To meet the needs of market expansion, industrial integration, structural optimization, and technological progress, the training market needs to form a stable and effective whole that can guarantee and improve the quality of talent training, supervise and control the talent training process, and achieve predetermined goals. In the process of quality monitoring of personnel training, the teaching and research department focuses on the daily monitoring of the teaching link. The director of the teaching and research department is responsible for various inspections and evaluations. To organize the test paper propositions of the teaching and research department to construct a similar case set, two issues must first be considered: the target problem and the "historical case" problem. "Similarity, as well as the similarity between the alternative plan and the "plan" in the historical case, a sound teaching quality management organization is the organizational guarantee for teaching and teaching evaluation. It is composed of management personnel who are responsible for the organizational leadership of teaching quality monitoring.

On this basis, the cases with high similarity are extracted to form a similar case set Z. According to this talent training goal, the teaching steering committee of each major in our college has hired a group of industry experts and skilled craftsmen. The proportion of skilled craftsmen attending classes in schools, strengthening the qualification review and supervision of teaching teachers, and the "implementation effect" attributes of historical cases are composed of two types: numerical and linguistic. To calculate the utility value of the implementation effect of different historical cases, the premise is to Attribute values are standardized and quantified.

## **2.3** The Real-Time Monitoring System for the Optimization of Education Paths

In the service-oriented warship combat simulation system with the ability to build a simulation mission community, the current mode of the system is set to formation simulation training, and the evaluation of the talent training process for building a simulation training mission community includes two parts: theoretical and practical teaching. The quality of theoretical teaching the evaluation focuses on the monitoring of theoretical knowledge learning, and the Academic Affairs Office and the College Teaching Office strengthen the quality control of personnel training.

#### 3. CONCLUSIONS

The dual main body of school and enterprise implements a whole-process interactive teaching quality monitoring system, maximizes the role of industry enterprise experts and skilled craftsmen, and meets the requirements of school-enterprise cooperation and work-study integration talent training model reform. It is the connotation construction of higher vocational education and teaching. An effective new idea and new method to solve the generalized uncertain service selection problem of simulation task community, which has certain reference value for the research on resource allocation optimization of large-scale multi-purpose simulation system. In the process of school-enterprise cooperation in educating people, enterprises and universities participate together to standardize the process of monitoring teaching operation and improve the management of teaching operation.

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### Research on the Application of Computer-Aided Industrial Design and 3D Printing Technology: A Comprehensive Perspective Analysis

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**Abstract**: With the continuous development and popularization of computer-aided industrial design technology and 3D printing technology, the integration of the two is also receiving more and more attention. Starting from the basic principles and development history of computer-aided industrial design technology and 3D printing technology, this paper introduces the advantages and current situation of the integration of the two, and focuses on exploring the integration of computer-aided industrial design and 3D printing technology in product design, process analysis, and manufacturing process optimization. Finally, the development trend and future prospects of integration application are summarized.

Keywords: Computer-aided industrial design; 3D printing technology; integration application; product design; process analysis; manufacturing process optimization

#### **1. INTRODUCTION**

Computer aided industrial design technology and 3D printing technology are widely used high-tech tools in today's industry. Their application can greatly improve the efficiency and quality of industrial design and provide strong support for the rapid development of manufacturing industry. With the continuous progress of computer technology and manufacturing technology, computer-aided industrial design technology and 3D printing technology are also developing and improving, and the integration application of the two is also receiving more and more attention.

This paper mainly discusses the integrated application of computer-aided industrial design technology and 3D printing technology, focuses on the application of the two in product design, process analysis and manufacturing process optimization, and analyzes the development trend and future prospects of the integrated application, with a view to providing reference and reference for researchers and engineers in related fields.

Computer-Aided Industrial Design (CAI) technology is a method of applying computer technology to industrial design. It includes Computer-Aided Design (CAD for short), which is an industrial design technology based on computer-aided design. It uses computers to carry out product design, drawing, editing, storage and transmission. CAD technology can quickly complete the formulation of design schemes, improve design efficiency and accuracy, and at the same time can easily modify and adjust design schemes, saving time and cost.

CAE technology is an engineering design technology based on computer-aided analysis. It uses computer simulation analysis tools to carry out engineering design and analysis. CAE technology can analyze products in mechanics, thermodynamics, hydrodynamics and other aspects, so as to improve the reliability and safety of products. CAM technology is an industrial design technology based on computer-aided manufacturing. It uses computers to manufacture and process products. CAM technology can quickly and accurately generate processing programs, improve manufacturing efficiency and quality.

#### 2. THE PROPOSED METHODOLOGY

#### 2.1 Fusion application in industrial design

In industrial design, the integrated application of CAD, CAE and CAM technology can realize the seamless connection of design, analysis and manufacturing, thus improving the design efficiency and quality of products. At the same time, through the integration and application of 3D printing technology, the design scheme can be quickly converted into a solid model to achieve rapid verification and optimization.

For example, in automobile design, engineers can use CAD software to design the appearance and structure of automobiles, and use CAE software to conduct mechanical analysis and simulation, and finally use CAM software to convert the design scheme into manufacturing procedures. At the same time, 3D printing technology can be used to rapidly manufacture solid models of automobile parts for use in design verification and improvement.

In addition, in industrial design, 3D printing technology can realize rapid prototype manufacturing and small batch production, thus shortening the product development cycle and production cycle. For example, in the development of new products, designers can use CAD software to develop product design schemes, then use 3D printing technology to manufacture solid models for verification and improvement, and finally convert the design schemes into manufacturing procedures for mass production.

In addition, in industrial design, 3D printing technology can realize rapid prototype manufacturing and small batch production, thus shortening the product development cycle and production cycle. For example, in the development of new products, designers can use CAD software to develop product design schemes, then use 3D printing technology to manufacture solid models for verification and improvement, and finally convert the design schemes into manufacturing procedures for mass production.

# **2.2 Fusion application in 3D printing technology**

The integration and application of industrial design and 3D printing technology requires a deep intersection of computer technology and manufacturing technology, which requires designers to have broader knowledge and skills, which puts forward higher requirements for talent training and education.

1) Secondly, data integration and sharing in fusion applications is also an important issue. Because industrial design and 3D printing technology usually involve different software and file formats, it is necessary to develop corresponding data interfaces and standards to achieve seamless data conversion and sharing. CAD into intelligent CAD is shown below.

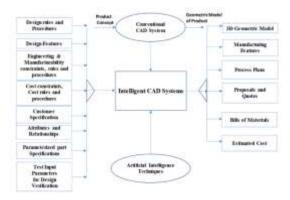


Fig. 1. CAD into intelligent CAD (image from Internet)

2) Finally, the manufacturing technology in the fusion application also needs to be continuously developed and improved. At present, there are still some limitations and limitations in the material, precision and speed of 3D printing technology, which need further research and improvement.

In short, the integrated application of computer-aided industrial design and 3D printing technology is a promising technology, which can improve the efficiency and quality of industrial design, and also expand the application field and scope of 3D printing technology. However, in practice, we need to overcome some problems and challenges in technology and management to achieve good results of integrated application.

#### 3. CONCLUSION

This paper analyzes the integration and application of computer aided industrial design and 3D printing technology, focusing on its technical characteristics, application advantages, integration methods, existing problems and challenges. Based on the research and practice at home and abroad, the following conclusions are drawn: First, the integrated application of computer-aided industrial design and 3D printing technology can improve the design efficiency and quality, shorten the product development cycle and production cycle, and also expand the application field and scope of 3D printing technology. This integrated application has been widely used in many industries, including automotive, aerospace, medical, education and other fields. The integration and application of industrial design and 3D printing technology requires a deep intersection of computer technology and manufacturing technology, and requires designers to have broader knowledge and skills. Data integration and sharing in fusion applications is also an important issue, and corresponding data interfaces and standards need to be developed to achieve seamless data conversion and sharing. The manufacturing technology in the fusion application also needs to be continuously developed and improved.

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### Conspiracy Reversal-A Discussion on Karatani's "Japanese Literature" and Mizoguchi Yuzo's "Chinese Thought"

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**Abstract**: This paper compares and analyzes two cultural phenomena, the "Japanese literature" of Kojin Karatani and the "Chinese thought" of Yusaburo Takeuchi, in order to explore their similarities and differences and the cultural backgrounds behind them. This paper first elaborates on the connotations and basic features of the concepts of "Japanese literature" and "Chinese thought" respectively proposed by Karatani and Takeuchi, and then carries out comparative analysis from three aspects of cultural contact, historical background and cultural value, exploring the similarities and differences between the two cultural phenomena and their significance for contemporary culture.

Keywords: Conspiracy Reversal, Karatani, Japanese Literature, Mizoguchi Yuzo, Chinese Thought

#### **1. INTRODUCTION**

Cultural exchange and dialogue have always played an important role in promoting mutual understanding and respect between different countries and cultures. In this context, the exchange and dialogue between Japan and China have been of particular significance. Among the many individuals who have contributed to this exchange, two stand out: Takeuchi Yoshimi and Koguchi Yuzo. Takeuchi was a leading literary critic in Japan in the mid-20th century, while Koguchi was a scholar of Chinese philosophy. This paper examines the exchange and dialogue between Takeuchi and Koguchi and its significance for cultural exchange and dialogue in the contemporary world. The paper is divided into three parts. The first part provides a brief introduction to the two scholars and their works. The second part examines their exchange and dialogue on the nature of "Japanese literature" and "Chinese thought." The third part discusses the implications of their exchange and dialogue for cultural exchange and dialogue in the contemporary world.

The 20th century was an era full of changes and challenges, and cultural exchanges and dialogues also achieved unprecedented development during this period. Among them, the Japanese writer Karatani Hiroto and the Chinese thinker Mizoguchi Yuzo are two representative figures. They respectively represent two aspects of Japanese literature and Chinese thought, and through the examination and debate of each other, they have promoted the exchange and dialogue between the cultures of the two countries.

Hiroto Karatani is a famous Japanese writer, critic and thinker in the 20th century. He put forward many influential literary theories, such as "freedom between sex", "play between sex" and so on. His works and theories not only had a profound impact on the Japanese literary circle, but also attracted widespread attention worldwide. Yuzo Mizoguchi is one of the representative figures of Chinese thought. Through the research and interpretation of traditional Chinese thought, he has opened up a new research path and is known as "the most thoughtful Chinese scholar in contemporary times". The relationship between Hitoto Karatani and Yuzo Mizoguchi can be traced back to the 1960s and 1970s, when cultural exchanges between Japan and China were at a low ebb. Through correspondence and face-to-face communication, the two gradually established a deep friendship and mutual respect. However, the two have differences and disputes on certain issues, which is also the reason for the debate between the two.

#### 2. THE PROPOSED METHODOLOGY

# 2.1 Exchange and Dialogue on the Nature of "Japanese Literature" and "Chinese Thought"

Takeuchi Yoshimi (1910-1977) was a leading literary critic and intellectual in Japan in the mid-20th century. He was a prolific writer and thinker who made significant contributions to the development of literary criticism, philosophy, and cultural studies in Japan. He was also a prominent figure in the debate on the nature of "Japanese literature" and its relation to other literary traditions.

Koguchi Yuzo (1901-1963) was a scholar of Chinese philosophy and intellectual history. He was also a prominent figure in the debate on the nature of "Chinese thought" and its relation to other philosophical traditions. Koguchi's major works include "Studies in Chinese Philosophy" and "Chinese Philosophy and Culture."

Takeuchi and Koguchi's exchange and dialogue on the nature of "Japanese literature" and "Chinese thought" began in the 1950s and continued until their deaths. Their exchange was characterized by a deep mutual respect and a commitment to understanding each other's culture and thought. Their exchange and dialogue covered a wide range of topics, including the nature of literature, the role of the intellectual, the relationship between literature and society, and the relationship between literature and philosophy. One of the central themes of their exchange was the nature of "Japanese literature." Takeuchi argued that "Japanese literature" was a distinct tradition that was different from other literary traditions. He argued that the uniqueness of "Japanese literature" lay in its ability to express the particular sensibility and emotions of the Japanese people. Koguchi, on the other hand, argued that "Japanese literature" was not a distinct tradition, but rather a part of the broader East Asian literary tradition. He argued that the similarities between "Japanese literature" and other East Asian literary traditions were more significant than the differences.

#### 2.2 The Connection and Enlightenment of Hitoshi Karatani's "Japanese Literature" and Mizoguchi Yuzo's "Chinese Thought"

Hiroto Karatani's "Japanese Literature" and Mizoguchi Yuzo's "Chinese Thought" are important thoughts and theories that reflect on and explore local culture and traditions in the context of cultural globalization and diversification. Although the two are aimed at Japanese literature and Chinese thought respectively, they are interrelated and inspired to a certain extent.

First, both emphasize the local and global aspects of culture. Hiroshi Karatani believes that Japanese literature needs to pay attention to local traditions and cultural characteristics, and at the same time seek its own uniqueness and value in global cultural exchanges; Yuzo Mizoguchi believes that Chinese philosophy not only has national and regional characteristics, but also has universal and global values. Both concepts emphasize the importance of cultural diversity, and at the same time call for the organic combination and innovation of local and global cultures. Second, both emphasize the importance of cultural exchange and inheritance.

Hiroshi Karatani believes that literature, as a way of cultural expression, needs to understand and explain its connotation and form through historical and cultural research, and also needs to discover its own uniqueness and value in cross-cultural communication; Yuzo Mizoguchi emphasized The history and reality of Sino-Japanese cultural exchanges and inheritance, and calls for strengthening Sino-Japanese cultural exchanges and cooperation in the context of globalization. Finally, both explore issues of cultural integration and innovation. Karatani tried to innovate and reform Japanese literature by introducing and continuing the influence of Western literature and philosophy.

Yuzo Mizoguchi called for exploring the intersection and complementarity of Chinese thought and Western philosophy and culture under the background of "combining Chinese and Western cultures". Both concepts call for the importance of cultural diversity and cultural innovation, and at the same time remind us of the need for a more open, inclusive and innovative cultural mentality. In these connections and revelations, we can see that in the context of cultural globalization and diversity, local cultures and traditions are facing major challenges and opportunities.

#### 3. CONCLUSION

This article discusses the importance and development path of local culture and tradition in the context of cultural globalization and diversification from the perspectives of Hitoto Karatani's "Japanese Literature" and Mizoguchi Yuzo's "Chinese Thought". We can see that whether it is the study of Japanese literature or Chinese thought, it is necessary to seriously reflect and discuss its own cultural characteristics and values from the perspective of history and reality, and it

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### Aesthetic Ideas in Japanese Classical Literature in the New Media Era

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**Abstract**: With the rapid development of new media technology, people's reading and cultural consumption methods are also undergoing tremendous changes. However, under the background of this change, Japanese classical literature, as a traditional cultural form, still has rich aesthetic concepts and cultural values. From the perspective of aesthetics, this article discusses the aesthetic concepts in Japanese classical literature in the new media era, aiming to reveal its inspiration and value to contemporary culture.

Keywords: New media era; Japanese classical literature; aesthetic concept; cultural value

#### **1. INTRODUCTION**

With the continuous advancement and popularization of new media technology, people's reading and cultural consumption methods are also undergoing tremendous changes. Compared with traditional paper reading methods, the advantages of electronic reading and online reading lie in convenience and diversity. They can not only acquire and read cultural products anytime and anywhere, but also carry out more personalized reading and cultural consumption. However, in the context of this transformation, what we have to think about is: Can traditional culture adapt and play a role in the new media era?

In this issue, Japanese classical literature, as a traditional cultural form, has always attracted people's attention and discussion. Although it has passed through the centuries, its spirit and values still hold an important place in contemporary culture. The aesthetic concept in Japanese classical literature has profound enlightenment and value for the development and innovation of contemporary culture. From the perspective of aesthetics, this article discusses the aesthetic concepts in Japanese classical literature in the new media era, aiming to reveal its inspiration and value to contemporary culture.

Japanese classical literature refers to literary works created in ancient Japan (roughly from the 8th century to the 17th century), including poetry, prose, drama and other literary forms. Among them, the most representative works are "Manyoshu", "The Tale of Genji", "The Tale of Bamboo Cutter" and so on. Japanese classical literature contains rich cultural values and aesthetic concepts. Among them, the most important aesthetic concepts are "和" (wa), "幽玄" (yugen), "wabi-sabi" Japanese Classical Literature in the New Media Era In the new media era, Japanese classical literature still has a wide range of readers and audiences. Traditional Paper books are still the main form of reading Japanese classical literature, but with the development of new media technology, electronic reading and online reading have gradually become the main way for people to obtain and read Japanese classical literature.



Figure. 1 "Pine Trees Screen (right)" by Tohaku Hasegawa (Approx.1593-95).

#### 2. THE PROPOSED METHODOLOGY 2.1 Japanese Classical Literature in the New Media Era An Overview of Japanese Classical Literature

In Japanese classical literature, "Yugen" has a very diverse form of expression, such as the change of seasons in "Pillow Soaker", detailed descriptions in "The Tale of Genji", and descriptions of wars in "The Tale of Heike". In the era of new media, the significance of the aesthetic concept of "Yu Xuan" is even more important. In a continuous society full of superficial glitz and information overload, people need a deep way of thinking to explore the true value and meaning of things. The "Yugen" aesthetic concept in Japanese classical literature provides a way for people to think and explore the essence of things. "Mononoaware" (mononoaware) "Mononoaware" is an aesthetic feeling for the ephemeral and passing, which means the beauty and sorrow for things. In Japanese classical literature, the aesthetic concept of "monosorrow" is widely used in literary creation.

For example, the emotional description in "The Tale of Genji", the trivial details of life in "The Pillow", and the natural landscape in "Tosa Diary", etc., all reflect the aesthetic concept of "mono-sorrow". In the era of new media, the significance of the aesthetic concept of "sorrow for things" is even more prominent. In an ever-changing, fast-paced society, people need a way to feel and experience the ephemeral and fleeting beauty of things. The aesthetic concept of "mono-sorrow" in Japanese classical literature provides a way for

people to feel and experience the beauty and sadness of things.

"Wabi-sabi" (wabi-sabi) "Wabi-sabi" is a quiet, simple, and natural aesthetic concept, emphasizing the beauty of simplicity and nature. In Japanese classical literature, the aesthetic concept of "wabi-sabi" is widely used in literary creation. For example, the natural landscape in "Tosa Diary", the daily trifles in "Anonymous Grass", and the travel experience in "The Diary of the Tokaido", etc., all reflect the aesthetic concept of "wabi-sabi". In the era of new media, the significance of the aesthetic concept of "wabi-sabi" is more prominent. In a society of material abundance and information explosion, people are eager to find a simple and natural way of life. The "wabi-sabi" aesthetic concept in Japanese classical literature provides people with a simple and natural way of experiencing beauty.

# 2.2 Aesthetic Ideas in Japanese Classical Literature in the New Media Era

Another very famous Japanese classic writer is Natsume Soseki, whose works also contain many aesthetic ideas. For example, in "Grass Pillow", Natsume Soseki demonstrated the aesthetic thought of "moment" through the protagonist's experience, emphasizing the shortness and preciousness of life. The work describes the protagonist's various encounters during his wanderings, showing his thinking about the meaning of life and his insight into the world. In addition, the influence of "wabi-sabi" aesthetics can also be seen in other works of Natsume Soseki. For example, in "Heart", Natsume Soseki expresses the contradiction and helplessness towards life through the protagonist's inner monologue, reflecting his understanding of human nature. in-depth exploration.

It can be seen that the aesthetic thoughts in Japanese classical literature are very diverse and rich. These aesthetic ideas express people's understanding and exploration of nature, life, humanity and sophistication from different angles. These ideas are not only reflected in Japanese classical literature, but also have an important impact on modern literature and artistic creation.

With the advent of the new media era, the forms of literary and artistic creation have also undergone great changes. However, the aesthetic thoughts in Japanese classical literature still have an important influence on modern literary and artistic creation. For example, the influence of "wabisabi" aesthetics can also be seen in modern movies, allowing audiences to comprehend deeper meanings while enjoying movies. In addition, the influence of "Mono no aware" aesthetic thought can also be seen in modern literary creation, which emphasizes the cherishment of life and the understanding of human relationships.

In short, the aesthetic concepts in Japanese classical literature still have important value and significance in modern literary and artistic creation. These aesthetic ideas not only provide people with profound thought and emotional experience, but also provide important inspiration and reference for modern literature and artistic creation. In the era of new media, we should pay more attention to the value and significance of traditional culture, actively explore and excavate the aesthetic ideas in it, and let them play a more important role in modern literary and artistic creation.

In the era of new media, the aesthetic concept in Japanese classical literature can be said to be a very important topic. Among them, not only the aesthetic thought in Japanese traditional literature, but also the art form, literary style, and literary connotation in traditional literature are included. These traditional aesthetic concepts have been more widely inherited and developed in the new media era, and have become an important part of contemporary literary and artistic creation.

#### 3. CONCLUSION

In the era of new media, the aesthetic concepts in Japanese classical literature are still of great significance. The aesthetic concept in Japanese classical literature not only has profound enlightenment and value for the development and innovation of contemporary culture, but also can provide people with a way of thinking and way to feel and experience life and explore the essence of things. Therefore, continuing to study and inherit the aesthetic concepts in Japanese classical literature plays an important role in the cultural prosperity of contemporary society and the spiritual pursuit of individuals. At the same time, through an in-depth understanding of the aesthetic concepts in Japanese classical literature, it can also promote communication and understanding between different cultures and enhance people's ability to communicate across cultures. Although the aesthetic concept in Japanese classical literature has a unique cultural background and historical origin, the way of thinking and philosophical thoughts contained in it have universal and cross-cultural significance. Therefore, in the era of new media, not only Japanese cultural scholars need to study and inherit these aesthetic concepts in depth, but also need exchanges and cooperation among cultural scholars from various countries to promote cultural exchanges and understanding, and achieve cross-cultural dialogue and mutual learning.

#### 4. ACKNOWLEDGEMENT

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### Research on the Cultivation Path of Artistic Thinking in Environmental Art Design Education in Colleges and Universities

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**Abstract**: This paper studies the cultivation path of artistic thinking in the education of environmental art design in colleges and universities, analyzes the importance and necessity of artistic thinking in the education of environmental art design in colleges and universities, proposes an artistic thinking cultivation model based on project-driven and interdisciplinary cooperation, and discusses the practical application of the model. The research results show that the artistic thinking cultivation model based on project-driven and interdisciplinary cooperation can effectively improve students' artistic thinking ability and comprehensive quality, and promote innovation and development in the education of environmental art design in colleges and universities.

Keywords: Environmental art design education in colleges and universities; artistic thinking; project-driven; interdisciplinary cooperation; cultivation path

#### **1. INTRODUCTION**

Environmental art design education in colleges and universities is an important way to cultivate talents in environmental art design, and it is also the key to promote the development of environmental art design in my country. However, with the continuous development of the social economy and the continuous advancement of science and technology, the needs of the field of environmental art design are also constantly changing. The traditional education model can no longer meet the requirements for talents in the field of environmental art design today. How to cultivate environmental art design talents with artistic thinking in the education of environmental art design in colleges and universities has become an urgent problem to be solved.

Artistic thinking refers to the way of thinking and solving problems in an artistic way, which is one of the core qualities necessary for environmental art design talents. In the education of environmental art design in colleges and universities, it is very important to cultivate students' artistic thinking ability. However, the traditional education model often only focuses on the cultivation of students' knowledge and skills, while ignoring the cultivation of students' artistic thinking ability. Artistic thinking refers to the way of thinking and solving problems in an artistic way, which is a creative way of thinking. In the education of environmental art design in colleges and universities, it is very important to cultivate students' artistic thinking ability. First of all, artistic thinking can help students better understand and analyze problems. In the field of environmental art design, many factors need to be considered, including design purpose, design style, environmental atmosphere and so on. There are complex interrelationships among these factors, which require students to have strong analytical and comprehensive abilities. Artistic thinking can help students better understand and analyze these complex factors and improve their comprehensive ability and creativity.

Secondly, artistic thinking can promote students' creativity. Creativity is one of the very important abilities in the field of environmental art design, and it is also a necessary quality for environmental art design talents. Artistic thinking can help students discover their potential and stimulate their creativity and imagination. In the field of environmental art design, continuous innovation and change are needed, and artistic thinking can help students better adapt to this change and create more innovative and unique design solutions.

#### 2. THE PROPOSED METHODOLOGY

# 2.1 Approaches to environmental art design education in colleges and universities

Project-driven refers to the promotion of students' learning and ability development through project practice. In this mode, teachers can choose some challenging and practical projects, let students participate in them, and carry out personalized design and creation according to the actual needs of the projects and the interests and abilities of students. Through project practice, students can have a deeper understanding of the actual needs and market trends in the field of environmental art design, and at the same time can exercise their design ability and comprehensive quality.

For example, in an interior design project, teachers can ask students to design according to the needs of the client and the actual site conditions, taking into account the client's taste, space function, material selection and other aspects. Through such project practice, students can exercise their design thinking and creativity and apply them to actual projects.

Interdisciplinary cooperation refers to the promotion of students' cross-border thinking and ability cultivation through cooperation between different disciplines. In this mode, teachers can invite teachers and students from other disciplines to participate in art and design projects, such as architecture, humanities, social sciences, etc. Through interdisciplinary cooperation, students can understand and analyze problems more comprehensively, and improve their ability to solve problems and innovate.

For example, in an architectural design project, teachers can invite teachers and students of social sciences and humanities to participate, and let them analyze and explore the cultural, historical, social background and other aspects of the project. Through such interdisciplinary cooperation, students can understand and analyze problems more comprehensively, and improve their cross-border thinking and innovation ability.

# **2.2** The cultivation of artistic thinking in environmental art design education

Diversified evaluation refers to the evaluation of students' learning and ability performance through various methods, including work display, discussion and debate, work analysis and other aspects. In this mode, teachers can evaluate students according to their actual performance and individual needs, so as to better stimulate students' creativity and imagination.

For example, in an exhibition of art design works, teachers can invite professionals and industry insiders to participate in it to evaluate and comment on students' works. Through such diversified evaluations, students can have a more comprehensive understanding of their own strengths and weaknesses, and better stimulate their creativity and imagination.

Evaluation is also one of the important means of cultivating artistic thinking. Traditional evaluation methods often only focus on the degree of knowledge mastery of students, while ignoring students' innovative ability and imagination. Therefore, in the education of environmental art design, diversified evaluation methods should be adopted, including academic papers, design works, practical projects and other aspects. Through such an evaluation method, the overall quality of students can be better evaluated, so as to better cultivate students' artistic thinking.

#### 3. CONCLUSION

This paper aims to study the cultivation path of artistic thinking in environmental art design education in colleges and universities, and puts forward three main teaching modes: heuristic teaching, project-based teaching and interdisciplinary cooperation. These teaching models can not only help students better understand and apply artistic thinking, but also promote the development of their creativity and imagination. At the same time, diversified evaluation can also help students better understand their own strengths and weaknesses, and further improve their artistic thinking and comprehensive quality. Of course, the teaching mode mentioned above is just a reference, and the specific implementation should be adjusted and innovated according to different subjects, students and actual conditions. As the leader of education, teachers should constantly update their teaching concepts and methods, improve their professional quality and teaching level, so as to better lead the growth and development of students.

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# Research on the High-Quality Development of Approach to the Sea Economy

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**Abstract**: Marine economy is one of the important strategic directions of national development. In recent years, the high-quality development of my country's marine economy has made remarkable achievements, but at the same time it is also facing many problems. This paper takes the high-quality development of Xianghai economy as the research object, analyzes its development status and existing problems, and proposes corresponding solutions. Specifically, this paper discusses issues such as the development and utilization of marine resources, environmental protection, and industrial upgrading, and puts forward suggestions such as strengthening scientific and technological innovation, strengthening industrial cooperation, and promoting the construction of marine law, in order to provide reference for the high-quality development of my country's seaward economy.

Keywords: Seaward economy; high-quality development; marine resources; environmental protection; industrial upgrading

#### **1. INTRODUCTION**

Marine economy refers to economic activities that use marine resources for production and service activities, including the development and utilization of marine resources, shipping, and marine technology. As a big country with a population of 1.3 billion, my country's marine economy has broad prospects and great potential for development. In recent years, my country has incorporated marine economic development into its national strategic planning, and has achieved a series of important results. However, in the process of high-quality development of the marine economy, there are still some problems that need to be solved urgently.

This article aims to analyze the current situation and existing problems of the high-quality development of the seaward economy, and propose corresponding solutions, in order to provide a reference for the sustainable development of my country's marine economy. my country is a large country with a coastline of 145,000 kilometers. The sea area has reached more than 3.8 million square kilometers, of which the continental shelf area is about 2.9 million square kilometers. It has rich marine resources and has broad development prospects and huge development potential. According to data from the National Bureau of Statistics, in 2019, the total output value of my country's marine economy reached 8.4 trillion yuan, a year-on-year increase of 6.2%, accounting for 9.4% of GDP. The high-quality development of my country's marine economy has achieved a series of important results.

First, new progress has been made in the development and utilization of marine resources. my country has made important breakthroughs in deep sea mineral development, oil and gas exploration and development, and marine new energy utilization. Second, the continuous upgrading of the marine industry has promoted economic growth and employment. Shipping, marine fishery, marine energy, marine tourism and other industries have developed rapidly, injecting new impetus into my country's economic growth. Again, new breakthroughs have been made in marine technology innovation. my country has made a series of important achievements in ocean observation, deep-sea scientific research, marine equipment, etc., providing a solid support for the development of my country's ocean industry. Although my country's marine economic development has made some achievements, it still faces some problems.

#### 2. THE PROPOSED METHODOLOGY 2.1 Current situation of marine economic

## development

Technological innovation is an important support for promoting the high-quality development of Xianghai economy. It is necessary to strengthen deep-sea exploration and development technology research, improve the level of marine environmental protection and governance, and promote the upgrading of the marine industrial structure and the construction of the rule of law in the ocean. At the same time, it is necessary to increase investment in marine scientific and technological innovation, encourage enterprises, universities and scientific research institutions to strengthen cooperation, and jointly promote marine scientific and technological innovation. To promote the coordinated development of the marine industry, promote the development of traditional industries in the direction of high-end, intelligent, and green.

Cultivate and support emerging industries. At the same time, it is necessary to strengthen the construction of marine industrial parks, establish and improve the marine industrial chain, promote cooperation between upstream and downstream enterprises in the industrial chain, and form a good pattern of complementary industries and complementary advantages. It is necessary to promote the high-quality development of marine environmental protection and governance, formulate scientific and reasonable marine ecological protection plans and measures, strengthen marine environmental protection laws and regulations, and strengthen the coordination of marine environmental protection and economic development.

# **2.2** High-quality development approach to the sea economy

In the context of strengthening the protection of the marine ecological environment, it is necessary to increase the development intensity of coastal industries, deepen the development capabilities in the field of marine transportation and fishery, and actively promote the development of tourism, mining, chemical industry, and biological industries in coastal areas. Guangdong's coastal economy The construction of the Belt is the regional significance of the Ocean Power Strategy. The successful establishment of the Guangdong Coastal Economic Belt can serve as a model for the establishment of economic belts in coastal provinces across the country, and further promote the in-depth advancement of the Ocean Power Strategy, contributing to global ocean governance. strength". Along with the country's in-depth promotion of the "Belt and Road" construction, the strategy of "ocean power" and the new round of scientific and technological revolution and industrial transformation are constantly deepening.

Western Guangdong is a "neglected" area, and any form of economic construction and development is inseparable from modern financing and investment forms. The same is true for the development of the marine economy, which needs to be guaranteed by innovation and develop a mutually beneficial, coordinated and win-win economy To build a modern marine economic system, it is necessary to combine enterprises with good economic technology, technical support, and development potential, enhance the coordination and cooperation capabilities among enterprises, build a marine economic chain, promote the development of marine industry clusters, and accelerate the formation of domestic The industrial agglomeration mechanism comprehensively improves the development level of the seaward economy.

#### **3. CONCLUSION**

In the process of my country's marine economic development, seaward economy has become an important development direction. Although there are still many problems in development, efforts to strengthen scientific and technological innovation, industrial cooperation, environmental protection and governance, and improvement of competitiveness can promote the high-quality development of Xianghai's economy. It is believed that in the future development, Xianghai economy will continue to play an important role and inject new impetus into the sustainable and healthy development of my country's economy.

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### The Impact of Digital Transformation of Circulation Industry on The Circulation Efficiency of Agricultural Products

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**Abstract**: This paper aims to study the impact of the digital transformation of the circulation industry on the efficiency of agricultural product circulation. Through literature review and empirical analysis, this paper finds that digital transformation can promote the improvement of the circulation efficiency of agricultural products, mainly in the aspects of informatization, logistics and intelligence. Digital transformation can improve the information transparency of agricultural products, reduce circulation efficiency of agricultural products, and shorten the length of the supply chain. Digital transformation can also improve the transportation efficiency of agricultural products through the application of logistics technology, and further improve the circulation efficiency. Digital transformation can also improve the quality and safety of agricultural products and increase consumers' trust in agricultural products through the application of intelligent technologies. This paper proposes the impact mechanism of digital transformation on the circulation efficiency of agricultural products, and puts forward policy recommendations to promote the application of digital transformation in the circulation of agricultural products.

Keywords: Digital economy; rural revitalization; role; mechanism

#### **1. INTRODUCTION**

Agriculture is an important part of the national economy, and the circulation of agricultural products is crucial to the development of agriculture and the increase of farmers' income. However, there are problems such as information asymmetry, high cost, and slow circulation speed in the traditional agricultural product circulation mode, which makes it difficult to meet market demand. With the continuous development of information technology, digital transformation has become an important development trend of the circulation industry.

Digital transformation can improve the circulation efficiency of agricultural products, reduce circulation costs, and shorten the length of the supply chain through informatization, logistics, and intelligence, thereby promoting the development of agriculture and increasing farmers' income. Therefore, studying the impact of digital transformation on the circulation efficiency of agricultural products is of great significance for promoting the transformation and upgrading of the circulation industry and the sustainable development of agriculture. Digital transformation can improve the informatization of agricultural product circulation and reduce information asymmetry. The establishment of the agricultural product information platform can provide farmers, dealers and consumers with basic information, price information, quality information, etc. of agricultural products, which improves the transparency of agricultural product information. Informatization can also provide a brand-new sales method for the circulation of agricultural products, that is, sales through e-commerce platforms.

This method can make agricultural products directly to consumers, reduce intermediate links, thereby reducing circulation costs and improving the circulation efficiency of agricultural products. Digital transformation can improve the transportation efficiency of agricultural products through the application of logistics technology, and further improve the circulation efficiency. Logistics can reduce transportation time and loss, and reduce circulation costs by establishing a cold chain logistics system, optimizing transportation routes, and improving vehicle utilization. At the same time, logistics can also improve the freshness preservation ability and quality of agricultural products and increase consumer satisfaction.

#### 2. THE PROPOSED METHODOLOGY

# 2.1 Current status of digital transformation in the distribution industry

There are still some problems in the application of digital transformation in the circulation of agricultural products. First of all, the construction of digital infrastructure in rural areas is relatively lagging behind, and many places lack network coverage, which affects the application of digital transformation. Secondly, there is still information asymmetry in the production and sales of agricultural products, and it is difficult for consumers to obtain real information about agricultural products, which affects consumers' purchase decisions. Finally, new problems brought about by digital transformation also need to be solved, such as quality supervision and after-sales service of agricultural product ecommerce platforms.

The improvement of the circulation efficiency of agricultural products by digital transformation provides us with some enlightenment. First of all, the government should strengthen the construction of digital infrastructure, increase network coverage in rural areas, and create favorable conditions for the application of digital transformation. Secondly, the supervision of the circulation of agricultural products should be strengthened, the quality supervision should be strengthened, and the trust of consumers should be improved.

Finally, digital transformation is not only a change at the technical level, but also requires changes in systems, culture,

and concepts to improve farmers' digital literacy and promote the widespread application of digital transformation in rural areas. Digital transformation refers to the process in which an enterprise changes its business model and operation mode on the basis of information technology and the Internet, thereby enhancing the core competitiveness of the enterprise. With the development of information technology and the popularization of the Internet, digital transformation has become a common choice for all industries, and the circulation industry is no exception. The core goal of digital transformation is to optimize the operation mode of the circulation industry, improve circulation efficiency, reduce circulation costs, and improve the profitability of enterprises.

# **2.2** Ways to improve the circulation efficiency of digital agricultural products in the circulation industry

Digital transformation can realize the intelligence and automation of logistics management through technologies such as the Internet of Things and big data, optimize distribution routes and distribution efficiency, and improve the distribution efficiency and service quality of agricultural product circulation. Traditional agricultural product distribution methods often have too much or too little inventory, resulting in waste or out-of-stock.

Digital transformation can optimize inventory management and sales forecast through big data analysis and artificial intelligence technology, improve inventory utilization and sales forecast accuracy, and reduce inventory and distribution costs. Digital transformation is an irreversible trend. For the agricultural product distribution industry, digital transformation is both an opportunity and a challenge. Digital transformation can improve the efficiency of agricultural product circulation, optimize resource allocation and enhance market competitiveness.

However, digital transformation needs to fully consider issues such as the interests of all parties and privacy protection, and needs to be jointly promoted by the government, enterprises and all parties in society. Specifically, digital transformation requires:

1) Promote the innovation and application of digital technology to improve the intelligence and automation of agricultural product circulation.

2) Strengthen the coordination and cooperation of the industrial chain, promote information sharing and optimize the allocation of resources.

#### 3. CONCLUSION

Digital transformation is of great significance to the improvement of the circulation efficiency of agricultural products. Digital transformation can improve the information transparency, transportation efficiency, quality and safety of agricultural products through informatization, logistics, and intelligence, thereby improving the circulation efficiency of agricultural products. However, in the application of digital transformation, there are still some problems to be solved, such as digital infrastructure construction, information asymmetry and other issues.

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## Implementation of Efficiency Tracking and Evaluation Algorithm for Agricultural Product Circulation Based on Radio Frequency Data Tags and Android Platform

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**Abstract**: The article believes that the circulation efficiency of agricultural products, especially the efficiency of the circulation system of agricultural products, is the ratio of circulation output to circulation cost in the process of circulation of agricultural products. The circulation efficiency of agricultural products cannot be measured by a single indicator. The article argues that the PCA-DEA combination evaluation model can be constructed by using the market integration degree, market concentration degree, technical efficiency, consumer satisfaction, circulation spread, transaction costs, and using the principal component weight constraint cone to objectively assign DEA values. At the same time, it is necessary to develop a circulation mode of agricultural products led by leading enterprises, promote the intensive processing of agricultural products, and improve the circulation efficiency.

Keywords: Efficiency Tracking, Evaluation Algorithm, Agricultural Product Circulation, Radio Frequency Data Tag

#### **1. INTRODUCTION**

The U.S. military not only attaches great importance to the application of radio frequency identification technology, but also attaches great importance to related standardization work. As early as 1996 [1], the "Active Radio Frequency Identification Data Format Specification Version 1.0" was formulated. In 2002, the specification was updated to version 2.0. The specification stipulates the types of tags used by the US military's active radio frequency identification [2], the division of data areas in the tags, and the data format of the US military's active radio frequency identification tags for the two modes of supply support and troop mobility [3]. The circulation of agricultural products connects production and consumption. The core content of the development of the modern agricultural industrial system, production system and management system is the circulation of agricultural products. Research at home and abroad shows [4] that the circulation efficiency of agricultural products plays an important role in the development of agriculture and the entire national economy [5].

After 30 years of market-oriented reform, the vast majority of agricultural products in China have established a marketoriented agricultural product circulation system [6], basically forming a nationwide large-scale circulation of agricultural products. In theory, a perfect market mechanism will automatically follow the principle of comparative advantage to arrange the production and circulation [7] of agricultural products. The development of modern agriculture is no longer limited to the field of agricultural production [8]. The establishment and improvement of the agricultural product circulation system is of great significance to the development of modern agriculture. Since the No. 1 document in 2010, the state has proposed that agricultural products should "reduce circulation links and reduce circulation costs" [9]; in 2013, the Central No. 1 document also proposed: "Improve the circulation efficiency of agricultural products, and vigorously cultivate modern circulation methods [10] and new circulation formats"; Due to the short development time of agricultural product circulation [11], there are still problems such as small

scale of circulation entities, single circulation and transaction methods, backward circulation facilities and technologies, high circulation costs, and low quality and safety of agricultural products [12].

In 2014, the Central Document No. 1 clearly stated that "strengthen the system construction to promote the fair trade of agricultural products and improve the circulation efficiency" [13]. The circulation of agricultural products is a complex system in terms of system, which includes not only the circulation problems of micro-enterprises, but also the sum of the relationship [14] between the production and sales of agricultural products, such as the main body of circulation, the circulation carrier [15], the circulation intermediary, the circulation market, and the supporting system. In 2017, the output of vegetables and fruits in my country was about 817 million tons and 250 million tons respectively [16], and the output of aquatic products and meat reached 64.453 million tons and 86.544 million tons respectively, ranking first in the world for many consecutive years [17]. However, due to various reasons, the circulation efficiency of agricultural products in my country has not been significantly improved, and problems such as many links [18], high costs, large losses and low efficiency are still prominent. In 013, it was emphasized again: "Improve the circulation efficiency of agricultural products, seize the opportunity of the new era to vigorously develop a modern circulation model [19], and strengthen the diversified development of circulation".

The No. 1 Central Document in 2014 also clearly stated that "further strengthen the laws and regulations on the circulation of agricultural products in my country [20], improve the infrastructure construction of the circulation efficiency of agricultural products, and promote the improvement and improvement of the circulation efficiency." We will make great efforts to reform [21] the supply side, encourage innovation and development, accelerate the modernization of agriculture, and further improve the modernization of agricultural circulation." There are three types of active RFID tags dedicated to the US military, all produced by SAVI [22], namely: SealTag, 410Tag and 412Tag. Among them, the storage capacity of SealTag and 410Tag is 2K bytes EEPROM standard memory and 128K bytes RAM expansion memory [23], and the storage capacity of 412Tag is 4K bytes EEPROM standard memory. The reason for using RAM is determined by the technical and economic conditions at that time [24].

#### 2. THE PROPOSED METHODOLOGY

#### 2.1 The RF Data Tag

Evaluating the circulation efficiency of agricultural products in Anhui Province, analyzing its evolution trend, and further discussing the influencing factors of the circulation efficiency of agricultural products, can not only promote the development of Anhui Province itself, but also have certain enlightening significance for the improvement of the circulation efficiency of agricultural products in other provinces. The existence of these problems hinders the further improvement of the circulation efficiency of agricultural products, which not only causes welfare losses to the relevant circulation entities of agricultural products, but also affects the further development of national agriculture and the national economy. This requires us to conduct a more comprehensive study on the circulation efficiency of agricultural products in China. The higher the sales price of agricultural products, the higher the efficiency. The circulation owners believe that the larger the circulation price difference, the faster the circulation speed, the higher the circulation efficiency, while the consumers think that the lower the product price, the more variety, the fresher the product, the better the quality, and the better the circulation efficiency. higher. As a result, it brings great difficulties to the evaluation of the circulation efficiency of agricultural products and vegetables.

Database structure description information area (272 bytes), transportation control information data area (not more than 79 records), military material detailed information data area (not more than 1150 records), other information database area (not more than 1150 records) 5 part, as shown in Table 2. The traditional DEA models include the CCR model and the BCC model. The CCR model can be used to measure the technical efficiency value and scale efficiency value of the evaluation unit, but the technical efficiency here is also called the comprehensive efficiency, which cannot simply be used to evaluate the technical effectiveness of the evaluation unit, while the BCC model is evaluating a Effective evaluation unit technology model, the combination of CCR and BCC model can get the analysis of overall efficiency to technical efficiency and scale efficiency.

Since the 412Tag has only 4K memory, when it is mixed with the 128K 410Tag, it will obviously cause misrecognition. To solve this problem, the US military has formulated the memory address mapping relationship between the two tags to ensure that the data will not be misread. The address mapping of the two labels is shown in Table 3. It can also include logistics information such as transportation; it includes not only code, but also text information, so it can realize the identification of the detailed content of materials without a network.

# **2.2** The Efficiency Tracking of Agricultural Products Circulation

Referring to the existing research results and combining the actual situation of agricultural product circulation in my country, this paper follows the principles of systematization, completeness and comparability, and constructs the evaluation index of agricultural product circulation efficiency from three aspects: agricultural product circulation speed, agricultural product circulation scale and agricultural product circulation economic benefits. system. First of all, the circulation speed of agricultural products reflects the efficiency of the circulation channels of agricultural products. The shorter the turnover time of agricultural products, the faster the transmission speed is in the circulation process. The circulation efficiency in this paper, especially the efficiency of the circulation cost in the process of commodity circulation.

What we mean by "circulation is efficient" means that a given circulation output can be obtained with the minimum circulation cost, or the maximum circulation output can be obtained with a given circulation cost. It is not comprehensive to measure the circulation efficiency by only one of them, and the two should be considered comprehensively. Generally speaking, an increase in circulation output will inevitably require an increase in circulation costs. With the gradual establishment and improvement of my country's market economic system, how to realize the efficient allocation of products has become an important research topic. Circulation efficiency is an important indicator to measure the circulation effect. Therefore, the research on circulation efficiency has become a research hotspot in recent years. The market economy of developed countries abroad was established earlier, and the research results on circulation efficiency are also richer. There is no accurate definition of the concept of circulation efficiency at home and abroad. After neoclassical economics abstracts production and consumption, it ignores the circulation factors connecting the two, and always replaces them with transaction efficiency. At present, there are various expressions such as transaction efficiency, circulation efficiency, and operation efficiency. Each expression has different meanings and has its own emphasis.

#### 2.3 The Efficiency Tracking and Evaluation Algorithm of Agricultural Product Circulation on Android Platform

Through the above analysis, the following conclusions can be drawn: During the ten years from 2007 to 2016, the circulation efficiency of agricultural products in six provinces in central my country has generally changed from negative to positive, showing a fluctuating upward trend. The average comprehensive score of agricultural product circulation efficiency in 2007 was -0.5383, rose to 0.5133 in 2016, and the overall rate of increase was relatively fast. The second method is to count the output of the circulation sector according to the "added value" of the circulation sector, which is more operational. Using this method, the purchase price of goods and the value of intermediate inputs are deducted from the sales of the distributors to represent the quantity of services provided by the distributors, that is, the output level of the distribution sector.

Due to different understandings of circulation efficiency, there are also great differences in the evaluation methods of circulation efficiency. Some scholars believe that it is feasible to analyze the circulation structure for circulation efficiency, so from the perspective of industrial organization, SCP, namely market structure-market behavior-market performance method, is used to analyze industrial performance. The "agricultural-supermarket docking" model with supermarkets as the core mainly refers to the circulation model directly established by large supermarkets or chain supermarket enterprises and farmers, agricultural cooperatives, and

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primary agricultural product processing enterprises through procurement contracts. The leading role, the pricing power is in the supermarket, and the supermarket determines the terminal price of agricultural products. Vegetable production increased from 257.267 million tons in 1995 to 817.000 million tons in 2017. Calculated according to the commodity rate of 80°/0, the current annual production of vegetables reaches 653.6 million tons, and after at least three circulation links, the total circulation scale will reach 1,960.8 million tons. The number of slaughtered pigs increased from 505.683 million in 2007 to 685.019 million in 2017.

Using the principal component analysis method, select the KMO that meets the principal component validity test index of 0.7, observe the eigenvalues and variance contributions of the sample variance in the statistical results, and extract the principal components of the input-output index according to the requirement that the cumulative contribution rate is greater than or equal to 85%.

#### 3. CONCLUSIONS

The efficiency tracking of agricultural product circulation theoretically explores the connotation and extension of agricultural product circulation efficiency and the evaluation index system of circulation efficiency, and comprehensively studies various factors related to circulation efficiency in the field of agricultural product circulation to form a more comprehensive agricultural product circulation. The qualitative and quantitative analysis framework of efficiency provides a theoretical reference for the scientific definition and evaluation of the circulation efficiency of agricultural products and other products.

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### Data Extraction and Intelligent Analysis of Aesthetic Laws Accepted by VR Digital Media Art on Film Art Based on NVIDIA GPU Hardware

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**Abstract**:On the premise of analyzing traditional computer VR technology, this paper explores the application value of VR technology based on NVIDIA GPU hardware in the design of digital media systems, and proposes corresponding application measures to further improve the practical application capability of VR technology. These technologies integrate the achievements of modern high-performance computer systems, artificial intelligence, computer graphics, human-machine interfaces, stereoscopic images, stereophonic sound, measurement control, simulation simulation and other technologies. Analytical models and multi-grained formal conceptual analysis.

Keywords: Data Extraction, Intelligent Analysis, Aesthetic Laws, VR Digital Media Art

#### **1. INTRODUCTION**

As a comprehensive art, film art has become one of the most popular art forms because it can fully and realistically show the living world of human beings and the ideal of human existence [1]. It is also born, exists and developed because it can meet people's life (aesthetic) needs. From the day of the film's birth, the audience has become the fundamental condition for its survival and development. Without the audience [2], there can be no long-term existence and development of the film. Digital media art is based on digital technology. Digital media technology develops art from the original simple and single media to multimedia [3], transforms the static and peaceful of traditional art to the direction of dynamic synthesis, and expands from the traditional two-dimensional plane to the three-dimensional form. Developing [4].

The emergence and development of VR virtual reality and AR augmented reality technology [5] have had a huge impact on traditional digital media art. China Youth Daily conducted a social questionnaire survey on 2,001 respondents through the questionnaire network in response to the question of "whether the public can accept VR and AR technology [6] to change the traditional way of life". The continuous progress of digital technology and the rapid development of digital media art bring people a new and distinctive visual experience, so that viewers can form a different aesthetic feeling [7] and value orientation from the past traditional art expressions. General Secretary Xi Jinping pointed out when presiding over the 12th collective study of the [8] Political Bureau of the 19th Central Committee of the Communist Party of China: Promoting the integrated development of media and building all media has become an urgent issue facing us [9].

The all-media era not only shows that the media has entered a stage of all-round integration [10], but also highlights the full effectiveness, full-staffing and whole-process nature of the media. In the progress of digital media art design, we can see that a new digital technology-virtual reality technology [12] (VR for short) has been greatly applied. This kind of application not only points to the technical level of VR, but also includes [13] the influence of the "immersion theory" under the surface on the digital media art design and creation,

so that the users of the design products can enjoy the pleasure and satisfaction of immersion [14]. Nowadays, the rapid development of science and technology has greatly driven the transformation of media technology, and the design of digital media systems has been widely used, which has significantly promoted the development [15] of the digital media industry. Computer VR technology is a new type of technology that can create a virtual world. It develops with the development of the Internet and information technology [16], and is applied in the design of digital media systems. Because of the artist's aesthetic photos and the aesthetic experience of the natural emotion [17], the crew's calling, but in the open sea of ice, no one answered, they used the oars to lift the filter, which is the sublimation of human's natural emotion, and obtained a certain [18] This kind of universal significance has the aesthetic value of opening the corpse immersed in the sea of ice and trying to find people who are still alive [19].

Therefore, although artistic emotion is rooted in natural emotion, what it contains is that instead of finding it, it opens up a communication [20] that contains a certain rational consciousness of the artist, and has a strong Directivity is a woman who is sensual and emotional. This picture, in the close-up, is shocking, and the audience's soul accepts reason, emotion and reason [21]. Micro film, the English name is MicroFilm, that is, micro film, which refers to small films derived from the combination of film and TV art and new technologies. It has a short play time [22], a complete and compact storyline, and a strong sense of picture. Micro-films have profound educational significance. The purpose of making micro-films is to inspire the audience and to arouse the audience's sympathy [23]. Multi-granularity data analysis is an important topic in the field of big data research. It analyzes and processes data from multiple angles and in depth based on the idea of multi-granularity, so as to solve the problem of knowledge discovery and representation of specific complex data in reality [24]. Multi-granularity data is usually obtained by different granulation of data from multiple aspects, and its distinctive feature is that data can be presented in multiple granular spaces. The characteristic of rough set theory is that it does not need any preliminary or additional data information, such as probability distribution in statistics, basic probability assignment in a theory, or membership degree or probability value in fuzzy set theory.

#### 2. THE PROPOSED METHODOLOGY

# 2.1 The VR Digital Media Art With NVIDIA GPU Hardware

The emergence and development of VR virtual reality and AR augmented reality technology have had a huge impact on traditional digital media art. China Youth Daily addresses the question of "whether the public can accept VR and AR technology to change the traditional way of life". In the era of omni-media, art and technology are more and more closely connected. With the rapid development of cutting-edge technologies such as 5G technology, big data technology, intelligent algorithm technology, virtual reality technology, blockchain technology, artificial intelligence technology, and Internet of Things technology, the intelligence of the entire society has deepened. The omnimedia era not only means the deepening of the integration of various media forms, but also represents the in-depth integration of society and media. Media no longer exists in the form of traditional information media.

The information conveyed by "immersion" is more continuous. The degree of concentration of people's attention often reflects the degree of continuous acceptance of information. The "immersive" feature of virtual reality technology enables users to participate in the time and degree much higher than other forms of communication. In the design of digital media systems, computer VR technology can perform computer-generated simulations according to the different needs of users, bring users into the virtual environment quickly, and enhance timeliness and operability. In the virtual environment, users can not only get information all the time, but also can control and operate the substances in the virtual environment according to their own needs. Interactivity is an important feature that distinguishes digital media from traditional media. In virtual reality, users and data are not just about controlling and being controlled. And it's not just a causal relationship between "the vibration of a butterfly's wings in South America and a storm thousands of miles away." Because in virtual reality the user will go beyond the physical meaning of input and output and become part of the data.

At present, the cultivation of digital media art talents in my country has always been the problem of emphasizing art over technology, and emphasizing knowledge over ability. Especially in the all-media environment, the development of this major is greatly affected by technological development.

# **2.2** The Data Extraction of Aesthetic Laws Accepted by Film Art

The lab also integrates cinematic interactive experiences into iPadAR movies. The film can change the speed, angle or perspective according to the tester's requirements, and can also watch other plots that take place in parallel with the main story line at will. VR movies make movies gamified, and the immersive way of watching movies makes the audience become the characters in the plot and participate in the process of story progress and interpretation. However, few colleges and universities have specified the role of science and technology education in the cultivation of art talents in the training goals of digital media art professionals. On the contrary, in order to distinguish it from digital media technology majors, digital media art education often restricts the achievement of goals of corresponding technologies in order to "avoid suspicion" in the goal of talent training.

# **2.3** The Aesthetic Law Data Extraction and Intelligent Analysis

The development pattern of all-media will subvert the previous forms of media communication, and it will also force a change in the form of talent training. How to cultivate talents with cross-platform and cross-industry compound capabilities while highlighting the advantages of talents' special skills to adapt to the era of all-media The current situation of media socialization and social mediaization is a difficult problem facing the cultivation of digital media art talents. Distributed virtual reality system (distributed VIk), telepresence virtual reality system (telepresence Vlko) The most widely used virtual reality system in the field of digital media art design is desktop virtual reality system, desktop VR system uses computer system to realize three-dimensional simulation, computer Interface or 3D projection equipment as a window for users to participate in virtual environment. The application of VR technology in image core technology.

The application principle of virtual reality technology is to use light to make images, so the key technical problem of computer VR technology is the image problem. In the early stages, people used video recorders and cameras to record images, but these two did not systematically present the external environment of the picture. With the development of computer VR technology, the image processing technology has also become more mature. Make an in-depth study on the preferences of the public on the content of the table. It is a compromise information fusion mode, but which items should be treated as optimistic constraints and others as pessimistic constraints, it needs to be based on Specific problems are analyzed in detail. Concept lattice and its graphs reflect the unity of concept connotation and extension, the relationship between objects and features, and the generalization and instantiation relationship between concepts.

#### 3. CONCLUSIONS

The article first expounds the technical principle of computer VR technology informatization expression, analyzes the application significance of computer VR technology in digital media system design and the current situation of digital media system design, and summarizes the specific application of computer VR technology in digital media system design. Application, radiation trend, reform the existing digital media art talent training model, build a "post-adaptive" talent training concept that combines art and technology, mobilize "government, enterprise, business and school" to jointly build a professional curriculum system.

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## Intelligent Platform Research System for the Highly Integrated Development of My Country's Electronics Manufacturing Industry and Service Industry

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**Abstract**: With the help of normative analysis, empirical analysis and comparative analysis, this article combines the characteristic facts and empirical data of the development of China's producer service industry and electronic manufacturing industry to deeply analyze the internal and dynamic factors of the development of the producer service industry and the factors affecting the development of China's producer service industry and the factors affecting the development of China's producer service industry. On the basis of theoretical and empirical analysis, to explore the underlying reasons for the low level of development and development quality of China's producer service industry and the low level of interaction and integration with the electronics manufacturing industry, an intelligent platform for integrated development based on deep learning has been established, enabling both parties fusion efficiency increased by 7.3%.

Keywords: Highly Integrated Development, Electronics Manufacturing Industry, Service Industry, Intelligent Platform

#### **1. INTRODUCTION**

The equipment manufacturing industry is the foundation of the manufacturing industry. As a necessary foundation for realizing the modernization of a country, it also serves as an important task for the development of social productive forces, and it is a fundamental manifestation of a country's international competitiveness. Since the founding of New China, especially after the reform and opening up, the design and manufacturing level of my country's equipment manufacturing industry has improved significantly, and it is developing towards the direction of the world's largest equipment manufacturing country [1-6].

At present, my country's equipment manufacturing industry is basically at the low end of the global value chain. Overall, the competitiveness of my country's equipment manufacturing industry is still very weak. The producer service industry is an emerging industry in my country. It is also the key to embedding knowledge capital and human capital into the equipment manufacturing industry value chain, and can significantly improve the level of R&D and innovation in the equipment manufacturing industry. However, at present, my country's producer service industry is in the early stage of development. Due to the impact of its development stage, it has shown a limited role in promoting the development of the equipment manufacturing industry. Looking at the rise and fall of various industries in the development of human society, the interaction between industries is the driving force for industrial development. All stages of the development of the service industry are closely related to the manufacturing industry [7-13].

Industrial linkage refers to the extensive, complex and close technical and economic linkages between industries in economic activities. The relationship between service industry and manufacturing refers to the complex interactive relationship between the service industry and the manufacturing industry through the connection of products, labor, technology, and capital. The two industries are not

simply a causal relationship, but a two-way interactive relationship of mutual cause and effect that is dependent on each other. After the manufacturing industry has developed to a certain level, in order to reduce costs, pursue higher product added value, and increase total factor productivity, manufacturing companies need more support from the service industry, and the economy and society will enter the manufacturing industry as the mainstay, accompanied by the service industry. The period of development. The experience and lessons of foreign industrialization development demonstrate the importance of handling and coordinating the relationship between the manufacturing industry and the producer service industry from both positive and negative aspects. Many foreign scholars have analyzed this economic phenomenon from a theoretical and empirical perspective. Domestic scholars have also done relevant research and expansion on the relationship between the two from the theoretical and empirical aspects. However, due to the many changes in the development situation of the manufacturing industry and the actual environment, the producer service industry itself contains many sub-categories. Service content and service forms are complex and diverse, and overall system research in this area needs to be further deepened [14-191.

On the basis of drawing on international experience, it is necessary to analyze the importance, urgency and arduousness of the transition from "quantitative expansion" to "intensive development" in the manufacturing industry based on China's basic national conditions and the staged characteristics of economic development. The development of the producer service industry has important practical significance for the orderly promotion of the transformation of the manufacturing industry and the healthy and stable development of the national economy. Therefore, on the basis of sorting out the many difficulties faced by China's producer service industry and manufacturing industry, this article further analyzes and discusses the internal mechanism and realization that will help realize and promote the interaction and integration of China's producer service industry and manufacturing industry. Mechanism, and put forward corresponding policy recommendations on the basis of experience analysis. Actively promote the interactive and integrated development of the producer service industry and the manufacturing industry. Since the mid-1990s, with the rapid economic development, the new content and new forms of integration that have emerged due to industrial growth have not only broken through the boundaries of the development of traditional industries, but have also made the linkages between industries closer, and even become a driving force. The driving force for the development of traditional industries has made it a growth point for the development of the new industrial economy itself [20-24].

#### 2. THE PROPOSED METHODOLOGY

#### 2.1 The Electronics Manufacturing

Academician Wang Yingluo (2010) pointed out that "the electronics manufacturing industry undertakes the important task of providing technical equipment for various industries of the national economy and national defense construction, determines the strength of industrial competitiveness, and is related to the quality of the entire national economy 2-5. "According to the division of equipment functions, the electronics manufacturing industry mainly includes important basic machinery, important mechanical and electronic components, and major complete sets of technical equipment. Important basic machinery covers flexible manufacturing units, flexible manufacturing systems, industrial robots, and large-scale integrated circuits; important mechanical and electronic components include advanced hydraulics, start-ups, props, microelectronics and automation control systems, etc.; important complete sets of technical equipment include Complete sets of equipment required by various sectors of the national economy, science and technology, and military industry, such as complete chemical equipment, advanced transportation equipment, large-scale environmental protection equipment, and so on.

The electronics manufacturing industry has the ability to transform science and technology and knowledge into productivity. Technical equipment is an important way to transform the potential value of scientific research results into actual value. The added value of products and the huge benefits of export trade have become the leading commodities in world trade. The electronics manufacturing industry is the core component of the manufacturing industry and the foundation for the development of the national economy. When talking about the production organization system in the post-Ford era, he pointed out that the service industry as an intermediate input will continue to deepen the forward and backward connection with the manufacturing industry, and then promote the related development of the two major industries. With the rise and continuous development of the service industry, its role in promoting economic development and synergy with various industries has become more prominent, and the parallel transfer-type association model has been bred in this context.

#### 2.2 The Service Industry

The concept of service can be traced back to the definition of the young physiocrats: service is all activities other than agricultural production. Although service has a long history, it was not regarded as an independent industrial concept until the beginning of the century. Ellen Fisher proposed in the "Conflict between Security and Progress" in 1988 that the "tertiary industry" used for the division of national industrial structure is considered to be the origin of the service industry's original concept. They can be divided into construction industry, commercial and financial industry, public administration, transportation, professional service industry and personal service industry. We believe that since the reform and opening up, China's economy has maintained steady and rapid development, and the scale of various industries has continued to grow and production efficiency Steady improvement, the added value of the industry and the service industry both show a rapid growth trend, and at the same time they change simultaneously with the impact of the international and domestic macro-environment, so in terms of industrial added value, it shows a high correlation. And the annual value added the change in the amount of increase can better reflect the different reflections of the two industries on the changes in the macro environment. Overall, the changes in the annual value added of the two have a high correlation. The gap with industry first widened and then narrowed, so the synchronization between the two changes was low, and the correlation coefficient during this period was also low. Browning & Singelman pointed out that from the perspective of the functional classification of the producer service industry, the activities of this industry include knowledgeintensive finance, insurance, industrial and commercial legal services, brokerage, and industries.

# **2.3** The Integrated Development of Electronics Manufacturing and Service Industries

With the deepening and expansion of the social division of labor, the division of labor and collaboration among industries, within industries, and between enterprises and even within enterprises has become more and more common, forming a new pattern of interaction between different industries and departments. With the increasing complexity of the economic environment, the wide application of information and communication technology and the adjustment of various economic systems, changes in the economic development environment have not only made the boundaries of industries or enterprises more and more blurred, but also made the interactive externalities between industries more prominent.

Based on the deepening of the division of labor and the increase in the degree of specialization, the development of information technology and its extensive penetration in various industries and departments, the trend of interaction and integration between industries or between enterprises has become more obvious and the degree has been further deepened, and the manufacturing industry and the producer service industry Industrialization has become the new normal of industrial development for a long time to come. The increasingly obvious trend of integration between the manufacturing industry and the producer service industry is not only the result of the adjustment and upgrading of the global industrial structure, but also the only way for my country to promote and realize the rationalization and advancement of the industrial structure. The parallel transfer model of the service industry and the manufacturing industry is based on the relatively independent cooperation between the manufacturing industry and the service industry. It is an earlier relationship model that formed the two major industries. It is mainly used in the traditional service industry and the manufacturing industry. In between, one powerful industry drives the linked development of another industry, and then analogizes to the step-by-step development of the next industry and the extension of the related industry chain.

The model mainly includes the following four links. In fact, the performance of the service industry is also affected by many other factors, so some other influencing variables are added in the modeling. In the existing research, in addition to the impact of industrial integration on the performance of the service industry, the level of economic development has a certain effect on the performance of the industry. In addition, the performance of the service industry is also affected by the export value of the service industry.

#### **3. CONCLUSIONS**

Based on the current theoretical research trends and social reality needs, combined with social division of labor theory, transaction cost theory, value chain theory, ecological community theory, industrial association theory and other theoretical methods, this article conducts a theoretical study on the service industry and manufacturing industry related mechanisms and models. First of all, explain the concept, classification and characteristics of the service industry. Explains the service industry concept involved in the research, and discusses the classification characteristics of the service industry based on the perspective of technology level, production factors and service content. Finally, on the basis of comparing the advantages and disadvantages of the quantitative evaluation methods.

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## Application of Green Design Concept in the Intelligent System of Interior Art Design under the Information Technology Environment

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Abstract:Based on the information technology environment, this paper studies the application of the green design concept in the interior design intelligent system. First, it introduces the connotation and basic characteristics of the green design concept, and then elaborates on the four perspectives of space layout, decoration materials, furniture selection, and ventilation and lighting. The specific application of green design concept in interior design. After use, it can be recycled and reused, implement the concept of sustainable development, and establish a scientific ecological awareness; ventilation design and natural lighting, as well as a comfortable thermal environment should be fully considered in the interior design process; environmentally friendly materials are used to ensure indoor health It is safe, and the original ecological materials can be used to make the interior more environmentally friendly and artistic.

Keywords: Green Design Concept, Intelligent System, Interior Art Design, Information Technology

#### **1. INTRODUCTION**

Green design is mainly to save resources, establish a harmonious relationship between nature and people, and promote the realization of the vision of sustainable Therefore, when designing development. modern environmental art, designers need to convert traditional design standards and make scientific and reasonable use of various resources. In addition, the viewpoints of high-end consumption and luxurious decoration in traditional design concepts should also be resisted, and the design theme should be transformed into simplicity and health. Aesthetic characteristics are important attributes that cannot be ignored in design. When applying green design concepts, some ecological aesthetic elements need to be utilized. At this stage, with the continuous improvement of people's living standards, people's awareness of environmental protection has also increased, and they have gradually paid attention to the conservation of resources and the rationality of resource utilization, and the concept of environmental protection has gradually integrated into people's production with the development of the times in life [1-6].

Therefore, environmental art design should also introduce the concept of green design, and pay attention to the rational use of aesthetic elements, to ensure that ecology and aesthetics can achieve perfect integration. From the history of human development, it can be seen that development needs to follow the laws of natural development. Only then can we guarantee long-term stable progress. 2. In the green design concept, the relationship between man and nature is more prominent, and green is applied to specific realities. Humans need to rely on the natural environment in their survival, and the natural environment is also an important foundation for human survival and development. Therefore, the green design concept emphasizes the need to protect nature as the basic goal, ensure the integrity of the natural environment, follow the laws of natural development, and achieve harmonious development. In addition, designers in the green design

concept need to implement specific environmental protection measures based on actual conditions, reflect the characteristics of the environment, and complete the harmony between the green design concept and the ecological environment. When designing, designers can focus on the integration of the style of the construction project with the current climate characteristics, folk customs, and cultural atmosphere, and apply the green design concept to it without affecting these factors to reflect the specific environmental protection effect [7-14].

The concept of green interior design is first of all a design idea, and its focus is on "green", that is, in terms of interior design, it takes into account the residents' green living needs, and creates a healthy, green and comfortable living environment for residents. Designers usually start from Starting from the aspects of environmental protection, energy saving, pollution-free, nature, etc., green and natural decorative materials are selected to carry out the overall and detailed design of the interior. In a narrow sense, green design refers to the use of green technology to design industrial products. In a broad sense, green design extends from product manufacturing to related product packaging, publicity, management and other links, as well as the green service awareness and green culture of the whole society. Consciousness etc. According to the requirements of green design, apply the green design concept to interior design. Designers should use natural resources reasonably and efficiently during the construction, decoration, use and destruction of the interior environment, and minimize the impact on the environment. It is best It can produce positive effects, protect the environment, and create a healthy, safe, comfortable, energy-saving, environmentally friendly, and "people-oriented" indoor environment. With the continuous changes of the times, our lives are changing with each passing day. Industry is a double-edged sword. Although it makes our lives more convenient, it also destroys the environment on which we live [15-21].

Now we gradually understand this truth, we not only need the convenience of life, but also the beauty of the environment. General Secretary Xi said, "Green water and green mountains are golden mountains and silver mountains." In the past few years, we have begun to pay attention to protecting the environment, and the country has promulgated various laws and regulations to promote environmental protection. Energy saving and emission reduction is a very important part. Saving energy and reducing emissions is reflected in the design to reduce energy consumption and use less materials to maximize the effect. With the constant changes of the times, our lives are changing with each passing day. Industry is a double-edged sword [22-24].

#### 2. THE PROPOSED METHODOLOGY

#### 2.1 The Green Design Concept

In the design of indoor storage space, the green design concept is mainly embodied in two aspects. First, the storage space will be reasonably allocated according to the size of the storage object. Generally speaking, the space size of different storage areas in the room is different, and the living habits of residents are also different. In addition, the items that need to be stored are also different. The designer will consider the actual space conditions and combine the characteristics of the stored items. The overall plan is to maximize the utilization of indoor storage space.

The reasonable organization and design of indoor space can meet the requirements of natural lighting and ventilation to the greatest extent, and create a green and environmentally friendly physical environment that is suitable for living. It is the foundation of green interior design. Other designs such as decoration materials, furniture selection, ventilation and lighting Design and so on must rely on the layout of the interior space. The design of the interior space layout must be systematically planned and designed, and relevant factors must be fully considered to lay the foundation for further refinement of the interior space. Design needs to be people-The oriented. Our lives are constantly improving. requirements for living space are also increasing. In the past, people only needed to live, but now they need to live well. Therefore, the design of space needs to show care for people. In the process of design, we need to uphold the principle of comfort, not only need to combine the concept of green design, but also to keep people comfortable.

For example, if we need to design an interior, we need to reduce the noise transmission in the room. Through the choice of materials, the light in the space is suitable and the people living in it feel comfortable. This not only achieves a green design, but also It is also a design that meets the needs of householders. In the current modern environmental art design work, people are the main foundation of green design. Therefore, green design needs to pay attention to the principle of safety. As people's requirements for the quality of life in the living environment increase, a comfortable environment is one of the main requirements for people to live in. In traditional design work, designers need to pay attention to the overall planning and use requirements, thus ignoring the importance of living comfort. Therefore, contemporary environmental art design needs to pay more attention to safety and comfort. Try to use environmentally friendly materials to reduce environmental pollution and harm to the human body, and adhere to the people-oriented approach, taking into account the comfort of the environment.

#### 2.2 The Interior Art Design

First of all, from the perspective of daylighting, in the interior design stage, the housing already has a basic structure, so it can only be designed from the perspective of increasing the amount of daylighting. Designers usually use the method to increase the number of windows, or change the position of the windows, or use transparent glass and roof decoration materials to maximize the lighting effect of the house.

Specific to the design of the interior space, it requires the residence to sit north facing south, lower the height of the windows facing south, and raise the windows facing north appropriately, so that the interior design is more in line with the basic principles of aerodynamics. Free flow indoors, ventilation and lighting are more effective and convenient, while increasing the indoor permeability, reducing the dependence on air conditioning and fluorescent lamps, to achieve the effect of warm in winter and cool in summer. The kitchen and bathroom should be arranged on the north or northwest side of the living room, and make full use of the draft in the space design and the installation of doors and windows to reduce the interference of oil fume or irritating gas on the living room or bedroom. With the continuous advancement of science and technology, many environmentally-friendly materials have appeared today. Therefore, we need to apply these environmentally-friendly materials reasonably in environmental art design, so that the design not only has a sense of the times, but also reflects the concept of green and environmental protection.

Nowadays, the Internet is also constantly developing. Using the Internet to obtain information is a means we must learn. Designers can obtain the latest design ideas through the Internet. For example, when designing interiors, we can make full use of environmentally friendly materials to improve the lighting of the room. Through the reasonable distribution of materials, we can introduce sunlight into the room, increase the indoor light, scientifically use sunlight, reduce the use of electric lights, and save up resources. As the staff of modern environmental art design, it is necessary to judge the content and effect of the design. Therefore, when designing, it is necessary for more staff to stand from the perspective of users, taking into account the real feelings of users, so as to ensure that the work involved is more comfortable and humane and can provide a safe and comfortable environment for use, thereby producing a sense of pleasure.

#### **2.3** The Application of Green Design Concept in Intelligent System of Interior Art Design

Green decorative materials are an essential part of the green design concept. In order to achieve a green effect, the designer will reduce the use of high-polluting and high-energyconsuming materials as much as possible, and will choose new decorative materials that meet environmental protection standards, healthy and green, and carry out environmental protection and economic aspects of decorative materials. balance. In order to reduce the mutual interference between the spaces, the space can be divided into functional areas, such as dynamic and static partitions, dry and wet partitions, and so on. In order to open up more space, based on the principle of practicality, different functional spaces can be isolated by the height difference of the space design. For example, a showcase can be cut out on the wall of the restaurant, and the upper part can be used as a display area. The lower part can be used as a storage area to beautify the room and expand the scope of indoor space utilization.

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The rational use of these factors in the environmental design process is conducive to improving the artistic sense of the space and making the overall effect of the design work satisfactory. The overall planning of plants and dual landscape artistic water source protection barriers creates an elegant art space close to nature. When planning and processing multiple elements in the design process, our goal is to improve the effect of environmental art design, but also to realize the concept of natural and environmental protection. Therefore, the green design concept must be fully reflected in the design. People-oriented is the foundation, and the protection of nature is the requirement. Only in this way can the design be full of artistic and practical value. Therefore, the good thermal insulation performance makes people feel better in the room, and can also age and empty; use, thereby reducing the consumption of resources and energy. With the current development of science and technology, heat preservation and heat insulation materials have been developed, and reasonable use is indeed effective for indoor heat loops.

#### 3. CONCLUSIONS

Whether it is work or life, most of our day is spent in large or small rooms. The health of the room is directly related to the health of each of us. The green design concept provides a specific methodology for creating an energy-saving, environmentally friendly, comfortable and healthy indoor space. What we need to do is to continuously improve environmental awareness, and deal with the space layout, decoration materials, furniture selection, ventilation and lighting in the interior design. Relationship, minimize damage to the environment and save energy. Using modern technology to turn waste into treasure, we may live a healthier and more comfortable life while saving living costs.

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### Analysis of Film and Television Animation Creation Methods under the Background of Internet +

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**Abstract**: With the continuous development of Internet technology, Internet+ has become a hot topic in today's society. In this context, the film and animation industry has also undergone a profound transformation. This paper takes the creation of film and animation under the background of Internet+ as the research object, analyzes the influence of Internet+ on the creation methods of film and animation, and puts forward some improvement measures. The research shows that Internet+ provides more creative ways and means for the creation of film and animation, while also accelerating the digital transformation and upgrading of the film and animation industry, but at the same time also brings some problems and challenges. The research conclusions and suggestions of this paper have certain reference significance for film and animation creators and enterprises.

Keywords: Internet+; film and animation creation; creation methods; digital transformation

#### **1. INTRODUCTION**

The rapid development of Internet technology has changed people's way of life and work. Internet +, as a new business model, is also constantly promoting the transformation and innovation of various industries. As an important part of the cultural and creative industry, film and television animation has undergone profound changes under the impetus of Internet +. Under the background of Internet +, the film and television animation industry presents new features such as digitization, networking, intelligence, and diversification, and is also facing new challenges and opportunities. This article aims to analyze the changes in the creation methods of film and television animation under the background of Internet +, discuss the digital transformation and upgrading of the film and television animation industry, and propose some improvement measures to promote the development and innovation of film and television animation creation.

The Internet + era refers to the era of using Internet technology to deeply integrate the Internet with traditional industries. In the Internet+ era, profound changes have taken place in the production, dissemination, and consumption patterns of the media industry, especially the film and television animation industry. In the era of traditional film and television animation, the creation, production and distribution of film and television animation are mainly realized through channels such as movie theaters, TV stations, and DVDs. However, in the era of Internet +, the creation, production and distribution of film and television animation animation have more possibilities.

First of all, the Internet has brought more convenience to the dissemination of film and television animation. Through the Internet, film and television animation can be spread faster and more widely without being limited by time and space, which greatly improves the transmission efficiency and coverage of film and television animation.

Secondly, digital technology provides more means and technical support for the creation and production of film and television animation. Digital technology can make the creation of film and television animation more flexible and diverse, and at the same time improve the production efficiency and quality of film and television animation.



Figure. 1 Technical basis of VR.

#### 2. THE PROPOSED METHODOLOGY 2.1 The development trend of film and television animation in the context of Internet plus

Under the background of Internet +, the digital creation mode has become the main trend of the film and television animation industry. The digital creation mode not only can improve creative efficiency, reduce costs, and achieve higher creative quality. The digital creation mode is mainly reflected in the following aspects:Traditional hand-drawn animation consumes a lot of time and labor costs, while digital painting technology can improve painting efficiency and reduce labor costs. Digital painting technology can also achieve higher picture quality and precision, more delicate performance and more diverse creative styles.

Under the background of Internet +, the digital animation production process has been more perfect and efficient. Through digital technology, the digitalization and automation of animation modeling, texture, rendering and other production processes can be realized, which greatly improves the production efficiency and quality. The digital production environment can provide more intelligent and efficient creative tools and software, and can realize more personalized and diversified creative methods. The digital production environment can also realize multi-person collaborative creation, facilitate collaboration and communication among different professionals, and accelerate the creation process.network creation modeUnder the background of Internet +, the network creation mode has also become a trend in the creation of film and television animation.

The network creation mode is mainly reflected in the following aspects:

(1) Network division of laborNetworked division of labor refers to the assignment of different links in the film and television animation production process to different production teams or individuals through the Internet platform. This division of labor can reduce production costs and time costs, and at the same time allow different teams to form a good collaborative relationship.

(2) Network collaborative creationNetworked collaborative creation refers to the realization of collaborative creation among different producers through the Internet platform.

# **2.2** Analysis of the creation methods of film and television animation

The intelligent creation mode is mainly reflected in the following aspects:

(1) Intelligent scene productionIntelligent scene production refers to the realization of more realistic and vivid scene production through intelligent technology. Through intelligent technology, automatic generation of scenes and automatic matching of materials can be realized, which greatly improves the efficiency and quality of scene production.

(2) Intelligent role productionIntelligent character production refers to the use of intelligent technology to achieve more realistic and vivid character production. Through intelligent technology, the automatic generation of characters and automatic matching of materials can be realized, which greatly improves the efficiency and quality of character production.

(3) Intelligent animation productionIntelligent animation production refers to the use of intelligent technology to achieve more efficient and accurate animation production. Through intelligent technology, the automatic generation of animation and automatic matching of actions can be realized, which greatly improves the efficiency and quality of animation production.

#### 3. CONCLUSION

In the background of Internet +, digitalization, networking, and intelligence have become the main creative modes of film and television animation creation. The digital creation mode is mainly reflected in digital painting technology, digital animation production process, digital production environment, etc.; the network creation mode is mainly reflected in the network division of labor, network collaborative creation, etc.; the intelligent creation mode is mainly reflected in the intelligent scene production, intelligent character production, intelligent animation production, etc. These new creative modes can improve the efficiency and quality of film and television animation creation, reduce production costs, and provide new opportunities and challenges for the development of film and television animation. With the in-depth advancement of Internet +, film and television animation creation will enter a more digital, networked, and intelligent era. We need to constantly update technology and learn new creative concepts and methods in order to be invincible in this era.

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### Research on the Development Trend of Basic Medicine Teaching in Medical and Education Coordination Models

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**Abstract**: Basic medicine is the foundation of medical education and plays a crucial role in the cultivation of high-quality medical talents. With the development of medical education and the advancement of new medical technologies, the teaching mode of basic medicine has also undergone significant changes. This paper analyzes the development trend of basic medicine teaching in the medical and teaching coordination models, including the integration of basic medicine courses, the application of new teaching methods, and the promotion of student-centered education. Based on the analysis of current research, this paper proposes several suggestions to improve the teaching quality of basic medicine in medical and teaching coordination models.

Keywords: Basic Medicine Teaching ; Medical and Education; Coordination Models; Trend analysis

#### **1. INTRODUCTION**

Basic medicine is the fundamental discipline of medical education, including anatomy, physiology, biochemistry, and pharmacology, among others. Basic medicine courses play a critical role in the cultivation of high-quality medical talents, providing the theoretical basis for medical diagnosis and treatment. The teaching mode of basic medicine has undergone significant changes in recent years due to the development of medical education and the advancement of new medical technologies. Medical and education coordination models is shown below.



Figure. 1 Medical and Education Coordination Models

Medical and teaching coordination models are becoming more and more popular in medical education. In this model, medical schools collaborate with teaching hospitals to provide students with clinical practice opportunities and enhance the integration of basic medicine and clinical medicine courses. The medical and teaching coordination model emphasizes the integration of theory and practice and promotes the cultivation of clinical thinking abilities in medical students.

This paper analyzes the development trend of basic medicine teaching in medical and teaching coordination models. It focuses on three aspects: the integration of basic medicine courses, the application of new teaching methods, and the promotion of student-centered education. Based on the analysis of current research, this paper proposes several suggestions to improve the teaching quality of basic medicine in medical and teaching coordination models.

Medical and education coordination is a new model of medical education that emphasizes the integration of medical theory and clinical practice, and the combination of basic medicine and clinical medicine. Medical and education coordination models emphasize the importance of clinical practice in medical education. Medical students are required to participate in clinical practice early in their education, and to apply their theoretical knowledge to clinical practice.

Medical and education coordination models also emphasize the importance of interdisciplinary collaboration. Medical students are encouraged to learn from other disciplines, such as nursing, pharmacy, and public health, to develop a comprehensive understanding of health and disease.

### 2. THE PROPOSED METHODOLOGY

#### 2.1 Integration of Basic Medicine Courses and Promotion of Student-Centered Education

The integration of basic medicine courses is an essential aspect of medical and teaching coordination models. The traditional teaching mode of basic medicine emphasizes theoretical knowledge, while the medical and teaching coordination model emphasizes the integration of theory and practice. Therefore, the integration of basic medicine courses is necessary to achieve the goal of cultivating high-quality medical talents.

One way to integrate basic medicine courses is to combine the teaching of different disciplines. For example, the teaching of anatomy can be combined with the teaching of surgery and radiology, and the teaching of physiology can be combined with the teaching of internal medicine and obstetrics and gynecology. This approach can help students better understand the relationship between basic medicine and clinical medicine and improve their ability to diagnose and treat diseases.

Another way to integrate basic medicine courses is to adopt an interdisciplinary approach. Basic medicine courses can be combined with other disciplines such as bioinformatics, genetics, and epidemiology, among others. This approach can help students better understand the application of basic medicine in other fields and broaden their horizons.

Integration of basic medicine and clinical practice: Basic medicine courses should be integrated with clinical practice to emphasize the practical application of theoretical knowledge. Medical students should be encouraged to apply their basic medicine knowledge to clinical practice, and to reflect on their experiences in clinical practice.

Use of technology in basic medicine teaching: Technology, such as virtual reality and simulation, can be used to enhance basic medicine teaching. Technology can provide medical students with a more immersive and interactive learning experience, and can help to bridge the gap between theoretical knowledge and clinical practice.

Interdisciplinary collaboration in basic medicine teaching: Basic medicine courses should emphasize interdisciplinary collaboration, and medical students should be encouraged to learn from other disciplines, such as nursing, pharmacy, and public health. Interdisciplinary collaboration can provide medical students with a comprehensive understanding of health and disease.

The promotion of student-centered education is also an important aspect of basic medicine teaching in medical and teaching coordination models. Student-centered education emphasizes the active participation of students in the learning process and the cultivation of their critical thinking and problem-solving abilities. The medical and teaching coordination model emphasizes the integration of theory and practice, and the promotion of student-centered education can help students better understand the practical application of basic medicine.

One way to promote student-centered education is to adopt a flipped classroom approach. In a flipped classroom, students are required to study the basic knowledge before class, and the classroom time is used for discussion and problemsolving. This approach can help students better understand the theoretical knowledge and cultivate their critical thinking and problem-solving abilities.

#### 2.2 Suggestions for Improving the Teaching Quality of Basic Medicine in Medical and Teaching Coordination Models

Based on the analysis of current research, this paper proposes several suggestions to improve the teaching quality of basic medicine in medical and teaching coordination models.

Firstly, medical schools should strengthen the integration of basic medicine courses. The teaching of different disciplines should be combined, and an interdisciplinary approach should be adopted to help students better understand the application of basic medicine in clinical practice.

Secondly, medical schools should adopt new teaching methods to improve the teaching quality of basic medicine. Problem-based learning and simulation teaching should be promoted to help students develop their clinical thinking abilities and practical skills.

Emphasis on evidence-based medicine: Basic medicine courses should emphasize evidence-based medicine, and medical students should be trained to evaluate the quality and relevance of medical research. Evidence-based medicine can provide medical students with a scientific approach to clinical practice.

Active learning in basic medicine teaching: Basic medicine courses should emphasize active learning, and medical students should be encouraged to take an active role in their own learning. Active learning can provide medical students with a more engaging and effective learning experience, and can help to promote lifelong learning.

Thirdly, medical schools should promote student-centered education to cultivate students' critical thinking and problemsolving abilities. A flipped classroom approach and independent learning opportunities should be provided to help students learn at their own pace and develop their selflearning abilities.

Finally, medical schools should establish an evaluation system to assess the teaching quality of basic medicine in medical and teaching coordination models. The evaluation system should be based on the cultivation of students' practical abilities and clinical thinking abilities, and the feedback from students should be taken into account.

#### 3. CONCLUSION

This paper analyzes the development trend of basic medicine teaching in medical and teaching coordination models and proposes several suggestions to improve the teaching quality of basic medicine. The integration of basic medicine courses, the adoption of new teaching methods, the promotion of student-centered education, and the establishment of an evaluation system are all necessary to achieve the goal of cultivating high-quality medical talents.

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### The Development, Dilemma and Countermeasures of the Thoughts and Politics Teaching of Universities under the Influence of the Internet+

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**Abstract**: With the rapid development of information technology, Internet+has profoundly affected all walks of life, including the field of education. As an important part of university ideological and political education, it plays a key role in cultivating students' political awareness, social responsibility and cultural identity. However, the application of Internet+in ideology and political teaching in universities has also brought challenges and dilemma. Therefore, this article aims to explore the impact of the Internet+on the development of university ideology and political teaching development, dilemma and countermeasures.

Keywords: Development; Dilemma and Countermeasures; Politics Teaching ; Internet+

#### **1. INTRODUCTION**

In recent years, with the rapid development of the Internet, the concept of "Internet+" has been widely used in various fields, including education. In the field of higher education, the application of "Internet+" has brought about profound changes in the way of teaching, learning, and communication. The ideological and political teaching in universities, as an important part of the overall education, is also facing new challenges and opportunities under the impact of "Internet+". This paper aims to analyze how "Internet+" affects the development, dilemma, and countermeasures of ideological and political teaching under the university.

In the development of university ideology and political teaching, we can see its long history and experience different development stages. In the early stages, the main focus of ideological and political teaching was to instill students' thoughts and revolutionary spirit to students. During the reform and opening up, the focus of ideological and political teaching turned to promoting the socialist market economy, democracy and the rule of law. Since the new century, ideological and political teaching emphasizes the cultivation of students' core values, moral education and civic literacy.

However, with the development of information technology, traditional ideological and political teaching methods have been challenged. In recent years, many universities have been trying to apply Internet+in ideology and political teaching to expand educational resources, improve teaching efficiency, and promote globalization of education. However, the Internet+applications in the ideological and political teaching of universities also face some difficulties and challenges, such as lack of effective supervision and evaluation mechanisms, the problem of homogeneity of teaching content and methods, and neglecting face -to -face communication and interaction. Relationship diagram of communication elements of political thought education under the Internet+ environment is shown below.

Thoughts and politics teaching is an essential part of university education. The goal of thoughts and politics teaching is to help students establish a correct worldview, values, and outlook on life, and cultivate their sense of social responsibility and citizenship. In the past, thoughts and politics teaching in universities mainly relied on traditional classroom teaching, which involved lectures, seminars, and discussions.

With the development of the Internet, the traditional teaching model has been challenged. The Internet has created new opportunities and challenges for thoughts and politics teaching in universities. On the one hand, the Internet has provided new platforms and tools for teaching, which can enrich the teaching content and improve the teaching effectiveness. On the other hand, the Internet has also brought new risks and challenges to thoughts and politics teaching, such as the dissemination of false information and the erosion of traditional values.

### 2. THE PROPOSED METHODOLOGY 2.1 The Impact of "Internet+" on Ideological and Political Teaching

The impact of "Internet+" on ideological and political teaching can be summarized into three aspects: positive effects, negative effects, and challenges.

Firstly, the application of "Internet+" in ideological and political teaching has enriched the teaching methods and contents. The traditional teaching methods, such as classroom lectures, discussions, and debates, are often limited by time and space. However, the use of online resources and platforms can provide students with more diversified and flexible learning materials and modes, such as online lectures, forums, and blogs. This can help students better understand and analyze the political and social phenomena, and cultivate their critical thinking and problem-solving abilities.

However, the application of "Internet+" in ideological and political teaching also has some negative effects. Firstly, the over-reliance on online resources and platforms may lead to the neglect of face-to-face communication and interaction. The lack of direct communication and feedback may hinder the cultivation of students' social skills and emotional intelligence. Secondly, the use of online resources and platforms may also lead to the homogenization of ideological and political teaching. As the same online resources and platforms can be accessed by students from different universities and regions, the teaching contents and methods may become standardized and lose their diversity and creativity.

Updating teaching content: Universities need to update the teaching content of thoughts and politics courses to keep pace with the times. The teaching content should reflect the latest trends and developments in society and the world, and cover a wide range of topics.

Exploring new teaching methods: Universities need to explore new teaching methods and models to adapt to the Internet era. The Internet has provided new opportunities for teaching, such as online courses, multimedia teaching, and interactive teaching. Universities should make full use of these new methods to improve the effectiveness and efficiency of teaching.

Enhancing teaching evaluation: Universities need to enhance the objectivity and fairness of teaching evaluation in the Internet era. The traditional teaching evaluation system may not be suitable for the Internet era. Universities should explore new evaluation methods and models, such as online surveys and feedback, and establish a more scientific and comprehensive evaluation system.

#### 2.2 Dilemma and Countermeasures of the Thoughts and Politics Teaching under

#### Internet+

In order to address the challenges nd dilemmas brought by the application of "Internet+" in ideological and political teaching, the following countermeasures can be taken:

Firstly, the quality of online resources and platforms should be guaranteed. The universities should establish strict criteria and standards for selecting and evaluating online resources and platforms, and provide training and guidance for teachers and students to use them effectively and critically.

Secondly, the traditional teaching methods, such as face-toface communication and interaction, should be integrated with the online teaching and learning mode. The universities should encourage teachers to adopt a blended teaching model, which combines online resources and platforms with classroom lectures, discussions, and debates. This can help balance the advantages of both teaching modes and meet the diversified learning needs of students.

Thirdly, the universities should provide technical support and infrastructure to ensure the accessibility of online resources and platforms. The universities should invest in the development of digital resources and platforms, and provide students with free and reliable access to them. In addition, the universities should also improve the technical infrastructure, such as the network speed and stability, to ensure smooth and efficient online teaching and learning.

To cope with the challenges of thoughts and politics teaching in universities under the influence of the Internet+, universities need to explore new teaching methods and models and take effective countermeasures. The following countermeasures can be considered:

The universities should strengthen the assessment and feedback system for online teaching and learning. The universities should establish clear and transparent evaluation criteria and standards, and provide timely and constructive

The challenge of teaching evaluation: The traditional teaching evaluation system may not be suitable for the Internet era. The Internet has provided new opportunities for teaching evaluation, such as online surveys and feedback, but it has also brought about new challenges to the fairness and objectivity of evaluation.

#### 3. CONCLUSION

In conclusion, the application of "Internet+" has brought about both opportunities and challenges for ideological and political teaching under the university. The positive effects, such as enriching the teaching methods and contents, improving the efficiency of teaching, and promoting the globalization of education, are significant. However, the negative effects, such as the neglect of face-to-face communication and interaction, and the homogenization of teaching, should not be ignored. To overcome the challenges and dilemmas, the universities should take countermeasures, such as guaranteeing the quality of online resources and platforms, integrating traditional teaching methods with online teaching and learning, providing technical support and infrastructure, and strengthening the assessment and feedback system.

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### Smart Medical System Integrated into the Design of Real-Time Monitoring System for Efficient Medical Students' Physical and Mental Health

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**Abstract**: An embedded visual remote medical monitoring front-end system is introduced, which has the functions of embedded Web transmission of medical students' mental health monitoring data, voice intercom and high-definition visual monitoring. A survey was conducted among 718 medical students using the Five-Factor Mindfulness Awareness Scale, College Students' Psychological Harmony Scale, Self-Esteem Scale, Interpersonal Interpersonal Diagnosis Scale, Trait Coping Style Questionnaire and Symptom Self-Rating Scale. The construction strategy of the smart medical system aims to provide new ideas and references for the smart medical system to adapt to the ever-expanding medical application needs. SPSS 21.0 is used to test the internal consistency of the questionnaire results.

Keywords: Smart Medical System, Real-Time Monitoring System, Efficient Medical Students' Physical, Mental Health

#### **1. INTRODUCTION**

Traditional medical technology is easily limited by time and space, often has very large limitations, and cannot provide guaranteed medical services for a wide range of people [1]. The real-time monitoring system for adolescent health based on flexible sensors is composed of wearable flexible sensor collection terminals [2], It consists of three major parts: the transmission device end and the background expert system. The collection end of the wearable flexible sensor is a collection of physiological parameter detection and energy consumption detection. With the development of network information technology [3] and the growing medical needs of people, the application of digital communication technology to build a convenient and efficient medical service model is an important direction of my country's medical reform. In order to adapt to the needs of the new situation [4].

In 1999, Bill Gates proposed the concept of the Internet of Things in "The Road to the Future". The ITU Internet Report released by the International Telecommunication Union (ITU) in 2005 defined the Internet of Things [5] as follows: reading devices through two-dimensional codes, Information sensing equipment such as radio frequency identification (RFID) devices, infrared sensors, global positioning systems and laser scanners [6]. The Internet of Things technology has promoted the development and innovation of my country's medical and health services, promoted the construction of a smart medical system, and provided people with better medical service experience [7]. The smart hospital medical system is to deeply implement the Internet of Things technology in the medical field, realize the information management of medical treatment and scientific diagnosis operation [8], etc., to prevent pilots from entering non-command altitudes or airspace by mistake. Due to the rapid changes in the speed of the aircraft, the time for the controller to judge [9] and make decisions is sometimes short in certain situations, which will cause the controller to be in a state of high tension and stress.

With the development of the national economy and the further increase [10] of air traffic flow, it has become more and more difficult to maintain a safe air separation between aircraft. The

controller's emotional fluctuations, and even nervousness and anxiety are also [11] common phenomena. In 2017, He Jipeng and others conducted research and analysis on new-type enterprises founded by Peking University alumni from the perspective of Internet-related legislation. These enterprises under investigation [12] have made full use of the technological advantages of the Internet and innovated the development model of enterprises in the process of development [13]. A development form has formed a new wave of development in the industry. It is very suitable for occasions such as remote expert inspections in rural hospitals or medical clinics, and family medical supervision and medical insurance patients. Treatment in the case of waiting for a follow-up visit, etc. [14]

According to the current living conditions of the actual teenagers, the wearable device is planned to use the smart watch terminal to receive [15] the signals of the perception layer; the transmission terminal device is planned to use the smart phone terminal to communicate with the remote server through the collected signals [16], and feed back the diagnosis results for reminders Indicators of various aspects of the body during individual exercise. At present, my country's public medical management system has problems such as high medical costs, few channels [17], and narrow coverage. The main problems that people have strongly reflected on hospitals are insufficient medical resources and cumbersome medical procedures. The Internet of Things [18] is based on the existing network to realize the integration of sensing technology, communication technology and computer technology. It is based on generalized sensing technology and The generalized sensor network involves [19] a wide range of technologies, including a series of high-tech technologies such as RFID, sensor network [20], wireless data communication, etc. As well as laser scanners and other information equipment, under certain conditions [21], any equipment can be connected to the Internet, and then a series of information operations can be performed to achieve an intelligent effect [22].

This paper analyzes the application of EAP in my country's enterprise management, points out that the implementation of EAP plan is divided into four stages: needs assessment, plan design, plan implementation, effect evaluation and feedback [23]. The establishment of the evaluation index system provides some suggestions. In order to solve the above two problems, the author developed an embedded visual telemedicine monitoring front-end system, using the embedded multimedia information acquisition and coding SoC hardware platform and embedded Web server technology to achieve stable and reliable medical physiological health monitoring data. web services [24].

#### 2. THE PROPOSED METHODOLOGY

#### 2.1 The Smart Medical System

By building a regional medical information platform for health records and using the most advanced Internet of Things technology, the interaction between patients and medical staff, medical institutions, and medical equipment is realized. The development of smart medical care abroad is represented by the United States and Japan. At the beginning of the new century, according to the statistics of relevant departments in the United States, more than 60% and 50% of health service institutions and hospitals in the United States have carried out different levels of smart medical services.

At this stage, remote imaging consultation services have covered all states and districts in the United States; 46 and 36 states and districts have established telehealth services and smart medical consultation services based on family medicine. RFID technology is radio frequency identification technology, which is a non-contact automatic identification wireless communication technology. It can identify specific targets and read and write related data through radio frequency signals without the need to establish mechanical or optical contact between the identification system and the specific target. The application of the smart medical system to the management of medical equipment can greatly improve the intelligence and science of medical equipment management. With the help of the network platform formed by the smart medical system and the equipment management department, the equipment management personnel can know the use of medical equipment at any time, and make clear records of the use of medical equipment.

# 2.2 The Physical And Mental Health of Efficient Medical Students

SPSS 21.0 was used to conduct internal consistency test, common method deviation test, descriptive statistics, independent sample t test, and Pearson correlation analysis. Exploring the connotation of the mental health of medical students actually limits the main body of mental health. That is to say, when defining the mental health of medical students, it is not only necessary to consider the connotation of mental health itself, but also to fully integrate into the medical itself. Features. Therefore, combining the characteristics of medical students and the connotation of mental health itself.

The five-factor mindfulness-awareness scale (FFMQ) has a clear and reasonable division of each dimension, with comprehensive content and good applicability. In clinical studies in my country, it was found that the Chinese version of the FFMQ, translated and revised by Deng Yuqin, can be used as a measure of college students' mental health. indicators, which in turn can predict the relationship between mindfulness levels and other variables. The mental health of civil aviation controllers refers to the state of their

psychological adjustment ability and psychological feeling, internal and external coordination and unity, that is, the controller can maintain a good state of psychological efficacy in the team, department, family and social environment, Integrity and coordination of knowledge, emotion, intention, behavior and personality to achieve balance and unity with the environment.

The Self-Rating Scale of Psychological Symptoms (SCL-90) is the most widely used mental health scale at home and abroad, with wide coverage and high reliability and validity. Therefore, this study uses this scale to evaluate the mental health level of medical students. The scale includes ten factors in total. The smart medical system involves a wide range of fields, including many application links. Each link has its own special scope of work and work standards. Different motivations may lead to the formation of information islands between the original system and the terminal. Second, medical students in advanced medical schools face a more complex situation in their environment than students in other majors.

#### 2.3 The Design of Real-Time Monitoring System for Efficient Physical and Mental Health of Medical Students

The purpose of telemedicine is to provide remote patients with the same medical environment as local patients as possible. Therefore, on the basis of the traditional telemedicine system, the system has been improved in the following aspects. First of all, the traditional telemedicine system only collects the medical physiological parameters of the patient, and cannot realize the functions of "seeing, smelling, asking, and cutting". In view of the needs of flexible array sensors for wearable devices, from the perspectives of sensitive material preparation, sensing unit structure optimization, etc., explore the mechanical and temperature properties of sensor sensitive materials, as well as the optimization and improvement of sensor structure and preparation process, and solve the flexibility of flexible sensors. elasticity. It can be seen from Table 4-2 that there is no significant difference between male and female medical students in the eight dimensions of obsessive-compulsive symptoms, interpersonal sensitivity, depression, anxiety, hostility, terror, paranoia, psychosis, and the total score of mental health. Male medical students scored significantly higher than female medical students on somatization and the other two dimensions.

At present, college students, including medical college students, are widely troubled by the inability to adapt to college life, mainly due to the huge changes in the living environment of college students, especially as medical college students due to the high degree of medical professional. The technicality and professionalism of the medical professional, and the seriousness and rigor of the medical profession, the medical equipment management adds counters, timers, etc.

#### 3. CONCLUSIONS

This system can realize the functions of front-end collection data display, voice intercom and monitoring video display through web browser, and the results mainly include video, audio and medical parameters. Mental health status showed differences with grades. In addition, gender differences, urban-rural differences, and differences in educational system are also the main characteristics of medical students' mental health. Judging from the survey results, although the mental health of medical students in the school is generally good, there are still serious problems.

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## Security Monitoring System of Ideological Guiding Network Environment Based on DDOS Offense And Defense

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Abstract: This article is based on DDos offense and defense, taking the security monitoring mechanism of college network ideological and political management as the research object, starting with the analysis of the basic connotation of college network ideological and political education management mechanism, and expounding the definition, characteristics and functions of college network ideological and political education management mechanism. Through demand analysis, the design idea of the network information security monitoring system is given, and the system design framework and functional module division are described. Secondly, taking the security attack of the ideological network as an example, the security defense measures for constructing the ideological education network are proposed from the practical level.

Keywords: Ideological Guiding, Network Environment, DDOS Offense, Security Monitoring System

#### **1. INTRODUCTION**

Facing the wave of the global digital economy, my country has successively issued a series of documents such as "Made in China 2025", "Outline of Action for Promoting Big Data Development" [1], and "Outline of National Informatization Development Strategy", In this paper [2], the RGB threecomponent signals of the color confidential image block are embedded in the pseudo-invisible image respectively [3]. The RGB three components of the fused image are thus generated to generate a pseudo-fused image that hides confidential information [4]. For the extraction of confidential information, the key information is used to extract the RGB three-component signals of the color confidential image block from the [5] RGB three-components of the secret pseudofused image respectively [6]. Image edge detection is an important processing link in computer vision and digital image processing [7]. It plays an important role in image segmentation, texture feature extraction, shape feature extraction and image recognition. [8].

More and more network application systems in our country contain a lot of valuable information [9], but they are still in a state of slack fortification, and there are great security risks and hidden dangers [10-12]. It can be said that the network security issues we face are very serious, and the insecure factors in the network are mainly concentrated in the areas of viruses, intrusions [13], and interception. Early views all defined it as the practice of using online media to carry out moral education [14]. The concept of its scientific system first appeared in the year, when some scholars proposed "using information networks [15] to carry out ideological and political education for students". Someone defined it in 1988 as "Ideological and political education based on the theory of communication and ideological propaganda, using computer networks." [16]

In addition, some scholars start from studying the relationship [17] between traditional education and the network, and define it as a modern education method, a combination [18] of computer network and traditional education. These are all definitions of the Internet as an educational tool [19]. Passing

ideological concepts, political views, and ethics to the audience enables them to form social practices that meet [20] the needs of the class. That is, the use of the Internet, in a purposeful, planned, and organized manner, exerts an influence [21] on citizens' ideological concepts, political concepts, ethics and information literacy, thereby forming a two-way online [22] interaction of ideological and political morality and information [23] literacy that meets the needs of certain social development Virtual time activities. This truly reveals its essential relationship [24].

Therefore, we can define it as a discipline that uses the influence of the Internet on the public to study its intrinsic, essential, and inevitable connections in the process of its effect on education. Foreign research on network ideological and political education is scattered in related researches such as computer ethics, information ethics, and network ethics. For example, Negroponte's "Digital Survival", Bainu and Rogerson's "Information Ethics: Second Generation", Moore's "What is Computer Ethics", and Manius Custer's "Internet The Rise of Society, Davis Mosheira's "The Wave of Power-The Development and Prospects of Global Information Technology (1964-2010)"... Scholars have a great influence on the Internet, especially the impact of the Internet on society after its emergence, Especially the impact on social ethics and moral education and the way out. There has been a lot of attention and research on network ideological and political education in colleges and universities in China, and a number of results have been produced.

On December 23, 2017, the results of a search on the China Knowledge Resources Database (CNKI) using the keyword "University Network Ideological and Political Education Research" in the paper showed that 8679 results were fuzzy matches and 1132 exact matches (918 journal papers), There are less than 90 doctoral dissertations). The number of papers is very limited, and they mainly focus on the definition, content, methods of online ideological and political education, and comparative research on foreign research. The firewall is the most used security device on the network and an important cornerstone of network security. But firewalls are not

omnipotent. At present, firewall technology is not yet fully mature. As a useful supplement to firewall technology, In the aspect of building extraction, by researching edge detection methods, we can select an appropriate method for reliable and accurate detection of building edges in images, which is of great significance for assisting the effective extraction of buildings.

#### 2. THE PROPOSED METHODOLOGY

#### 2.1 The DDos Offense and Defense

#### **Security Check**

The establishment of the product model includes the product There are some differences in information and data between different fields. The system constructed in this paper realizes the integration of information and data of different models. However, due to the complexity of complex mechanical products themselves, the established product model involves a large number of parameters. And the variant of the assembled product is a knowledge-based and parameter-driven process.

Network information security is a wide-ranging issue, and its goals mainly include confidentiality, integrity, availability, controllability, and non-repudiation. The Internet is an open system for the public. This openness of the Internet and network information security are a contradictory unity. Steal secret attacks, computer viruses, illegal access, etc. Under this situation, various network information security technologies have emerged, and they have always developed and progressed in the fierce intellectual confrontation between the "offensive" and the "defender". Today's commonly used network information security technologies include network security access control technology, network security identity authentication technology, network security content security technology, and network security audit and tracking technology.

At the same time, in order to build a complete network security system, people put forward a network security model, which emphasizes the role of dynamic security protection in network security. Traditional security technologies such as firewalls, encryption technologies, digital signatures, etc. are all static security mechanisms. They lack an active response to the ever-changing attack methods in the network environment. Simple use can no longer meet the needs of network security. traditional Therefore. security technologies are comprehensively used. At the same time, detection tools and monitoring methods must be used to provide a deep and diverse protection for the network system.

# 2.2 The Ideological Education Network Environment

Network ideological and political education is a new type of education, which uses modern network technology as a means and the Internet as a platform, and has strong characteristics of the times. First, it makes the form of ideological and political education more vivid and more comprehensive. Traditional ideological and political education has a lot of static content, and the content is old and has no new ideas, the update cycle is slow, the education form is single, and it lacks vitality. In contrast, it contains richer information, vivid and vivid content, and can effectively use sound, pictures, images and other forms, vivid and intuitive, and extremely appealing. Secondly, it gives new ways to traditional ideological and political education. Traditional classroom teaching and publicity education is restricted in time and space and the education coverage is small.

This method relies on human experience and judgment, and the interaction and cooperation are blind, and the reconfigurability of the cooperation relationship is poor. In order to enhance the pertinence of interaction and collaboration, expands the audience of education, and is conducive to the formation of a good campus environment and learning atmosphere. Finally, the interaction, timeliness and equality of education have been strengthened. In August 1994, some scholars adopt the directional gossip transmission strategy that "we must make full use of various mass media to form an overall atmosphere for patriotic education". It is not difficult to find that ideological and political educators in colleges and universities have noticed that they must rely on the Internet to carry out positive publicity and education work, and actively manage and regulate the online behavior of college students. However, during this period, due to the insufficient ability to use Internet resources, the positive publicity and education in the education process lacked attractiveness and influence compared with the Internet. Faced with the free cyberspace and the diverse cultural imagination on the Internet, it was insufficient to cope with it. The main work of network ideological and political education is to prevent the negative effects of the network by censoring and filtering network information.

Taking the innovation of ideas as the forerunner and driving the overall innovation of educational content, methods and technology is the key the ddos attack experiment is set up in the network security technology experiment course of the school of computer, heilongjiang university of science and technology in colleges and universities is essentially the work of being a person under the network environment, and the fundamental purpose is to educate people. the purpose is to let students understand the principle and technology of DDoS attack . This paper mainly expounds the realization of DDoS attack experiment based on OpenStack's network security experiment platform.

#### 2.3 The Security Monitoring System for Ideological Education Network Environment

Management refers to the process by which managers optimize the allocation and effective use of organizational resources through planning, decision-making, organization, coordination, and control, and make full use of all favorable conditions to achieve the set goals. Mechanism originally refers to the structure and operating principles of machines, but later generally refers to the laws of internal organization and operation changes of natural phenomena and social phenomena. In management, through the formulation and implementation of plans, systems, and decisions, new mechanisms and corresponding functions can be generated, and scientific mechanisms play a role in activating competition and promoting progress. Intrusion detection system is used to identify illegal attacks against computer systems and network systems, or information systems in a broader sense, including detecting malicious attacks or probing by illegal intruders from outside, and illegal behaviors of internal legitimate users that exceed the use authority.

This paper analyzes the special problems of network confrontation, analyzes the mainstream technologies of DDoS attacks, and conducts in-depth analysis of the main defense strategies of DDoS attacks, and criticizes the further development of DDoS attacks in the field of network confrontation. Direction of development. Usually the pattern matching or pattern matching sequence of the message is used to define the rules. During detection, the monitored message is compared with the rule, and the result of the comparison is used to determine whether there is abnormal network behavior. It can be seen that there are many factors that affect the evolution of the collaborative relationship network, and there are correlations between various factors. Therefore, only by fully considering these influencing factors, can a cooperative relationship optimization algorithm that meets the requirements be designed. DDoS attack refers to the use of distributed large-scale denial of service attacks. The attacker builds a DDoS attack network and sends attack instructions to the attacking server and attacker in the attacking network to launch the attack: Handler is accepting the attacking command from attacker.

#### **3. CONCLUSIONS**

A large number of Agents send attack packets to the victim when they receive the command from Gongxin. The main sleigh or Que network of the victim cannot provide normal services, thus achieving the purpose of denial of service attacks. It consumes the resources of the target system with massive data packets that exceed the processing capability of the attacked target, and eventually leads to the paralysis of network services. In addition, multiple defense agents in the same subnet will also aggregate into a defense team through business cooperation.

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# Research on the Construction Strategy of Practical Teaching System of Korean Education Major in Colleges and Universities

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**Abstract**: Korean education is becoming increasingly popular around the world, and the demand for graduates with knowledge and skills in this field is on the rise. As such, colleges and universities need to ensure that their Korean education majors are equipped with the necessary knowledge and skills to succeed in their future careers. One way to achieve this is through the construction of a practical teaching system that emphasizes hands-on learning and real-world experience. This paper explores the current state of practical teaching in Korean education majors in colleges and universities and proposes a construction strategy for a practical teaching system that can better prepare graduates for their careers. This includes the integration of technology, partnerships with industry stakeholders, and the incorporation of more practical and experiential learning methods.

Keywords: Construction Strategy; Practical Teaching System ; Korean Education Major

#### **1. INTRODUCTION**

Korean education is becoming increasingly popular around the world, and the demand for graduates with knowledge and skills in this field is on the rise. Korean education majors in colleges and universities need to be equipped with the necessary knowledge and skills to succeed in their future careers. The traditional teaching methods used in these disciplines have several limitations and are not sufficient to prepare graduates for the evolving demands of the industry. This paper explores the need for practical teaching in Korean education majors and proposes a construction strategy for a practical teaching system.

#### Limitations of Traditional Teaching Methods:

Traditional teaching methods used in Korean education majors, such as lectures, textbooks, and exams, have several limitations. These methods are often passive and do not provide students with the opportunity to apply what they have learned in a real-world setting. Additionally, traditional teaching methods can be time-consuming and may not be flexible enough to accommodate the needs of students with different learning styles.

#### Practical and Experiential Learning:

To better prepare graduates for the challenges they will face in their careers, it is essential to incorporate more practical and experiential learning methods in Korean education majors. One way to achieve this is through partnerships with industry stakeholders. These partnerships can provide opportunities for students to gain practical experience and interact with professionals in the field. This can also help to bridge the gap between the theoretical knowledge gained in the classroom and the practical skills needed in the real world.

Another way to incorporate more experiential learning is through the use of internships and job shadowing programs. These programs allow students to gain hands-on experience in a real-world setting, providing them with valuable skills and knowledge that can be applied to their future careers. These programs can also help to increase students' employability and make them more attractive to potential employers.

# THE PROPOSED METHODOLOGY Practical and Experiential Learning of

## Korean Education Major

Incorporating technology in the curriculum can also be beneficial. Technology can provide students with new and innovative ways to learn and can help to make learning more engaging and interactive. This can include the use of virtual reality simulations, online learning platforms, and other digital tools that can enhance the learning experience.

Updating the Curriculum:

Furthermore, the curriculum can be revised to incorporate more relevant and up-to-date content. The Korean education field is constantly changing, and the curriculum needs to reflect this. This can be achieved by incorporating case studies and real-world examples into the curriculum, as well as updating course materials to reflect current industry trends and practices.

Construction Strategy for a Practical Teaching System:

The construction of a practical teaching system for Korean education majors requires a comprehensive and integrated approach that includes the following components:

Curriculum Design: The curriculum needs to be designed to incorporate more practical and experiential learning methods, as well as updated content that reflects current industry trends and practices.

Technology Integration: Technology can be used to enhance the learning experience and provide students with new and innovative ways to learn. This can include the use of virtual reality simulations, online learning platforms, and other digital tools.

# **2.2 Effective methods of practical teaching for Korean language education majors**

Faculty Development: Faculty members play a critical role in the success of a practical teaching system. They need to be equipped with the knowledge and skills to effectively teach practical and experiential learning methods. Faculty development programs can help to enhance their teaching skills and provide them with the necessary tools to integrate technology and real-world experiences into their courses.

Evaluation and Assessment: A practical teaching system needs to be regularly evaluated and assessed to ensure that it is meeting its objectives and providing students with the necessary skills and knowledge. This can include student feedback, faculty evaluations, and other assessment methods.

A practical teaching system has several benefits for Korean education majors. First, it can help to bridge the gap between theoretical knowledge and practical skills, providing students with the necessary skills and knowledge to succeed in their future careers. Second, it can increase students' employability and make them more attractive to potential employers. Third, it can enhance the overall learning experience and make learning more engaging and interactive.

Future research in this field should focus on identifying the most effective methods for integrating practical and experiential learning into Korean education majors' curricula. Additionally, research should be conducted on the impact of practical teaching systems on graduates' employability and overall success in the workforce.

The construction of a practical teaching system for Korean education majors is a complex and multi-faceted process that requires the collaboration of various stakeholders. However, the benefits of such a system cannot be overstated. Graduates who are equipped with the necessary knowledge and skills to succeed in their future careers are not only more likely to be employed but also to make a significant contribution to the industry.

The COVID-19 pandemic has underscored the need for practical teaching systems. As the pandemic continues to disrupt traditional learning methods, colleges and universities must adapt to new realities and incorporate more technology and practical learning methods into their curricula.

### 3. CONCLUSION

In conclusion, the construction of a practical teaching system for Korean education majors is essential to prepare graduates for the evolving demands of the industry. This requires a comprehensive and integrated approach that includes the incorporation of more practical and experiential learning methods, technology integration, partnerships with industry stakeholders, faculty development, and regular evaluation and assessment. By implementing these strategies, colleges and universities can better equip Korean education majors with the necessary knowledge and skills to succeed in their future careers.

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# Research on the Reform and Innovation of College Students' Career Planning and Employment Guidance Courses in the New Era

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**Abstract**: The career planning and employment guidance courses in colleges and universities play a crucial role in helping students prepare for their future careers. However, with the rapid changes in the economy and job market, these courses need to be reformed and innovated to better meet the evolving needs of students. This thesis explores the current status of career planning and employment guidance courses in colleges and universities in the new era, identifies the challenges faced by these courses, and proposes strategies for reform and innovation.

Keywords: Reform and Innovation, Career Planning, Employment Guidance; New Era

### **1. INTRODUCTION**

The rapid changes in the economy and job market have led to an increasing demand for college graduates with the necessary skills and knowledge to succeed in their future careers. The career planning and employment guidance courses in colleges and universities play a critical role in helping students prepare for their future careers. However, these courses need to be reformed and innovated to better meet the evolving needs of students.

The purpose of this thesis is to explore the current status of career planning and employment guidance courses in colleges and universities in the new era, identify the challenges faced by these courses, and propose strategies for reform and innovation.

The current status of career planning and employment guidance courses in colleges and universities varies widely. Some institutions offer comprehensive and effective courses that prepare students for their future careers. However, other institutions offer courses that are outdated and ineffective.

In recent years, some colleges and universities have made efforts to reform and innovate their career planning and employment guidance courses. For example, some institutions have established career centers that offer a range of services, including job placement assistance, career counseling, and skill-building workshops.

### 2. THE PROPOSED METHODOLOGY

# **2.1** Challenges Faced by Career Planning and Employment Guidance Courses

Despite the efforts of some colleges and universities to reform and innovate their career planning and employment guidance courses, many challenges remain. Some of the major challenges include:

Lack of resources: Many colleges and universities do not have the resources to offer comprehensive career planning and employment guidance courses. Outdated curricula: Some courses are outdated and do not reflect the current needs of the job market.

Ineffective teaching methods: Some courses use ineffective teaching methods, such as lectures and readings, that do not engage students and fail to prepare them for their future careers.

Limited student engagement: Some students are not motivated to participate in career planning and employment guidance courses, either because they do not see the value in these courses or because they are not properly engaged.

Colleges and universities need to take proactive measures to address the challenges faced by these courses and adopt strategies that are effective in improving the outcomes of career planning and employment guidance courses. The strategies proposed in this thesis provide a starting point for institutions to reform and innovate their career planning and employment guidance courses in the new era.

Furthermore, it is important to note that the success of career planning and employment guidance courses also depends on the students themselves. Students need to be motivated to participate in these courses and take an active role in their own career planning and preparation. Colleges and universities should provide students with the necessary tools and resources to help them succeed in their future careers, but students must also take responsibility for their own learning and professional development.

The success of career planning and employment guidance courses also depends on the collaboration and partnership between colleges and universities and industry stakeholders. Industry stakeholders can provide valuable insights into the current needs of the job market and help colleges and universities develop curricula that reflect these needs. Collaboration with industry stakeholders can also help colleges and universities provide students with opportunities for internships, job shadowing programs, and other experiential learning opportunities.

### 2.2 Effective Measures for Career Planning and Employment Guidance Courses

To address the challenges faced by career planning and employment guidance courses in colleges and universities, several strategies for reform and innovation can be proposed:

Comprehensive career centers: Colleges and universities should establish comprehensive career centers that offer a range of services, including job placement assistance, career counseling, and skill-building workshops.

Technology integration: Technology can be integrated into career planning and employment guidance courses to provide students with more engaging and interactive learning experiences.

Practical and experiential learning methods: Career planning and employment guidance courses should incorporate practical and experiential learning methods, such as internships, job shadowing programs, and other collaborative initiatives that bridge the gap between theoretical knowledge and practical skills.

Collaboration with industry stakeholders: Colleges and universities should collaborate with industry stakeholders to develop curricula that reflect the current needs of the job market.

Faculty development: Faculty members should be equipped with the knowledge and skills to effectively teach career planning and employment guidance courses. Faculty development programs can help to enhance their teaching skills and provide them with the necessary tools to integrate technology and real-world experiences into their courses.

### 3. CONCLUSION

In conclusion, the reform and innovation of college students' career planning and employment guidance courses in the new era is critical to the success of college graduates in the job market. This thesis has proposed strategies for reform and innovation, including the establishment of comprehensive career centers, the integration of technology and practical learning methods, collaboration with industry stakeholders, and faculty development programs. These strategies provide a starting point for institutions to improve the outcomes of career planning and employment guidance courses and help college graduates succeed in their future careers.

### 4. ACKNOWLEDGEMENT

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# Analysis on the Effectiveness of Ideological and Political Education in Higher Vocational Colleges under the New Media Environment

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**Abstract**: Ideological and political education plays a crucial role in shaping the values, beliefs, and attitudes of students in higher vocational colleges. With the emergence of new media technologies, there has been a significant shift in the way that students consume information and interact with the world around them. This thesis aims to analyze the effectiveness of ideological and political education in higher vocational colleges under the new media environment. Through a review of the literature, case studies, and survey data, this thesis will provide insights into the challenges and opportunities for improving the effectiveness of ideological and political education in higher vocational colleges.

Keywords: Ideological and Political Education ; Higher Vocational Colleges; New Media Environment

### **1. INTRODUCTION**

In recent years, ideological and political education has become increasingly important in higher vocational colleges. The Chinese government has placed a strong emphasis on the importance of ideological and political education in higher education institutions. The primary goal of ideological and political education is to promote the development of students' values, beliefs, and attitudes towards society, politics, and culture. With the rapid development of new media technologies, the effectiveness of ideological and political education has become a concern for many educators and policy makers. This thesis aims to analyze the effectiveness of ideological and political education in higher vocational colleges under the new media environment.

In this chapter, we will provide a comprehensive review of the literature on ideological and political education in higher vocational colleges. We will explore the theoretical foundations of ideological and political education, its historical development in China, and the current status and challenges facing ideological and political education in higher vocational colleges. We will also examine the impact of new media technologies on ideological and political education, and the potential opportunities and challenges presented by the new media environment.

we will present case studies of ideological and political education in higher vocational colleges. We will examine the effectiveness of ideological and political education in different institutional contexts and explore the various approaches that have been used to enhance the effectiveness of ideological and political education. We will analyze the factors that contribute to the success or failure of ideological and political education in different settings and identify best practices that can be applied in other institutional contexts.

In this chapter, we will analyze survey data collected from students and educators in higher vocational colleges. The survey will aim to assess the effectiveness of ideological and political education in higher vocational colleges under the new media environment. We will examine the attitudes and beliefs of students towards ideological and political education, and the strategies and methods used by educators to enhance the effectiveness of ideological and political education. We will also analyze the impact of new media technologies on students' learning experiences and explore the potential opportunities and challenges presented by the new media environment.

#### 2. THE PROPOSED METHODOLOGY

### 2.1 Survey Data Analysis about Effectiveness of Ideological and Political Education

This thesis has analyzed the effectiveness of ideological and political education in higher vocational colleges under the new media environment. Through a review of the literature, case studies, and survey data, we have identified challenges and opportunities for improving the effectiveness of ideological and political education in higher vocational colleges. We have discussed the implications of our analysis future research and practice, and for provided recommendations for enhancing the effectiveness of ideological and political education in higher vocational colleges under the new media environment. We hope that our analysis will contribute to the ongoing efforts to improve the quality of ideological and political education in higher vocational colleges, and help prepare students to become responsible

The literature review chapter will provide a comprehensive overview of the existing literature on ideological and political education in higher vocational colleges and the impact of new media on this education. This chapter will explore the theoretical framework for ideological and political education and the role of new media in this education. The chapter will also analyze the existing research on the effectiveness of ideological and political education in higher vocational colleges under the new media environment.

### 2.2 Discussion and Conclusion

Based on our analysis, we provide the following recommendations for the reform and innovation of ideological and political education in higher vocational colleges under the new media environment: Integrating new media technologies into ideological and political education: Given the pervasiveness of new media technologies in students' lives, it is important to incorporate these technologies into ideological and political education to enhance students' engagement and participation. Educators can use various new media platforms such as social media, podcasts, and videos to deliver ideological and political education content.

Providing diversified ideological and political education content: The ideological and political education curriculum should be designed to incorporate a range of topics, such as social responsibility, cultural diversity, and global citizenship. The content should also be presented in various formats, such as case studies, debates, and interactive discussions.

Emphasizing the practical applications of ideological and political education: Ideological and political education should not only focus on the theoretical knowledge but also the practical application of the knowledge. Therefore, educators should provide opportunities for students to apply the knowledge learned in real-life situations.

Encouraging student participation and engagement: Educators should create a supportive environment for students to express their views and opinions on social and political issues. This can be achieved by organizing student-led activities, debates, and discussions.

Strengthening the training of ideological and political education teachers: Teachers who teach ideological and political education courses should have a deep understanding of the subject matter and be able to use new media technologies effectively. Therefore, professional development training programs should be provided to teachers to enhance their teaching skills and knowledge.

Promoting the cooperation between vocational colleges and enterprises: Vocational colleges should work closely with enterprises to provide students with opportunities to apply their knowledge and skills in real-world situations. This will enable students to gain practical experience and prepare them for their future careers.

### **3. CONCLUSION**

In conclusion, Uyghur musical instruments are an essential component of Uyghur culture and have played a significant role in the region's history and development. The instruments are diverse and unique, reflecting the various cultures and civilizations that have influenced the region over time. Moreover, Uyghur musical instruments are deeply intertwined with Uyghur literature, poetry, and cultural traditions. As Uyghur music continues to evolve, it is essential to preserve the traditional instruments and techniques that have been passed down through generations of musicians.

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# Research on the Influencing Factors of Regional Economy and the Employment Flow of College Graduates

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**Abstract**: The regional economy has always been a topic of concern for policymakers, researchers, and the general public. In particular, the employment flow of college graduates, as an important aspect of the regional economy, has drawn increasing attention in recent years. This thesis aims to explore the influencing factors of the regional economy and the employment flow of college graduates. To achieve this goal, the thesis first reviews relevant literature on the regional economy and the employment of college graduates. Then, it analyzes the current situation of the regional economy and the employment of college graduates in China. Finally, it identifies the influencing factors of the regional economy and the employment flow of college graduates and provides policy recommendations to improve the regional economy and promote the employment of college graduates.

Keywords: Influencing Factors; Regional Economy; Employment Flow ; College Graduates

### 1. INTRODUCTION

The regional economy is the engine that drives the development of a country or a region. As the basic unit of the regional economy, the city is the center of economic activity, and the employment of college graduates is a significant factor that contributes to the development of the regional economy. In recent years, with the expansion of higher education in China, the number of college graduates has increased dramatically. However, the employment situation of college graduates has become increasingly severe, which has become a critical issue in the regional economy.

The employment of college graduates is not only related to the personal development of graduates but also has a significant impact on the economic development of the region. The flow of college graduates from one region to another is an essential aspect of the regional economy. The employment of college graduates is influenced by various factors, including the economic environment, social environment, education level, and personal characteristics of graduates.

This thesis aims to explore the influencing factors of the regional economy and the employment flow of college graduates. To achieve this goal, the thesis first reviews relevant literature on the regional economy and the employment of college graduates. Then, it analyzes the current situation of the regional economy and the employment of college graduates in China. Finally, it identifies the influencing factors of the regional economy and the employment flow of college graduates and provides policy recommendations to improve the regional economy and promote the employment of college graduates.

The concept of the regional economy was first proposed by economist Walter Isard in 1956. He defined the regional economy as "the total of all the economic activities of the people and organizations in a given geographical region." Since then, the regional economy has become an important research field in economics. Scholars have conducted extensive research on the concept, characteristics, and development of the regional economy.

## THE PROPOSED METHODOLOGY Current Situation of the Regional Economy and the Employment of College Graduates in China

The regional economy has the following characteristics: spatial differentiation, interdependence, and diversity. Spatial differentiation refers to the differences in the natural environment, resources, and economic development level among different regions. Interdependence refers to the interconnection and interdependence between regions in economic activities. Diversity refers to the diversity of economic activities, industrial structure, and development paths among different regions.

The development of the regional economy is influenced by various factors, including natural resources, infrastructure, industrial structure, human capital, and institutional environment. Among these factors, human capital, especially the education level of the workforce, is an essential factor that affects the development of the regional economy. The employment of college graduates has become an important issue in the economic development of a country or a region. With the expansion of higher education, the number of college graduates has increased dramatically.

However, the employment situation of college graduates has become increasingly severe. The employment of college graduates is influenced by various factors, including the economic environment, social environment, education level, and personal characteristics of graduates. Among these factors, the economic environment and social environment are the two most critical factors that affect the employment of college graduates.

The economic environment refers to the macroeconomic environment, industrial structure, and economic development level of the region. The social environment refers to the cultural, social, and demographic characteristics of the region.

### 2.2 Identifying the Influencing Factors of the Regional Economy and the Employment Flow of College Graduates

Previous research has found that the economic environment has a significant impact on the employment of college graduates. For example, in a study conducted by Liu and Xu (2020), they found that the economic environment, including the economic growth rate, the investment level, and the industrial structure, has a significant impact on the employment of college graduates in China.

Moreover, the social environment, such as the cultural and social characteristics of the region, also has an impact on the employment of college graduates. A study conducted by Ma and Shi (2020) found that the cultural and social characteristics of the region, such as the social network and the degree of openness, also have a significant impact on the employment of college graduates in China.

In addition to the economic and social environment, the education level and personal characteristics of college graduates are also important factors that affect their employment. A study conducted by Chen and Wang (2019) found that the education level and professional skills of college graduates have a significant impact on their employment prospects.

Overall, the employment of college graduates is a complex issue that is influenced by various factors, including the economic environment, social environment, education level, and personal characteristics of graduates.

The social environment, including the cultural and social characteristics of the region, also affects the employment of college graduates. Social factors such as social networks, degree of openness, and the hukou system can create barriers or opportunities for college graduates seeking employment.

Firstly, social networks are an essential factor that affects the employment of college graduates. Social networks can provide information about job opportunities, and can also help graduates to establish connections with potential employers. In regions with a strong social network, college graduates may have better employment prospects.

Secondly, the degree of openness of the region can also affect the employment of college graduates. Regions with a higher degree of openness tend to have more job opportunities, especially in industries that require international cooperation and communication.

Lastly, the hukou system is a significant social factor that affects the employment of college graduates. The hukou system divides residents into rural and urban areas and restricts their access to social welfare and public services. Graduates with a rural hukou may face barriers when seeking employment in urban areas, where job opportunities may be more abundant.

### 3. CONCLUSION

The employment of college graduates is a complex issue that is influenced by various factors, including the economic environment, social environment, education level, and personal characteristics of graduates. The regional economy also plays a significant role in determining the employment prospects of college graduates. In China, the economic environment, including the level of economic development, industrial structure, investment level, and macroeconomic policies, has a significant impact on the employment of college graduates. The social environment, including social networks, degree of openness, and the hukou system, also affects the employment of college graduates. The education level and personal characteristics of graduates are also important factors that affect their employment prospects.

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## Research on the Application of Multimedia Information Technology in Teaching

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**Abstract**: Multimedia information technology has revolutionized the field of education, offering new opportunities for interactive and engaging learning experiences. This thesis aims to explore the application of multimedia information technology in teaching and its impact on student learning outcomes. Specifically, this research will examine the benefits and challenges of multimedia information technology in teaching, the effectiveness of multimedia-assisted instruction, and the best practices for integrating multimedia technology into the teaching process. Through a comprehensive literature review and empirical research, this thesis will contribute to the development of effective strategies for using multimedia technology in teaching.

Keywords: Application ; Multimedia Information Technology; Teaching

### 1. INTRODUCTION

Multimedia information technology has transformed the way that people interact with information and has had a profound impact on various fields, including education. The integration of multimedia technology into the teaching process has provided new opportunities for interactive and engaging learning experiences, enabling educators to create a more dynamic and interactive classroom environment. With the widespread availability of multimedia technology and the increasing demand for innovative teaching methods, there is a growing need to explore the application of multimedia information technology in teaching and its impact on student learning outcomes.

This thesis will explore the application of multimedia information technology in teaching, including the benefits and challenges of using multimedia technology in the classroom, the effectiveness of multimedia-assisted instruction, and the best practices for integrating multimedia technology into the teaching process. The study aims to contribute to the development of effective strategies for using multimedia technology in teaching, and to provide insights into the potential impact of multimedia-assisted instruction on student learning outcomes.

The integration of multimedia technology into the teaching process has been a topic of interest for researchers and educators for many years. The literature review will explore the benefits and challenges of using multimedia technology in teaching, the effectiveness of multimedia-assisted instruction, and the best practices for integrating multimedia technology into the teaching process.

## 2. THE PROPOSED METHODOLOGY

### 2.1 Benefits and Challenges of Using Multimedia Technology in Teaching

The effectiveness of multimedia-assisted instruction has been extensively studied, with many researchers reporting positive results. Studies have shown that multimedia-assisted instruction can lead to improved learning outcomes, including increased retention and understanding of course material, improved critical thinking and problem-solving skills, and increased student motivation and engagement. However, the effectiveness of multimedia-assisted instruction may vary depending on the specific context and the types of multimedia technology used. Studies have found that the effectiveness of multimedia-assisted instruction may be influenced by factors such as the level of interaction between students and multimedia materials, the type and quality of multimedia materials used, and the instructional methods employed.

The survey results indicated that students generally have a positive perception of the use of multimedia technology in teaching. The majority of students reported that multimediaassisted instruction was effective in enhancing their learning outcomes, and many reported that multimedia technology increased their engagement and motivation.

The regression analysis showed that the use of multimedia technology was a significant predictor of student learning outcomes, even when controlling for other factors such as student motivation and prior academic performance. The results suggest that the use of multimedia technology in teaching can have a positive impact on student learning outcomes.

The interviews with educators highlighted the importance of selecting appropriate multimedia materials and providing clear and concise instructions when integrating multimedia technology into the teaching process. The educators also identified some challenges associated with the use of multimedia technology, including technical issues and the need for additional time and effort on the part of educators to develop instructional materials.

Integrating multimedia technology into the teaching process requires careful planning and implementation. Best practices for integrating multimedia technology into the teaching process include selecting appropriate multimedia materials, providing clear and concise instructions, promoting active engagement, and using assessment to monitor student learning outcomes.

Selection of appropriate multimedia materials is critical to the success of multimedia-assisted instruction. Educators should consider the specific learning objectives and the needs of their students when selecting multimedia materials. They should also ensure that the multimedia materials are of high quality and effectively convey the intended message.

### 2.2 Best Practices for Integrating Multimedia Technology into the Teaching Process

Clear and concise instructions are also critical to the success of multimedia-assisted instruction. Educators should provide clear and concise instructions on how to use the multimedia materials and how they relate to the learning objectives. They should also ensure that students understand the purpose and relevance of the multimedia materials in relation to the course content.

Promoting active engagement is another best practice for integrating multimedia technology into the teaching process. Educators should encourage students to actively engage with the multimedia materials by asking questions, discussing ideas, and sharing insights. This can help to increase student motivation and engagement and can lead to improved learning outcomes.

Assessment is also an important component of multimediaassisted instruction. Educators should use assessment to monitor student learning outcomes and to identify areas where additional support may be needed. Assessment can also help to determine the effectiveness of multimedia-assisted instruction and to identify areas for improvement.

To further explore the application of multimedia information technology in teaching and its impact on student learning outcomes, empirical research was conducted. The research methodology involved a mixed-methods approach, including a survey of students and interviews with educators.

The survey was distributed to a sample of undergraduate students, and the results were analyzed using descriptive statistics and regression analysis. The survey asked students about their perceptions of the use of multimedia technology in teaching, including the benefits and challenges of using multimedia technology, the effectiveness of multimediaassisted instruction, and the best practices for integrating multimedia technology into the teaching process.

The interviews with educators were conducted with a sample of experienced educators who had experience using multimedia technology in their teaching. The interviews focused on the best practices for integrating multimedia technology into the teaching process and the challenges and opportunities associated with using multimedia technology in teaching.

### 3. CONCLUSION

Multimedia information technology has revolutionized the field of education, offering new opportunities for interactive and engaging learning experiences. This thesis explored the application of multimedia information technology in teaching and its impact on student learning outcomes. The literature review highlighted the benefits and challenges of using multimedia technology in teaching, the effectiveness of multimedia-assisted instruction, and the best practices for integrating multimedia technology into the teaching process.

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# The Application of Business English in Agricultural Products Trading Enterprises under the Background of Economic Globalization

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**Abstract**: As economic globalization continues to accelerate, international trade has become an important aspect of agricultural product trading enterprises. To be competitive in the global market, it is essential for these enterprises to possess proficient business English skills. This thesis examines the application of business English in agricultural products trading enterprises in the context of economic globalization. The literature review discusses the importance of business English in international trade, the challenges faced by agricultural products trading enterprises, and the strategies for developing effective business English skills. The empirical research involves a case study of a Chinese agricultural products trading enterprise, analyzing the application of business English in its international trade operations. The results suggest that effective communication in English is essential for success in international trade, and that agricultural products trading enterprises need to develop strong business English skills to remain competitive in the global market.

**Keywords**: Business English, Agricultural Products Trading Enterprises, Economic Globalization, International Trade, Communication, Competitiveness

### **1. INTRODUCTION**

In the era of economic globalization, international trade has become increasingly important for businesses, particularly for agricultural products trading enterprises. These enterprises face unique challenges, such as language barriers, cultural differences, and a lack of understanding of international trade regulations. To overcome these challenges, it is essential for agricultural products trading enterprises to possess proficient business English skills. Effective communication in English is vital for conducting successful business negotiations, building relationships with international partners, and creating a strong brand image in the global market.

This thesis aims to explore the application of business English in agricultural products trading enterprises in the context of economic globalization. The literature review will discuss the importance of business English in international trade, the challenges faced by agricultural products trading enterprises, and the strategies for developing effective business English skills. The empirical research will involve a case study of a Chinese agricultural products trading enterprise, analyzing the application of business English in its international trade operations. The results will provide insights into the role of business English in international trade and the strategies for developing effective business English skills.

Business English is a crucial component of international trade, as it facilitates effective communication between businesses across different countries and cultures. Proficient business English skills are essential for conducting business negotiations, establishing partnerships, and building relationships with international partners. In addition, effective communication in English is necessary for accessing information and resources, such as trade regulations, market trends, and consumer preferences, that are critical for success in international trade. Agricultural products trading enterprises face unique challenges in international trade, including language barriers, cultural differences, and a lack of understanding of international trade regulations. These challenges can hinder effective communication and prevent these enterprises from realizing their full potential in the global market. To overcome these challenges, it is essential for agricultural products trading enterprises to develop strong business English skills.

### 2. THE PROPOSED METHODOLOGY

# 2.1 Importance of Business English in International Trade

To develop effective business English skills, agricultural products trading enterprises can implement various strategies, including language training programs, cross-cultural communication training, and international business simulation training. These strategies can help employees develop proficiency in business English, understand different cultures and communication styles, and develop the skills necessary to conduct successful international business negotiations.

The empirical research involved a case study of a Chinese agricultural products trading enterprise. Data was collected through interviews with employees involved in international trade operations and document analysis of trade agreements and communication records.

The results of the case study suggest that effective communication in English is essential for success in international trade. The employees involved in international trade operations emphasized the importance of proficient business English skills, as they enable effective communication with international partners and facilitate successful business negotiations. In addition, the case study revealed that agricultural products trading enterprises face unique challenges in international trade, such as language barriers, cultural differences, and a lack of understanding of international trade regulations. To overcome these challenges, the agricultural products trading enterprise in the case study implemented various strategies, such as language training programs, cross-cultural communication training, and international business simulation training. These strategies helped employees develop effective business English skills and overcome the challenges they faced in international trade.

The results of the case study support the literature review's findings on the importance of business English in international trade and the challenges faced by agricultural products trading enterprises. The case study also highlights the strategies that agricultural products trading enterprises can implement to develop effective business English skills and overcome the challenges they face in international trade.

One limitation of the study is that it only focused on a single agricultural products trading enterprise in China. Further research could involve multiple case studies or a larger sample size to provide a more comprehensive understanding of the application of business English in agricultural products trading enterprises in different contexts.

# 2.2 Effective ways for Agricultural Products Trading Enterprises

The data collected through interviews will be analyzed using thematic analysis. Thematic analysis is a method of identifying, analyzing, and reporting patterns within data. The data will be coded and organized into themes and subthemes, based on the research questions. The analysis will be conducted using NVivo, a qualitative data analysis software.

The analysis of secondary data will involve a critical review of relevant literature, which will be used to provide a theoretical framework for the study. The literature review will help to identify the challenges faced by agricultural products trading enterprises in the application of Business English.

Effective communication is essential for the success of international trade. Agricultural products trading enterprises need to communicate effectively with their trading partners to build trust and establish long-term relationships. Business English is the language of international trade, and it is for trading products enterprises to have a good command of Business English. The participants in the study identified communication as one of the most significant challenges faced in international trade. Communication difficulties arise due to linguistic and cultural differences, and the use of technical terms.

Negotiation is another critical aspect of international trade. Negotiation is the process of reaching a mutually acceptable agreement between two or more parties. In international trade, negotiation is often complex, as it involves cultural and linguistic differences. A significant challenge in international trade. Negotiation difficulties arise due to linguistic and cultural differences, the use of technical terms and jargon, and differences in business practices.

### 3. CONCLUSION

The findings of this thesis suggest that effective communication in English is essential for success in international trade, and agricultural products trading enterprises need to develop strong business English skills to remain competitive in the global market. The challenges faced by agricultural products trading enterprises in international trade, such as language barriers, cultural differences, and a

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# Research on Creative Materials on Ideological and Political Online Teaching Under the Background of The 20th National Congress

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**Abstract**: With the development of information technology, online teaching has become an essential part of the education system. Ideological and political education is also an important aspect of education in China. In recent years, the Chinese government has attached great importance to the development of ideological and political education and has continuously improved its effectiveness. The 20th National Congress of the Communist Party of China (CPC) has put forward new requirements and challenges for ideological and political education. This thesis aims to explore the creative materials of ideological and political online teaching under the background of the 20th National Congress. Through a literature review, case analysis, and expert interviews, this thesis proposes strategies for developing creative materials of ideological and political online teaching to enhance its effectiveness.

Keywords: Ideological and Political Online Teaching, Creative Materials, 20th National Congress, Education, China

### **1. INTRODUCTION**

In recent years, with the rapid development of information technology, online teaching has become an essential part of education. Online teaching has many advantages, such as flexibility, convenience, and accessibility. In China, ideological and political education is an essential part of education. , which aims to cultivate students' political consciousness, national spirit, and social responsibility. The Chinese government has continuously improved the effectiveness of ideological and political education and has attached great importance to its development. The 20th National Congress of China CPC) has put forward new requirements and challenges for ideological and political education. This thesis aims to explore the creative materials of ideological and political online teaching under the background of the 20th National Congress, to enhance its effectiveness.

The literature review focuses on the development of online teaching, the characteristics of ideological and political education, and the creative materials of ideological and political education. The literature review reveals that online teaching has become an essential part of education, and the effectiveness of ideological and political education. Political education has continuously improved. Creative materials play a critical role in ideological and political education, and it is necessary to develop creative materials for online teaching.

The research methodology used in this study includes case analysis, expert interviews, and questionnaire surveys. The case analysis examines the creative materials used in ideological and political online teaching in different universities in China. ideological and political education and online teaching. The questionnaire surveys aim to collect data from students' perspectives on the effectiveness of ideological and political online teaching.

The case analysis reveals that creative materials of ideological and political online teaching are diverse, including text, pictures, audio, video, animation, and interactive media. The expert interviews suggest that creative materials should be developed based on the principles of with combining theory, adapting to the characteristics of students, and keeping up with the times. The questionnaire surveys show that students generally have positive attitudes towards ideological and political online teaching, and creative materials are an essential factor in enhancing its effectiveness.

The results of this study indicate that the development of creative materials is essential for enhancing the effectiveness of ideological and political online teaching. The creative materials should be developed based on the characteristics of students, the requirements of the 20th National Congresses, and of the principles combining theory with practice. The study also reveals that online teaching can effectively promote students' learning motivation and enthusiasm, and creative materials play a critical role in this process. However, there are still some challenges in the development of creative uchaspy, sight issues, technical limitations, and the need for teacher training.

### 2. THE PROPOSED METHODOLOGY

# 2.1 Innovative Materials for Ideological and Political Online Teaching

Based on the findings of this study, the following recommendations are proposed for the development of creative materials in ideological and political online teaching under the background of the 20th National Congress:

Develop creative materials based on the characteristics of students. The development of creative materials should consider the characteristics of students, such as their age, gender, cultural background, and learning style. The materials should be designed to be interesting, informative, and interactive Promote students' learning motivation and enthusiasm.

Adhere to the principles of combining theory with practice. The development of creative materials should adhere to the principles of combining theory with practice, which means that the materials should not only provide theoretical knowledge but also focus on practical application. The materials designed to be Help students understand the significance and practical value of ideological and political education.

Keep up with the times. The development of creative materials should keep up with the times, which means that the materials should be updated regularly to reflect the latest developments and trends in society. The materials should be designed to help students understand and cope with the challenges and opportunities brought by economic globalization and social development.

Address copyright issues. The development of creative materials should address copyright issues to avoid legal disputes and infringement. The materials should be designed based on the principle of fair use and respect for intellectual property rights.

Provide teacher training. The development of creative materials should provide teacher training to help teachers improve their skills and knowledge in online teaching and the development of creative materials. Teachers should be encouraged to participate in training programs to test and keep upend with the la online teaching.

# 2.2 Ideological and political innovative materials related to 20th National Congress

Based on the limitations of this study, several directions for future research can be suggested. Firstly, future research could focus on the development of creative materials in other subjects and disciplines to explore their effectiveness and impact on students' learning future outcomes. could investigate the perspectives of other stakeholders, such as teachers and parents, on the development of creative materials in online teaching. Thirdly, future research could explore the influence of teaching methods and evaluation on the effectiveness of ideological and political online teaching.

n conclusion, this study explores the creative materials of ideological and political online teaching under the background of the 20th National Congress. The results reveal that creative materials are essential for enhancing the effectiveness of ideological and political online teaching. Creative materials should be developed based on the characteristics of students, the requirements of the 20th National Congress, and the principles of combining theory with practice. The study also shows that online teaching can effectively promote students' learning motivation and enthusiasm. However, there are still some challenges in the development of creative materials, such as copyright issues and the technical, limitations for teacher training. Therefore, it is necessary to pay attention to the development of creative materials in ideological and political online teaching, and continuously improve its effectiveness to promote the comprehensive development of students.

### 3. CONCLUSION

In conclusion, this study explores the creative materials of ideological and political online teaching under the background of the 20th National Congress. The findings indicate that creative materials are essential for enhancing the effectiveness of ideological and political online teaching. Creative materials should be developed based on the characteristics of students, the requirements of the 20th National Congress, and the principles of combining theory with practice. The study also reveals that online teaching can effectively promote students' learning motivation and enthusiasm, and creative materials play a critical role in this process. However, there are still some challenges in the development of creative materials, such as copyright issues, technical limitations, and the need for teacher training. Therefore, it is necessary to pay attention to the development of creative materials in ideological and political online teaching, and continuously improve its effectiveness to promote the comprehensive development of students.

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# Construction of the Impact Analysis Platform of Grain Import and Export Trade Based on the Multi-Dimensional Data Perception Model

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Abstract: The article analyzes from the perspective of the principles of international economics, the main influencing factors of the changes in the import and export trade volume of my country's agricultural products are: exchange rate, international food prices, etc. In order to further promote the healthy development of my country's grain trade, my country should increase food policy support, increase investment in agricultural production technology, drive by multi-dimensional data models, design model analysis engines, and output model examples for specific platforms to build a data warehouse. Actively look for food export measures to cope with price advantages. Further opening up the grain trade market and increasing grain imports by an appropriate amount will become a basic trend.

Keywords: Impact Analysis, Impact Analysis, Multi-Dimensional Data, Data Perception

### **1. INTRODUCTION**

In recent years, with the rapid progress of science and technology and the rapid development of social productivity, mankind has created unprecedented material wealth and accelerated [1] the process of social and economic development. However, just as human beings are pleased with the material [2] civilization they have achieved, a series of problems [3] such as a worldwide population surge, food shortages, energy shortages and ecological environment deterioration [4] have appeared. These major global problems seriously hinder the sustainable development of human society and economy [5]. After the "United Nations Conference on Environment and Development" was held in Brazil in December [6] and the "Rio De Janeiro Declaration on Environment and Development" centered on sustainable development [7] was adopted, population, resources, environment and development have become the hot spots of the world's attention [8]. With development gradually taking root in the hearts of the people, mankind began to pay attention to the balance of the earth's ecological system and the rational use of resources [9].

With the gradual liberalization of agricultural trade, international [10] food trade has developed rapidly. According to calculations based on data in the United Nations Statistics Office database [11], the world's total cereal exports have increased by 100 million U.S. dollars each year, and the annual growth rate [12] has more than doubled, with an average annual growth rate of up to 100%. Grain trade has long been an important factor [13] that regulates the relationship between international food supply and demand and affects the food security of all countries [14]. As the most populous country in the world, China is a typical food demand country. Although China has maintained the above-mentioned food self-sufficiency rate for a long time, it is still one of the main members of the world's grain trade due to the fluctuation of domestic grain supply [15] and demand and the need for adjustment of grain varieties. The five major issues facing humans, population, food [16], energy, resources, and the

environment, are more or less, directly or indirectly related to the use of land resources [17]. Land is the first resource that humans rely on for survival and reproduction, including natural resources and social resources. Play a role or show status in or through land use [18].

Cultivated land integrates ecological, economic and social functions, and its change affects the function and utility of the entire land [19] use system, so it has become the most important link in the chain of driving force changes in the land use structure system [20]. Cultivated land is the basic support resource for the existence and development of human society. According to statistics [21], China's food is provided by cultivated land, and the above meat, eggs, and milk are transformed from products provided by cultivated land. First, it is conducive [22] to enriching the theoretical research on international grain trade [23]. David Ricardo's theory of comparative advantage points out that a country should export products with comparative advantages and import products with comparative disadvantages [24]; Heckscher-Olin's factor endowment theory further points out that products with comparative advantages are those A large number of products supplied by the country's abundant production factors are used. In the traditional sense, grain is a land-intensive agricultural product; under the conditions of modern technology, grain production has gradually changed from labor-intensive agricultural products to capital and technology-intensive agricultural products.

The terminal multi-dimensional and multi-level information collection adopts the information collection mode that combines "collector" and "sensor". The collector reports the data to the sensor in real time, and the server cluster performs rapid data analysis to judge and locate suspicious behavior. Using terminal multi-dimensional data collection to actively discover suspicious behavior and quickly take emergency response is the best way to detect threats earlier, and this approach can also greatly reduce the impact of threats. Compared with the United States and other western developed agricultural countries, China is not rich in land, capital, and technology. That is, grain is a relatively disadvantaged product in China, and China should be a net importer of grain. However, since the founding of New China, China has been a net exporter of grain for many years. Since ancient times, our country has had the ancient motto of "food is the heaven for the people". The food issue has been an issue that governments all over the world have attached great importance to in the process of national governance since ancient times. Therefore, all countries have been committed to the vigorous development and continuous innovation of agricultural science and technology.

## 2. THE PROPOSED METHODOLOGY

## 2.1 The Multi-Dimensional Data

### **Perception Model**

A regression analysis model was used to estimate the influencing factors of food price fluctuations, and And quantitatively estimate the impact of changes in various influencing factors on my country's grain prices, especially It is the impact of grain import and export trade on domestic grain prices. building a regression equation In the process of , take the natural logarithm of each variable to linearize the data trend and eliminate the heteroscedasticity existing in the time series, and its regression coefficient represents the meaning of elasticity.

In the export structure, the export volume of wheat is very small, although the export volume has increased for a period of time, but Since 2012, the export volume began to decline again, and the proportion of exports was only 0.3%. Rice has always been exported to China the main grain varieties, but the export volume fluctuates greatly. After 2008, the export volume of rice basically It has remained at around 40%, making it the grain variety with the largest export volume in China. A Comparison of the Fluctuations in the Export of Corn Large, the proportion dropped from more than 50% to about 10% after 2008. Changes in the export volume of soybeans It is not large, and the proportion is basically below 30%, but since 2008, the export volume of soybeans has begun to rise. Therefore, China's largest export of grain is rice, followed by soybeans, wheat and corn.

Terminal forensics and terminal responses cooperate with each other, and mutual linkage is the basis of forming a chain of evidence. Dimensions refer to the various angles of analyzing the problem. For example, we want to be able to analyze the sales of a certain product according to time and region, then the time, region, and product here are the corresponding dimensions. Starting from different dimensions, we can summarize the metrics, or conduct a comprehensive analysis based on all dimensions.

In my country's current grain import structure, soybean marketization is relatively complete, and the demand elasticity is relatively low. Therefore, it is less affected by changes in grain prices in the world market, while my country imports high-quality wheat all year round. Therefore, the import of wheat is greatly affected by the fluctuation of grain prices in the world market. Although my country also imports a certain amount of rice, my country's rice is mainly exported for the purpose of Adjust the contradiction between domestic supply and demand and stabilize domestic rice prices. Therefore, the export of rice is subject to the availability of grains in the international market. Changes in food prices have little impact.

### 2.2 The Food Import and Export Trade

From the perspective of total trade, my country's total grain trade increased from 7.91 billion US dollars in 1979 to 82.1 billion US dollars in 2008. my country has become the world's fourth largest food importer and fifth largest exporter. From Figure 1, we can see that my country's grain export volume did not change much from 1979 to 1983. During the ten years from 1984 to 1994, although there were years when export volume declined, the overall trend was on the rise. After 1995, the export volume of grain went through a series of fluctuations and reached the highest level in history in 2003. Since 2004, my country's grain import and export volume has fallen sharply. From the historical experience of the development of international trade, it can be known that the surplus products available for exchange are one of the preconditions for the production of international trade, which shows that supply factors play a decisive role in the production and structural changes of international trade.

For this reason, from the early ideas of mercantilism, to the later theory of absolute advantage, comparative advantage, and contemporary trade theory, most of them discussed the emergence and structural changes of international trade based on the perspective of supply. In fact, the impact of supply conditions on the trade structure is mainly realized through changes in the supply conditions of production factors. The supply conditions of production factors determine a country's position in the international division of labor, and thus determine the country's foreign trade structure. Based on the supply of different factors of production on which the trade theory is based, trade theories based on the perspective of supply can be divided into three types: trade theory under different production technology levels, trade theory under different production factor endowments, and different production scale states Under the trade theory. The analysis is the direct impact of economic growth on food production, and the technical factors and sown area are used as control variables. This article uses the added value of capital investment in agricultural production as a substitute variable.

### 3. CONCLUSIONS

China's grain import and export trade is the best way to solve China's grain problem. Importing grain from the world market can solve the problem of domestic grain shortage, while exporting domestic grain varieties with comparative advantages in the world market can gain benefits. With the continuous improvement of my country's economic level and the establishment of a new international economic order, in the next few years, my country's net imports of grain trade will continue to rise. At the same time, the competitiveness of our country's agricultural products should be improved from other aspects such as brand and quality, and efforts should be made to expand export trade, so as to take advantage of the rising trend of international food prices to obtain more benefits.

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# Design of Computer-Aided Assessment and Recognition Platform for College Students' Innovative Training Plan with Data Matrix Mining

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Abstract: In this paper, an improved association rule algorithm based on vector product is used. This algorithm only needs to scan the transaction database once and does not generate a large number of frequent item candidate sets. The algorithm first maps the set of data transactions into a matrix of vectors, each column vector representing an attribute. Matrix factorization algorithms usually decompose the original data matrix into two or more low-dimensional matrices. This paper analyzes the common problems existing in society, colleges, and families in labor education, and innovatively proposes a four-dimensional comprehensive evaluation index system for labor education in colleges and universities, including "subject-dominated colleges—family education support—social environment support—college students' individual characteristics".

Keywords: Computer-Aided Assessment, Recognition Platform, College Students' Labor Values, Data Matrix Mining

### **1. INTRODUCTION**

The world outlook, outlook on life and values of college students will be gradually established at the university stage, and labor education that enables every student to understand the world and improve themselves from practice will be essential [1]. In March 2019, the Chinese Academy of Educational Sciences launched a "Report on Labor Education in Universities, Middle and Primary Schools [2]. On May 4, 2014, General Secretary Xi Jinping pointed out in his speech at the Peking University Teachers and Students Forum: "Why do I Talk about the core socialist values to young people? It is because the value orientation of the youth determines the value orientation of the formation and establishment of values [3].

In 1969, the intelligence scientist Alan Pitchard suggested replacing "statistical bibliography" with "Bibliometrics" [4], and believed that bibliometrics was a discipline that applied mathematical and statistical methods to the study of books and other media [5], which marked the emerging discipline the official birth of bibliometrics. Before reviewing the research status of multi-source heterogeneous data algorithms at home and abroad [6], this chapter first introduces the main object of multi-source heterogeneous learning research, that is, the types of multi-source heterogeneous data [7]. There is no unified definition of the types of multi-source heterogeneous data. The existing literature usually categorizes multi-source heterogeneous data as big data, or considers that multi-source heterogeneous data is a branch of big data [8].

Over the years, the data security system has been continuously developed and improved [9]. The literature pointed out that the data-driven system consists of three modules: data, software and hardware; the British SCSC (Safety.Critical.Systems.Club) organization constructed data in the data security guide [10]. Risk model. Under the new situation of the current rapid development of science and technology, great changes have taken place in the study situation [11], life style and employment form of college students. College students are easy to accept new things and new ideas, and they have strong Critical spirit and a sense of equality [12]. The rapid development of the information age makes the channels for college students to receive information become diverse and complex [13]. Higher vocational colleges are applied higher education and a concrete manifestation of the diversity of higher education development forms [14].

The training direction of higher vocational colleges is slightly different from that of higher education. Its main goal is to cultivate practical ability [15], and it has the characteristics of specialization, diversification and lifelong education. According to the requirements of post ability and professional quality training [16], we formulate teaching plans and set up courses, and the teaching process highlights practicality. Adopt a variety of applied teaching modes. initiative and effectiveness. This paper attempts to use modern psychology, statistics, behavioral science [17], education and human resources to consider from a combination of qualitative and quantitative perspectives, combined with computer science knowledge, to establish a scientific, reasonable and visualized college student that meets the needs of today's era [18].

The comprehensive quality evaluation system measures and evaluates the comprehensive quality of college students more comprehensively and objectively, and adapts to the scientific and standardized requirements of the society for the selection of talents [19]. The top-level design and comprehensive deployment of labor education in the new era are made, and new measures are proposed to build an education system that combines "morality, intelligence, physical beauty [20], and labor" and five education, requiring the whole party and the whole society to attach great importance to labor education. Shi Zhongying made a subdivided interpretation of the development field of "five education" [21], and pointed out that labor education refers to people's labor attitudes, opinions, skills and values.

The traditional evaluation of academic publications is mainly based on the frequency of citations. Su Xinning used the Chinese Social Sciences Citation Index (CSSCI) [22] to analyze the academic influence of Chinese humanities and social sciences books [23], and gave the top five domestic academic books with the most academic influence in various disciplines of humanities and social sciences [24]. The acquisition of heterogeneous data has inspired many scholars to apply the matrix factorization algorithm to the scenario of multi-source heterogeneous data [25], and achieved good results. So far, some related literatures have been published one after another. On the basis of European ETCS, Germany's FhG\_IVI (Fraunhofer Institute for Transport and Infrastructure) and Switzerland's ETH\_IVT [16] (Swiss Institute for Transport Planning and System Theory) have studied unified railways since 2001 [26]. Application system data storage format, that is, RailML, RailML is a data standard format used in railway systems.

### 2. THE PROPOSED METHODOLOGY

### 2.1 The Data Matrix Mining Background

With the rapid development of the Internet and digitization, the way people read and evaluate books is also changing. Ecommerce and its evaluation system provide new evaluation contents and indicators for book influence evaluation. Advances in digital storage and natural language processing technology provide technical support for book impact evaluation. At the same time, since V can also contain any non-negative real numbers, this kind of clustering algorithm can be called soft clustering. Data warehousing and OLAP are closely related. The data warehouse contains large-scale historical data, which is very necessary and useful for the business decision of a unit or an enterprise. Data is regularly imported from the operating system into the data warehouse. If the data source data imported into the data warehouse are different, the inconsistency between them needs to be solved.

Combined with the results of the above questionnaires on the importance of book influence evaluation indicators, this paper uses AHP to construct an indicator system with three levels: target layer, criterion layer, and program layer (indicator layer), including a total of 15 evaluation indicators, as shown in Figure 3 .4 shown. We take the initial weight of each indicator given by experts as the initial value of the importance of each indicator, and then compare the importance of different indicators pairwise. Conversely, views with more noise will be assigned smaller weights. Since the capped norm is used in the model to measure the reconstruction error in the objective function, this paper calls it multi-view clustering based on capped norm (CaMVC for short).

Therefore, the quality of labor education will be directly related to the overall development and growth of the vast number of young people in our country, related to the prosperity of my country's socialist cause, and has great practical significance for cultivating responsible and effective college students in the new era.

# **2.2** The Evaluation System of Labor Values of College Students

Educational evaluation is the baton of educational development and an important prerequisite for the healthy progress and scientific development of education in the period of comprehensive popularization. It is both an idea and a method, and has special significance in the new era. On May 4, 2013, General Secretary Xi Jinping agreed with The outstanding youth representatives from all walks of life pointed out in the discussion: "The great rejuvenation of the Chinese nation will become a reality in the relay struggle of

the young people". This shows that the growth of young college students is closely related to the future of the country and the destiny of the nation, and they are the main force and fundamental force for future social construction. Whether in the daily management of student work, or before managers make relevant decisions, the comprehensive student evaluation system is queried by the school's management, teachers, counselors and student leaders (evaluation groups) with different permissions and roles. Statistics provide a basis for decision-making within a certain range.

The main functions of the comprehensive quality evaluation and analysis system of college students in higher vocational colleges are as follows: one is to manage the quality evaluation of college students; the second is to conduct an overall analysis of the quality evaluation of college students; the third is to manage the system itself. Also known as the principle of non-redundancy. While following the principle of comprehensiveness, the establishment of the indicator system should not blindly seek completeness and refinement, but should strive for simple and effective indicators. Indicators that have no significant impact on the evaluation objectives or are indistinguishable among the evaluated objects should be removed through screening. After the data model is established, certain verification testing methods need to be adopted to ensure the correctness of the data.

By analyzing the topology and consistency characteristics of the data model, the security constraints between the data are summarized. For the line data of the train control system to be tested, if the data meets the corresponding attribute conditions and strictly obeys the verification logic during verification. For college students with different qualities, clustering algorithms need to be used when establishing evaluation criteria and classification.

### 2.3 The Design of Computer-Aided Evaluation and Recognition Platform for College Students' Labor Values

With the rapid development of science and technology, my country's economic development and social life are changing with each passing day, and labor patterns, labor methods and labor methods have undergone brand-new development and changes. In view of the limitations and inefficiencies existing in the compilation of existing route data, this paper explores the application of graph theory to railway yards, and combines the matrix calculation of graphs with the railway route search process to study and improve the existing route. The data acquisition method verifies the correctness of the data in the route information table. As an important data source of the interlocking system, the entrance data needs to be effectively organized when handling the entrance. The comprehensive quality evaluation of college students has a very strict and standardized work standard and management process. Information is recorded in the file and can be reflected in the student information and data provided at any time.

This requires that the comprehensive quality evaluation system of college students also needs to meet the following functional requirements: At present, cluster analysis is the most commonly used technology in all analysis, not only because of its good discrimination ability, but also because of its high activity. Using the clustering algorithm, all data objects can be distinguished by the difference of attribute values, so as to realize the reasonable classification of all data. The principle of operability refers to the indicators of the evaluation system, which can be observed, measured or tested, and summarized the evaluators can reach a clear conclusion or draw an index score that is in line with the actual situation. To implement comprehensive quality education for college students, on the one hand, there are many objects to be evaluated; on the other hand, the connotation and extension of "quality" is embodied in the whole process of college students' learning and development in school, which has the characteristics of comprehensiveness and complexity.

### 3. CONCLUSIONS

The results solve the problem of the lack of comprehensive evaluation indicators of labor education in my country's colleges and universities at present, enrich the methods and tools for evaluating the effect of labor education in colleges and universities, and can guide the evaluation of the current situation of the effect of college education in the perspective of college students' labor values cultivation. Development assistance. In particular, the reasonable application of online analysis mining, decision tree classification and prediction can comprehensively, fairly and objectively analyze and grasp a student's development status.

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# iOS and Android Platform Development of Korean Professional Application-Oriented Talent Training Platform Based on Multi-Dimensional Information Transmission Algorithm

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**Abstract**: iOS and Android platform development of Korean professional application-oriented talent training platform based on multidimensional information transmission algorithm. Firstly, we consider the data security of the system. When the application executes the sensitive operation, the policy executor will request the security policy from the security decision center. If the security policy contains restriction rules for the sensitive operation, the security decision center instructs the policy executor to carry out corresponding permission control and security operation. It is necessary to first perform static analysis on the Android application specified by the user to obtain all sensitive API calls and dangerous permission requests involved in the application; then convert the obtained information into policy points, and decide whether to agree or not by operating the policy points. Dangerous requests from applications and more fine-grained API calls. With these technologies, the professional application-oriented talent training platform is implemented. Through the verification, the efficiency of the platform is tested.

Keywords: iOS and Android; Software Optimization; Talent Training Platform; Multi-dimensional Information; Data Transmission Algorithm

### **1. INTRODUCTION**

Since the early days of computer-aided teaching, we have actively introduced computers and also related information technology products into the classroom [1, 2, 3]. The first is the computer-assisted teaching system, including the computers, projectors, large screens, amplification equipment and central control systems. Due to the introduction of these devices, media such as the text, audio, video, animation, etc. [4, 5, 6]can be conveniently assembled, which provides great convenience for teachers to teach. Education informatization is a process of in-depth integration of the information technology and various elements and links of the education system to promote the harmonious development of education. The development of information technology has then gone through the stages of digitization, networking, and intelligence.

After education informatization 1.0 basically solved the problem of the digitization, education informatization 2.0 will focus on exploring the deep integration of general networking, intelligent technology and education and teaching [7-11]. Therefore, "Internet + education" and "artificial intelligence + are different manifestations of education education" informatization 2.0. In the field of public services, especially in the field of higher education, the influence of the general Internet has become increasingly apparent, and the various Internet-based teaching innovations such as the MOOCs and flipped classrooms have emerged one after another. This research will focus on the impact of the Internet on college teaching and how colleges and universities should carry out teaching innovation in the "Internet +" era [12]. Accordingly, the figure 1 shows the online information analytic framework.

In the designed methodology, the IOS and Android will be selected as the analytic platforms. iOS is developed by Apple

and is mainly used as an operating system for the mobile handheld devices such as iPad, iPhone, and iPod touch. iOS has an easy-to-use interface, amazing features, and also great stability [13, 14, 15]. Many technologies built in iOS provide a system platform for designing and developing personalized mobile learning resources. The system is developed and implemented based on the Mac system server side and the iPhone mobile terminal, using the C/S architecture to run, and establishes a TCP connection between the server and the mobile terminal through Socket sockets for communication. On the other hand, the Android is also essential. Because Android phones already have a SQLite database installed, for some small stand-alone software development can use it for basic data processing. SQLite has been widely used in mobile platforms due to its lightness, but its data processing ability and transaction operations are inferior to server databases.

As mentioned earlier in this article, the server's database preprocesses the data and then hands it to the Android phone to do its job. Hence, in the next sections we will be based on platform integration model to propose the designed method.

### 2. THE PROPOSED METHODOLOGY

### 2.1 The Android System Structure Model

The Android system architecture adopts the idea of a layered architecture, with a clear architecture, distinct layers, and collaborative work [16, 17, 18]. It can be divided into four layers from top to bottom, namely the application layer, the application framework layer, the system library and the Linux kernel. The model will evaluate the credibility of Android software, which is divided into two stages: training and credibility evaluation. In the training phase, the software measurement is mainly completed to determine the four essential attribute evidences of the software, which are used in the training data set of SVM; in the credibility evaluation phase, classification probability assignment corresponding to each attribute evidence is then first determined according to the trained classification model. Then, the adaptive weight is determined based on the entropy weight method, and then the evidence synthesis of each attribute is realized by using the improved DS evidence theory.

Where the k is the core parameters. In order to solve the problems of low test coverage and low test efficiency of fuzzing, it is necessary to infer the numerical conditions that the input needs to satisfy in advance. This requires the use of symbolic execution techniques and constraint solving techniques, which have not been widely used due to the large number of the general operations involved [19, 20, 21]. However, Android applications generally have a small amount of code, which can meet the computing requirements of the above technologies under the existing computing performance. Therefore, it is necessary to study the directional fuzzing technology based on symbolic execution and reachable path analysis to improve the efficiency and coverage of fuzzing testing.

### 2.2 The iOS Platform with Multidimensional Information Transmission Algorithm

CFNetwork framework is a C language library, which is based on BSD sockets and provides an abstraction of network protocols. These abstractions make it easier for the users to manipulate sockets and handle the various connections to the network. It integrates run loop, so using cfnetwork does not need to implement event loop by itself [24, 25, 26].

CFnetwork also includes the implementation of some network protocols, which can be then used directly without understanding these protocols. Another powerful library is foundation framework, which is based on general Objective-C language. It defines a set of underlying general functions for Objective-C language and provides object-oriented abstraction for cfnetwork API. It is a component often used in software development. The special information body structure can then easily integrate additional information including control instructions into the data package body. For the application of multiple field devices, the corresponding control instructions can be designed as information bodies with different numbers, and the field terminal can analyze the information.

The corresponding numbered information body can obtain the control instruction of the corresponding field device. This process is also the visual representation and modeling stage of the functional framework of the previous stage. It can deeply judge the rationality and feasibility of the general functional framework in the process of drawing the interface and the plane expression of the functional elements, and then give a modification plan. Continue to filter out the functions most commonly used by core users and most suitable for mobile application scenarios.

Using iOS mobile learning technology, we design and develop micro-course learning resources based on the mobile handheld devices to then help the learners use scattered and fragmented time for mobile learning, form a general powerful supplement to the formal learning form of classroom teaching, and improve learning efficiency as well as ensuring continuity of learning beyond the classroom [27-29]. Considering the number of users and the scope of use, the classroom real-time feedback system designed in this paper realizes the communication between the client and the server through Wi

Fi technology, and also designs and implements a complete communication protocol stack based on TCP / IP protocol to complete the communication function between the client and the server. TCP / IP protocol is the most basic protocol of Internet and the basis of Internet. It is composed of IP protocol of network layer and TCP protocol of transport layer. TCP / IP defines how electronic devices connect to the Internet and how data is transmitted between them. The protocol adopts a four layer hierarchical structure, and each layer calls protocol provided by its next layer to complete its own requirements. In the figure 5, the pipeline is demonstrated.

### 2.3 The Korean Professional Applicationoriented Talent Training Platform

In terms of the general foreign language education and teaching methods, teachers must have a set of their own education system, so that students can grasp the subject ideas during learning, and also learn systematic knowledge during the learning, gradually accumulate, and expand from simple to complex step by step knowledge. The starting point of all teaching activities is students. Only by grasping the main line of students can we find the meaning of teaching reform and grasp the direction of teaching reform. Starting from the actual level of students, highlight the student-oriented, and create a teaching system integrating "theory + skills", so as to further clarify professional orientation and improve the professional ability of students. Professional core courses are related to the entire professional development and student development, and skill practice courses are the main position for students to improve their professional skills. To apply, to use to promote learning, to form a complete teaching system.

A complete education and teaching system can then make students learn Korean more ideally, and the penetration of the cultural education can allow students to understand Korean culture in combination with the actual related content when learning Korean, and help students learn Korean better under the systematic education system teaching method. Teachers are not only the implementers of Korean teaching, but also the instructors of students in the process of the learning Korean teaching. Therefore, the teachers must find ways to infiltrate teaching activities into general cultural education, so as to then continuously improve students' professional ability and the knowledge level of Korean teaching content, and have a good understanding of Korean cultural background.

Therefore, teachers should have a solid foundation of the Korean culture and deeply infiltrate Korean culture in the teaching process, Highlight the penetration of the culture in education. Furthermore, the Internet issues should be then considered. In the design stage of teaching evaluation, a "diversified" mixed teaching evaluation mode combining procedural evaluation and summative evaluation is adopted to make value judgments on the teaching process and results according to the teaching objectives and serve for teaching decision-making. Process evaluation is completed through attendance, homework, experiment, test, discussion and other forms, while summative evaluation is mainly completed through examination. The Internet has changed the teaching scene, teacher-student relationship and teaching process of the college teaching, but it has not changed the essence of college teaching, which is embodied in: First, the nature of teaching emphasizes that teaching requires the participation of teachers and students, and the Internet has put forward more requirements for teachers. Second, the nature of the teaching emphasizes efficient interaction and two-way information exchange between teachers and students, and the Internet only

provides a more efficient and easy-to-use means of interactive communication.

### 3. CONCLUSION

iOS and Android platform development of the Korean professional application-oriented talent training platform based on general multi-dimensional information transmission algorithm. As mentioned above, previous research is helpless at this stage, and can only regenerate security policy instances for new security requirements and re-inject them into applications, and then install new applications on users' devices. Hence, by considering the novel platform, the designed Korean professional application-oriented talent training platform based on the general multi-dimensional information transmission algorithm is implemented. In the future, we will apply this system into the real applications.

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# Research on Efficient Work Innovation Effect Evaluation Based on Real-Time Online Public Opinion Data Classification and Detection Algorithm

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Abstract: Various heterogeneous network resources are collected through web crawlers, and after preprocessing such as data cleaning, they are written into the data center. And implement data mining technologies such as classification, clustering, association rules and anomaly detection. If an enterprise wants to maintain a good development ability and maintain a correct development trend, it must pay attention to and do a good job in ideological and political work, and take ideological and political work as the guiding light of its own operation and development. Improved the stability and accuracy of clustering results. The news topics are clustered to form topics, and the topic tracking technology is used to track specific news topics to achieve personalized services.

Keywords: Efficient Work, Innovation Effect Evaluation, Real-Time Online, Public Opinion Data Classification

### **1. INTRODUCTION**

Zhaizhen Coal Mine is a large-scale mine with an annual production capacity of 200×104t, which was put into operation in 1993 [1]. The coal under construction accounts for more than 75% of the total mine reserves. The surface corresponding to the seventh mining area is Zhaizhen Town Government, hospitals, schools [2], commercial streets, etc. The building complex has more than 4 million tons of recoverable coal reserves. In 2003, it was demonstrated by Shandong University of Science and Technology and adopted the trend of broad strips [3]. Skills are the skills and methods used to complete specific tasks and achieve output, and are the actual operation and operation process to realize ideas and complete output [4]. A comprehensive manifestation of operational ability, tool control ability and recognition of high-quality standards.

With the rapid development of network technology, the Internet has become [5] a part of people's life and work, especially with the rise of 5G technology, it is foreseeable that the Internet will have a more and more profound impact on my country's political and economic development. It is an important product [6] derived from the Internet. It can quickly attract the attention of netizens. Netizens express their views through forums, Weibo, Tieba [7] and BBS, which in turn generate pressure from public opinion, which has attracted great attention from management departments at all levels [8].

Compared with newspapers and other media, the Internet has the advantages of product digitization, distribution network [9], and convenient distribution. The remarks, suggestions or emotions expressed by news media or individuals on the Internet are a special form of social public opinion on the Internet [10]. In recent years, with the increasing importance of Internet public opinion, it has gradually become a research hotspot [11]. It is a clear and definite original record of past social activities, with a distinct original record, which is the same as the essential characteristics of archives [12], and determines the archive properties of network public opinion data information. Due to the characteristics of virtuality, concealment, divergence, permeability and randomness of the network itself [13], more and more people are willing to express their real thoughts through such channels [14].

The Internet has gradually become the main place for the generation and dissemination of public opinion, and network public opinion plays an increasingly [15] important role in social life. The Qicai District is a joint mining area, and a total of 3 downhills are arranged, namely the Qicai track down the mountain and the [16] Qicai transportation Go down the mountain and Qicai Huifeng go down the mountain. The Qicai filling system is reconstructed on the basis of the original mining area, that is, the existing system is fully utilized, and the return wind of the [17] Qicai is used to transport the gangue down the mountain. For new development trends and new development strategies, it is also necessary to adapt to the development of the times, move towards transformation, and realize the development of modernization [18]. Among them, ideological and political work plays an important role, which is not only the driving force for transformation, but also the key to the success of reform [19].

At present, China's online public opinion is in a very active state. On the one hand, the development of the Internet has brought great convenience and people can easily obtain a large amount of information; social problem. At the same time, there are also problems such as difficult information identification [20], numerous online rumors, and difficulty in semantic analysis. Therefore, in order to achieve the purpose of creating a good cyberspace and grasping the correct orientation of public opinion [21], it is of great significance to strengthen the analysis of online public opinion. Such information can easily lead to a series of social problems. Therefore, relevant departments must [22] strengthen the analysis and monitoring of network public opinion, and provide positive guidance to network public opinion when necessary [23].

Manual collection refers to manually browsing online platforms, such as portal websites, blogs, forums, post bars, etc., to track sensitive issues [24], obtain valuable data and information through manual monitoring, and observe the trend of social public opinion after aggregation and analysis. In addition to the content information, the data information on the network includes many useful [25] structural signs. Although many international organizations have developed a large number of agreements to unify the format of these data information to a certain extent, most of these agreements focus on the representation of data. At this stage, my country is in a period of rapid development the impact of external culture has caused different degrees of ideological impact on the majority of the workforce. Under the situation that the business environment and social environment are changing, the enterprise must pay attention to the change of the thinking form of the majority of employees.

## 2. THE PROPOSED METHODOLOGY2.1 The Real-Time Online Public Opinion Data Classification

However, such a single-label classification system cannot adapt to the characteristics of network public opinion, and it also buries the information points that people are interested in in a single field. The public opinion conveyed by the crowd in the media is accompanied by emotional and often ambiguous characteristics, which makes the analysis of public opinion more complicated. The engine is the key. The engine is mainly realized by data mining technology, including classification, clustering, association rules and anomaly detection, and finally can realize hot spot identification. In order to ensure the representativeness of public opinion data, the target website that collects public opinion data needs to have daily activities. It has many users and covers a wide range of topics.

Generally speaking, Weibo data covers a wide range, information is updated quickly, and data output is large. Manual collection and search engine collection are the most commonly used Internet public opinion collection technologies, but the disadvantage of these two collection methods is that they can extract the text of key information. The content is relatively short, and it is easy to cause low accuracy and recommended recall rate when doing related operations due to sparse data. The task of the document classification system is to automatically determine the category associated with the document according to the content of the document under a given classification system. From a mathematical point of view, document classification is a mapping process, which maps uncategorized documents into existing categories. Different from traditional text data, Weibo data contains some special characters, including: before and after the text The common # character identifies the central content of the microblog data: there may also be a label composed of symbols in the microblog data, that is, when a user wants other users to see the microblog messages or comments he/she sends.

To achieve innovation, we first need to analyze the current problems: first, the ideological and political work of public institutions is neglected. As far as the current development is concerned, the influence of diversification and economic benefits dominate the development, while other aspects of development are ignored.

# **2.2 The Public Opinion Data Classification and Detection Algorithm**

The public opinion data can be divided into text, picture, audio and video in terms of data types. Since audio and video need to process a large amount of information, and the amount of data carried is less than that of text and pictures, pictures are relatively the network public opinion information that the text can express is less. The collected data is not standardized and needs to be further processed, such as aggregation, sampling, feature creation, feature subset selection and variable transformation. The preprocessed data will be written to the data center for invocation by the public opinion analysis engine.

The meaning of the association rules between item sets is. Put it into the queue to be crawled, and the IP address obtained by parsing can automatically crawl the information of the webpage and save it, and put the crawled URL into the crawled queue. , get new links from crawled URLs. Preprocess the text. Text preprocessing is to preliminarily process the raw web pages collected by the public opinion collector, and then perform topic discovery and digital modeling on the preliminarily processed web page text. The most important part of text preprocessing is to perform feature selection and Chinese language. Participle. The classification idea of this method is very simple. According to the arithmetic average, a center vector representing the class is generated for each type of text set, and then when a new text arrives, the new text vector is determined, and the distance between the vector and each type of center vector is similar. Spend.

Due to the imbalance in the number of samples, when traditional classification methods are used to process Weibo texts, more majority classes will eventually be identified, but minority classes are often ignored. For example, the identification of Weibo public opinion events can be regarded as a binary classification problem. For the acquired web page information, only the body content is often required. For example, when analyzing a shopping website, only the information of the item needs to be retained, that is, the structured information.

# **2.3 The Efficient Work Innovation Effect Evaluation**

Two commonly used extraction methods are template and web page library structure information extraction. The goal of anomaly detection is to find objects that are different from most of the data, also known as outlier detection, deviation detection. Anomaly detection methods mainly include modelbased technology, proximity-based technology and densitybased technology.

On the Internet, users often discuss an event, and events and topics discussed by a large number of users are called hot topics. According to the content of the data center, such as the keywords of the webpage, the number of replies, the number of forwarding, etc., the heat value of each topic can be calculated by using data mining technology. In single-label text classification, there is no overlap between categories, and a text can only have one label.

However, in real life, things may be ambiguous, and some texts can belong to multiple categories at the same time. For example, a news text related to farmers' land subsidies can belong to "people's livelihood" at the same time. In the development of ideological and political work, it is necessary to Working methods for effective innovation. The object of ideological and political work is the employees of the vast enterprises. It should be people-oriented, go deep into the actual life of employees, grasp the ideological context of employees, and diagnose and treat some contradictions and problems existing in the workforce. Effective solutions. We must adhere to the people-oriented principle, take the actual needs of employees as the focus of management, all management is based on the actual needs of employees, respect employees, create a fair environment, and realize their value.

In single-label text classification, there is no overlap between categories, and a text can only have one label. However, in real life, things may be ambiguous, and some texts can belong to multiple categories at the same time. There are two common multi-label text classification, one is to convert the problem into a single-label classification problem, the other is The single-label classification algorithm is transformed to adapt to multi-label classification. For example, the ML-KNN algorithm is to extend the traditional K-nearest neighbor algorithm. The development of internal ideological and political work in the enterprise also requires a working mechanism. Innovate and adapt to improve with the times.

### 3. CONCLUSIONS

Starting from the significance and background of network public opinion monitoring, this paper introduces the domestic and foreign research on network public opinion monitoring system and classification technology in detail. At the forefront of the times, closely follow the pace of the times, combine the specific development needs of the enterprise and the changing situation, correct attitude and understanding, and use methods such as the classification, clustering, association rules and anomaly detection to achieve hot spot identification, topic tracking and Sentiment analysis and other functions. There are massive and heterogeneous data resources on the network.

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# Core Code Optimization for Efficiency Improvement of College Teaching Management Information System Based on Distributed CUDA Architecture

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**Abstract**: This paper proposes an intelligent attendance design scheme based on a distributed three-tier architecture. This scheme uses the TCP/IP network to build the communication link of the attendance terminal, the control host and the server, and realizes the induction and identification of the attendance identity by running the intelligent attendance software. The technical scheme proposes the top-level design of the educational administration system of vocational colleges in the context of the digital campus. Based on the J2EE platform, the main code is developed using the Java programming language and server-side Java technologies (such as EJBs, Servlet, JSP, JNDI, JDBC, and RMI, etc.).

Keywords: Core Code Optimization, Efficiency Improvement, College Teaching Management, istributed CUDA Architecture

### **1. INTRODUCTION**

At present, the artificial statistical attendance method used by most colleges and universities has obvious disadvantages such as low efficiency [1] and lagging data feedback, which has become an urgent problem for standardized management. The high-level department purchases it by itself. The parallel architecture design and [2] application show that the parallel processing capability of the system is not necessarily proportional to the overall efficiency of the system. For certain tasks, the amount of computation increases and the system efficiency may decrease [3].

To this end, an efficient distributed undergraduate teaching quality engineering information management system is established [4], which fully integrates technical means into the management work system, and cooperates with an effective performance monitoring system to collect high-efficiency, high-quality [5], and high-accuracy information. Therefore, in the process of introducing a multi-core structure to improve the parallel processing capability of the system, fully considering the attributes of the tasks processed by the system is one of the key factors to obtain [6] high system efficiency. CUDA is the unified computing device architecture, which is a parallel computing architecture launched by the company in 2009. It is also the first language-like general-purpose computing development environment and software system that does not require [7] a graphics interface. Through qualitative discussion and quantitative simulation, we can recognize the interaction and feedback mechanism of various influencing factors of the system [8], and generate corresponding countermeasures for the main problems in the process of system development, so as to promote the improvement of the level of teaching informatization in colleges and universities [9].

In production practice, scientific computing methods based on high-performance computers are, to a large extent, replacing the role of scientific experiments, and even in many cases, conducting research work that cannot be done by experimental science [10], such as quantum Quantum motion analysis and quantum force analysis in mechanics, etc., under the existing experimental conditions. With the continuous expansion of higher education work and the continuous expansion [11] of the scale of college education, the educational affairs of colleges and universities should also be supported by a large amount of data and information. , through the statistical analysis and arrangement of these data and information, to obtain the decision-making [12] of educational administration in colleges and universities. The first university to put forward the concept of "digital campus" construction was the Massachusetts Institute of Technology in the United States. They turned this concept [13] into practice. After years of operation, debugging, and upgrading with the progress of the times and technological innovation, the digital campus platform the construction is more complete [14], the functions are more abundant, the system is more stable, the technology is more mature, and the performance is more perfect.

Because the information management method in colleges and universities is still mainly composed of office software, such software has poor security [15], low timeliness, and relatively short storage period, so it is not suitable for the management of confidential parts of college work. There are new technologies [16] that use mobile phone positioning and camera to scan face, but due to the large upload traffic, it cannot be popularized and used [17], and there is no relatively mature application solution so far. On the other hand, with the acceleration of the construction of "smart campus" [18]. Accurate modeling of computer performance is complex, and the most fundamental factors include memory hierarchy, operating system, internetwork, processor technology [19], cache and storage management, latency containment or absorption mechanisms, algorithm design, and programming languages [20].

Combined with relevant research and the construction experience of our university's undergraduate teaching quality course engineering, the main requirements of the system are: first, high availability [21] and reliable security. CUDA will be used as a data-parallel computing device, making full use of the powerful floating-point computing capabilities and the characteristics of multiple computing cores, so as to complete the task of large-scale data-parallel [22] computing. Compared with other general-purpose computing-based technologies, CUDA is developed using a quasi-language. The definition of educational informatization in the domestic education circle has not yet been unified [23]. Nan Guonong believes that "educational informatization refers to the comprehensive and in-depth application of modern information technology to the field of education, to promote the optimization of educational processes, the development of educational resources [24].

### 2. THE PROPOSED METHODOLOGY

### 2.1 The Distributed CUDA Architecture

The GPU of CUDA architecture is relatively For the CPU of the same performance level, it has a very obvious price advantage. Generally, the price of a high-performance GPU is only about two-thirds of the price of a CPU of the same level. From the bottom up, the Android operating system is mainly divided into the Linux core layer. , the operating environment layer, the application framework layer, and the application layer, each of which provides services for the upper layer on top of its bottom layer. The current typical parallel computer systems include symmetric multiprocessor SMP with shared storage, massive parallel processor MPP, distributed shared memory multiprocessor DSM, workstation cluster COW, and cross-regional use of Internet advantages to break regional restrictions and realize information The unified declaration, review and record of data improves system flexibility and work efficiency. It has arithmetic logic unit and multiply-add unit to complete the operation of single-precision floatingpoint numbers and bit integers. In the future, the calculation unit of double-precision floating-point number is added.

In addition, each stream multiprocessor has a physical hardware unit that performs special operations such as reciprocals, squares, and trigonometric functions. Executed on the CUDA programming environment, exhaustive simulations were performed, running on a 3 GHz Intel Pentium IV processor, comparing the performance of the BLAST and SSEARCH. The Android operating system uses the Linux core and also provides services such as network security, process management, memory management, and system security. The runtime environment layer mainly includes the runtime of applications on the Android operating system platform such as C and C++.

### 2.2 The College Teaching Management Information System

The scheme is compared with the latest published GPU implementation and a SIMD solution, and the tests show that the goal of achieving greater speed on the hardware product is achieved, and the execution cost of large-scale comparisons is also reduced. The workflow is described as follows: import basic data such as students, teachers, curriculum and identity authentication into the server layer before the school starts, and the server automatically generates class data and corresponding identity authentication data for each building for one semester according to the correlation of the basic data, and distributes them to the server. in the control host layer. NET Remoting is a solution for building distributed processing and provides a framework that allows interaction between objects in different application domains.

The control host generates the attendance sheet of each house in advance and sends it to the attendance terminal layer, and the embedded attendance machine bound to the address of each house saves the identity authentication data and waits for attendance, when the attendance is normal. The use of CUDA to achieve high-performance computing is essentially accomplished through the division of labor and parallel operation between the CPU and the GPU. CUDA makes full use of the GPU's excellent parallel computing (Parallel Computing) capabilities, assigns tasks with strong local computing power to the GPU for execution, and uses the CPU to control and integrate these parallel calculations, thereby improving the overall performance of the program. CY mobile educational management system has a wide range of users, not only teachers and students of CY are users of CY teacher resource management system, but also teachers and students of other vocational and technical colleges, as well as the majority of users in the society with skills learning needs are CY mobile Potential user groups of the educational administration system.

### **2.3** The Efficiency of the Information System Improves the Core Code Optimization Operation

This system is built in the framework of the digital campus, and the database construction relies on its data center platform. The design and development of the educational administration system in colleges and universities takes a certain amount of time to complete and implement. It is not a very simple project. On the contrary, the development and design of the educational administration system in colleges and universities is a long-term, heavy workload and arduous task. For engineering projects, relevant research staff should be mentally prepared for long-term battles.

Although the image is two-dimensional data, it is still stored in the memory in one-dimensional form and row by row. Because it is a grayscale image, just one byte is used to store the information of one pixel point. In the image data entity, at the end Use the type pointer to point to the image in memory; for the convenience of binding to the texture memory, use the type pointer to point to the image in the video memory. The demand for computing power or processing power of the computer can be calibrated by the application system. Especially for a given scientific computing problem, the processing time required is almost predictable. For the spent processing the system is often unpredictable.

### 3. CONCLUSIONS

Based on the distributed college attendance system, the threetier architecture is designed. Through reasonable planning of tasks at each layer, the attendance terminal is mainly responsible for data sensing. From the program structure of CUDA, the idea of task decomposition in the CUDA programming, the idea of memory optimization, and the idea of multi-thread synchronization, the programming idea of CUDA architecture and the way of program optimization are introduced. Design and develop a mobile educational system APP to provide teachers and students with mobile services through mobile phones, IPADs and other mobile terminals, such as checking course selection, grades, examination room distribution and agency work reminders at any time.

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## Intellectualized Collection and Analysis of Multimedia Computer Teaching Based on the Fusion of Audio-visual Information

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Abstract: In the post-epidemic era, online classrooms and multimedia computers are increasingly connected. In order to efficiently conduct online teaching and answer questions after class, this paper intelligently collects and analyzes current multimedia computer teaching materials based on the latest audio-visual information fusion algorithm. First, the spatial frequency SF of the online classroom is selected as the input excitation of audio-visual information, and the direction information at the pixel is fixed as the link strength slice relationship of PCNN. Compared with traditional computer teaching, this method has many advantages. Multimedia electronic classrooms are very suitable for computer teaching, and the use of multimedia electronic classrooms can diversify the forms of computer teaching. Then, the source image is decomposed in a two-dimensional experience mode, and the obtained residual images are fused to complete the intelligent collection and analysis of the characteristics of teaching information; the function design is carried out under the framework of learning activities, and the functional upgrade of technical products requires the teaching and learning.

Keywords: Information Flow Collection, Smart Multimedia, Computer Classroom, Visual and Audio Information

### **1. INTRODUCTION**

Compared with the traditional classroom, the multimedia electronic classroom integrates various information dissemination methods such as sound, image, and text. have an important role [1]. However, not all media technology products (hereinafter referred to as technology products) can play an indispensable and important role in teaching, and some functional configurations are redundant. The premise of rational selection of technical products is to objectively and accurately know the true teaching function of technical products [2].

In the era of informationization and digitalization, multimedia classrooms have become an indispensable teaching tool. Generally speaking, a variety of modern electronic equipment constitutes an ordinary multimedia classroom [3]. Compared with the traditional teaching method, the multimedia teaching process needs to rely on more teaching equipment, which are of various types, including audio and video equipment, graphic processing equipment, W Therefore, in order to promote the normal use of multimedia teaching in modern teaching, it is necessary to have reliable multimedia equipment management to provide the most basic guarantee [4].

Image fusion is a branch of data fusion, which is an emerging technology that integrates multiple technologies such as sensor technology, image processing, and artificial intelligence [5]. At the same time, it is a process of processing different image data and other information corresponding to the same target obtained by a multi-source sensor (such as CCB camera, infrared detector, laser detector, radar, sound, etc.). Due to the level limitation, in complex environments, the images obtained by imaging devices usually have some unavoidable defects [6]. Image preprocessing technology is to try to overcome the influence of optical systems, detectors, photoelectric conversion devices and signal processing circuits on the image, and to provide the most complete source image for the subsequent image fusion technology [7]. It mainly includes image denoising. By fusing multi-modal medical images, processing and analyzing multiple medical images, a brand-new, high-quality medical image is presented, helping medical staff to accurately understand patients. In 2002, Obraczka et al. first defined the concept of visual Internet of Things [8]. Since then, research in this field has continued to rise and deepen. The attention to this topic is also increasing. One year after the concept was proposed, the technology of the visual Internet of Things was applied to the practical field [9].

The traditional computer teaching method is too simple. The most commonly used method is that during the class, the teacher uses the computer to demonstrate, and the students observe the teacher's operation in detail [10]. After the teacher demonstrates, assign a similar task to the students. In the past, the effective media technology Sexual research often adopts the method of comparative experiment and uses teaching effect as evidence to prove the effectiveness of teaching application of media technology [11]. However, this kind of comparative research has loopholes such as mispositioning of research questions, unclear definition of comparative items, invalid evidence of validity, flaws in experimental design, and taking accurate conclusions as final conclusions [12].

Advanced multimedia equipment is installed in the multimedia classroom; it can meet the functions of multimedia teaching, and can also be used with a blackboard or ordinary whiteboard; the main layout is still the traditional lecture layout; the teaching mode still uses the traditional indoctrination model [13]. The system can provide a good resource sharing management platform for the Weifang cultural information resource sharing platform. The author uses the client/server technology and JAVA language to implement the specific coding of the Weifang cultural information resource sharing platform system [14].

Through the work of Zhao Jianxiong et al., due to the new development of wavelet transform, many scholars have been attracted to apply it to the research of image, and the defects of wavelet have been continuously improved [15]. The mature application of wavelet algorithm in fusion was Ranchin.T. In the remote sensing image fusion experiment with Wald.L, a fusion algorithm based on DWT is proposed, which makes the result image greatly improved in the visual effect of fusion in the spatial domain [16].

### 2. RELATED WORK

Zhong Liang proposed terminal operation and maintenance in the design of terminal operation and maintenance management system based on open source framework, and implemented the system by using the current mature open source framework. Implementing the system through open source framework can reduce the system cost [17].

Wang Yanqiao conducted research on computer equipment management in the design and implementation of computer equipment management system based on J2EE, and realized computer equipment management system through J2EE platform, and the system has been running in actual environment [18].

## 3. THE PROPOSED METHODOLOGY

### 3.1 The Fusion Of Visual And Audio

### Information

The teaching system is a system of information flow among the three information processing subjects: teachers, students and media with information processing capabilities (hereinafter collectively referred to as technical products). The language analysis area will mark the syntactic structure and chunks of the sentence, which saves the user time for group division and syntactic analysis, but only needs to follow the identification result to understand the sentence. When the mouse hovers over the block area, the translation result of the block will be displayed in the left area for user reference. Therefore, the specific performance of the information processing subject in the teaching system can be judged by the teaching information it contributes, and the specific teaching characteristics need to be analyzed with the help of the teaching analysis method based on information flow.

The Laplacian Pyramid Transform is a clever decomposition method for multi-resolution images. It is used in the process of image frequency domain decomposition. It can decompose low-frequency components well, but it has no directionality. The decomposition of each layer of LP is layer-by-layer decomposition in the low-pass part, and the decomposition of the iV layer originates from the Gaussian pyramid transformation, and the spectral characteristics of night sky low light are more complex. The figure shows the spectral distribution of the night sky. The radiance of clear starlight is only one percent of the brightness of moonlight. The spectral curve of starlight rises rapidly in between. The brightness of the moonlight varies regularly with geographic location, season and moon phase. The weighted average uses the redundant information provided by the two source images to improve the signal-to-noise ratio of the fused image and enhance the reliability of the fusion result. Blur the important content (such as edges, contours, etc.) in the source image, and there will also be obvious splicing phenomenon, and the subjective visual effect is generally not ideal, so it is not suitable to use when the fusion image requires high quality.

This provides an objective handle for the judgment and measurement of the teaching effect of technical products. Specifically, we preliminarily formulated four indicators of knowledge activation, activation contribution, media diversity contribution and function utilization to characterize the teaching characteristics of technical products. The directional filter bank is directional because of its directionality. The direction details of the image can be well captured by it, so it has a good decomposition ability on the high-frequency components of the image. The first layer of the frequency domain is decomposed into 2 fork number decomposition, and the sub-band after LP decomposition of each layer is decomposed into 2' modes in the frequency domain. As shown in 3.3, the third-level frequency domain decomposition direction has 8. Toea et al. first applied the contrast pyramid algorithm to image fusion. The contrast pyramid image fusion algorithm is similar to the Laplacian pyramid fusion. It is mainly that the human visual system is more sensitive to the local gray level of the image, and the image fusion algorithm is higher in the source image. The image information of the local contrast is preserved and fused into the fused image.

# 3.2 The Smart Multimedia Computer Classroom

In computer teaching, it is also a very common teaching method to let students operate first, and then teachers practice exercises, and has achieved good teaching results, so it should be properly promoted. Before the teaching starts, it is much simpler than the smart classroom. It is generally composed of a variety of common multimedia equipment such as computers, projectors, projection screens, central control systems, and audio equipment. The classroom computers and central control systems are connected to the campus network. The multimedia intelligent management system can realize semi-intelligent management.

Therefore, in order to detect a signal of a certain waveform, it is necessary to select a very similar waveform before making judgment and analysis. With the help of multimedia electronic teachers, many teachers often use courseware to complete corresponding teaching in computer teaching, which will lead teachers to be too formalistic in the teaching process, thus ignoring the misunderstandings in the teaching content, and many teaching courseware The production does not highlight the key content involved in teaching. Smarter classroom is a whole new set of intelligent and modern teaching systems, mainly relying on emerging network information technologies such as cloud computing and the Internet of Things, and specifically using wireless projection technology. The business process is specifically divided into configuration change application, configuration change approval, and configuration change acceptance. The optimized business flow must be strictly applied for configuration changes before it can be changed.

# **3.3** The Collection and Analysis of Information Flow in Computer Classroom

The best way to verify students' learning outcomes is to often see the completion of tasks assigned by students to teachers, but through a period of practice, it is found that many tasks set by teachers in the teaching process have a certain deviation from the actual knowledge points. The sample is selected from a real collaborative learning activity in the form of micro-teaching. This collaborative learning is based on the comprehensive application activities on the morning and evening lines carried out in "Section 3 Earth Movement" in High School Geography Compulsory I by People's Education Press.

NSP transform is similar to LP transform, in image processing, the decomposition of frequency domain h can be decomposed for M times. The two-channel non-subsampling

filter bank (NSFB) can be decomposed twice in succession to realize the effect of NSP on image decomposition. The amplitude and scale of the grayscale information in the image are random and irregular in the spatial domain. Therefore, it can be regarded as a non-stationary, nonlinear and multi-scale two-dimensional signal. For signals, the most critical aspects of time-frequency analysis methods are locality and adaptability. For the human visual system, black and white images are often sensitive to the local contrast of the image grayscale. The contrast of the local gray level of the image not only reflects the sharpness of the image, but also is related to the characteristics of the target, which can indicate the richness of the salient features contained in the target. The image fusion method based on the maximum absolute value of contrast combines the above characteristics.

To sum up, the functions of smart classrooms are very powerful and can realize fully automated and intelligent management, but ordinary multimedia classrooms are still relatively popular and practical. It is about ten times higher than the construction of ordinary multimedia classrooms. At the same time, the later operation and maintenance of smart classrooms is also much more complicated than that of ordinary multimedia classrooms.

#### 4. CONCLUSIONS

In this paper, the images that have achieved accurate registration of various modalities re fused according to their principles and characteristics, and through a certain fusion algorithm. Redundancy, outline, texture details and other aspects are relatively clear. The functions of ordinary multimedia classrooms are basically sufficient, while many functions of smart classrooms cannot be used effectively for the time being, which is prone to waste of resources. Furthermore, most teachers and students are accustomed to the original multimedia teaching methods, and large-capacity multimedia classrooms can be used for large-scale teaching. This paper first proposes an image fusion algorithm based on improved Laplace pyramid transform. Pyramid transform decomposes the image at multiple scales, and the fusion process is performed at different decomposition layers, which is more similar to the visual system characteristics of the human eye, so a better fusion effect can be obtained.

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## Data Crawler Data Collection and QoS Optimization Path of Smart Course Online + Offline Evaluation Platform

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Abstract:Based on the development background of "Internet +", this paper introduces the advantages of the application of the smart teaching mode, analyzes the problems existing in the smart teaching of vocational education courses, and explores the countermeasures for the application of the smart teaching mode in vocational education. The influence of internal factors such as educational emotion and information teaching technology and external factors such as schools and social environment, web page analysis technology, database technology, Web technology and GIS technology for extraction, storage, and spatial analysis of real estate data, "smart learning platform", etc. The core link, the routing strategy is mainly implemented by the QoS routing control framework, and the physical topology discovery module in the framework, in order to analyze the internal elements of the teaching paradigm change from the perspective of technical support.

Keywords: Data Crawler, Data Collection, QoS Optimization Path, Smart Course, Offline Evaluation Platform

### **1. INTRODUCTION**

As far as vocational curriculum teaching is concerned, the application of smart teaching mode in its teaching can create a new teaching environment for vocational education, break through the limitations [1] of traditional curriculum teaching mode, and promote curriculum teaching innovation. With the rapid development of cloud computing, virtual reality (VR), holographic projection and other technologies, various modern teaching methods [2] continue to flood into the classroom, and traditional teaching is challenged. Knowledge information is freely shared through various media, making mobile learning and SNS technology [3] the mainstream of teaching development in the new century. In 1999, S.Chakrabarti first proposed the concept of "topic web crawler" at the World Wide Web Conference [4].

With the rapid development of Internet technology, the network carries a large amount of information, and how to effectively extract and utilize this information has become a huge challenge [5]. In many traditional search engines such as Google Yahoo Alta Vista and so on. Subsequently, the web crawler technology was quickly applied in various fields: Gan Guohua et al. adopted the search strategy [6] based on the improved Context Graphs method and the target page classifier method based on the support vector machine SVM for the university field to obtain useful resources [7]. The Ten-Year Development Plan for Educational Informatization (2011-2020) clearly points out the tasks and goals of improving teachers' application of information technology, building a professional technical support team [8], improving educational informatization leadership, and optimizing the information technology talent training system [9]. The Outline of the National Medium- and long-term educational reform and development plan [10].

At present, the scale of the Internet is constantly expanding, and various applications are emerging one after another. Especially in recent years [11], with the continuous maturity and development of mobile Internet technology, there has been an "explosive" increase in network users [12]. According to the 37th release by China Internet Information Center (CNNIC), the research hotspots for data center network traffic mainly focus on network structure and routing strategy. The root node of the traditional [13] hierarchical tree network structure often becomes the bottleneck of network performance, and the number of servers is limited by the hierarchical structure [14]. The new network structure can solve this problem well. Most data center routing strategies focus on improving or redesigning routing algorithms. The total number of websites with ".CN" domain names on the Chinese Internet has exceeded 20.85 million, a year-on-year increase of 3% [15]. Faced with such a huge number of web pages, it is unrealistic to rely on the single-machine version of the web crawler to obtain enough information, even with high-performance, high-bandwidth server support. Teachers and students are not independent [16], and they are not independent. Two-way interaction can be realized. Teachers can formulate corresponding questions and answers, and students can answer. Zhou Xiaoli [17] realized a public opinion monitoring system based on general web crawler and Lucene index database. Hao Hu [18] and others used the crawler based on the Heritrix architecture to collect netizens' attitudes towards the Huangyan Island incident. Students can leave a message or ask questions online to teachers in a timely manner if they do not understand [19]. Teachers can respond in real time, and the interaction efficiency is very high. Applying the smart teaching model to vocational education teaching has many advantages [20]. When conducting network retrieval, what we hope is the largest possible network coverage, but due to the different resource allocation between the limited search engine server resources and the unlimited network data resources [21], the contradiction between them is further deepened. Information technology has a revolutionary impact on the development of education" is a major historical proposition. In the new era of comprehensive integration of technology and education [22], the construction of an innovative country urgently needs matching knowledge systems and talent training methods. Many countries in the world and the region has taken smart education as a major strategy for its future education development [23].

In the face of massive Internet data, many individuals and companies hope to obtain valuable data information or the rules contained in it. However [24], to achieve this goal, collecting sufficiently accurate and effective data is the most basic part. The method of combining the ECMP algorithm with weights and the establishment of multi-constraint QoS network model is proposed to realize the routing strategy of the routing engine module.

### 2. THE PROPOSED METHODOLOGY 2.1 The Smart Course Online + Offline Evaluation Platform

At present, in addition to smart mobile terminal devices, such as smart phones, tablets, and computers, the smart teaching modes commonly used in vocational education and teaching also include smart teaching platform applications, smart teaching models, and integrated applications of courses. Smart teaching is a ubiquitous, perceptual, integrated, and intelligent new educational ecosystem built on the basis of newgeneration information technologies such as mobile Internet, Internet of Things, and big data. It integrates digital technologies such as augmented reality and cloud computing, and concentrates the core of virtual reality and visualization technologies. The first is that the amount of data is too low; the second is inefficiency; the accuracy is also affected by the appraiser's personal subjective factors.

Using GIS theme crawler technology to automatically collect Web real estate transaction data and Web real estate geospatial data, and use the collected data to design an online real estate appraisal system to realize automatic real estate evaluation. It contains full text search and web crawler. The part of the web crawler adopts a plug-in-based approach to handle various types of sites, and it can also combine with doop to build a large-scale distributed crawler system. At the same time, due to the scale of modern data centers usually reaching tens of thousands or even millions of servers (as of 2006, Google has more than 450,000 servers in its more than 30 data centers. Web crawlers are often used to crawl the Internet. Of all the resources on the Internet, the most common application is the search engine. The number of web pages crawled by this type of web crawler is generally in units of hundreds of millions, and it needs to repeatedly crawl some frequently updated web pages. Crawl speed and storage capacity are extremely demanding.

With the application of smart teaching mode, efficient resource sharing can be achieved when connected to the network. The application of the smart teaching model can effectively break through the limitations of time and space, allowing teachers and students to achieve remote interaction and shorten the distance between teachers and students, even in special circumstances

### 2.2 The Data Crawler Data Collection

Property geographic information data includes property location information and map basemaps. Location information collection is collected by using the huge data source of the Web, which is more efficient than collecting in the wild. In this paper, the dynamic web page information acquisition technology is used to simulate the user click query process, and the coordinate data of the corresponding point is returned. The crawler system can automatically download relevant web pages, and formulate the targets to be crawled according to the corresponding information and the instructions issued by people. It can selectively access web pages and related links on the Internet, and then decrypt the required information data. This web crawler adopts a neutralized topology, in which the task distribution node is the master node and the other nodes that accept tasks are the work nodes.

Through the above analysis, it is concluded that the Web real estate data source has the following characteristics: First, there are a large number of noises such as navigation bars, advertising links, copyright notices, etc. in the webpage; Second, the data carrier is divided into static pages and dynamic pages, which need to be combined with different page extraction technologies. All web pages crawled by web crawlers will be stored, filtered, analyzed, classified and indexed by the system. The biggest difference between the topic web crawler and the general web crawler is that the topic web crawler analyzes the content of the target web page during the crawling process and judges its relevance to a specific topic.

### 2.3 The Qos Optimization Path of Smart Course Online + Offline Evaluation Platform

Integrated Services (IntServ, Integrated Service), differentiated services (DiffServ, Differential Service) and traffic engineering (TE, Traffic Engineering). The IntServ model introduces the Resource Reservation Protocol (RSVP), which enables network applications to achieve end-to-end QoS guarantee, but its scalability is poor. On the basis of the original directional crawling, the whole network crawling is added, and then the Topic recognition technology, web page slicing technology and web page weight analysis technology, so as to achieve the function of automatically tracking links and extracting text by crawlers. Compared with traditional classroom teaching, online learning has the characteristics of autonomy and collaboration. Through certain restraint and supervision mechanisms, it can not only collect information such as students' learning behaviors, but also provide data support for subsequent evaluation mechanisms.

Then add the support of the robots protocol to the crawler to make our crawling legal. Under the background of "Internet +", vocational education teachers need a certain period of time to master information technology, and they must maintain a good attitude and gradually master the skills and knowledge. During the learning period, it is inefficient for teachers to explore behind closed doors alone, and they may also take detours. In order to improve the efficiency of smart education in vocational colleges, it is necessary to fundamentally increase the importance attached to smart education by the majority of vocational teachers, to actively carry out smart education teaching guidance work conferences, and to publicize the importance of smart education. The central engine, as the core brain of Scrapy, It is responsible for managing all data flows in the system. The input and output of each module need to go through the central engine, so this component occupies a very important position in the Scrapy framework, once the central engine fails.

In the formula, IB is the popularity of the link, which is determined by the quantity and quality of backlinks; IL is the importance of the link, which is a function of the URL string; X and Y are the weight coefficients of IB and IL. The principle of the template processor is that the template is composed of some modules, each of which handles different tasks.

### **3. CONCLUSIONS**

Vocational educators should adhere to the principles of "going fast and thinking carefully", "things change people's stability", and "secret education in Tibetan education", with the development of learners' subjectivity as the core, generative learning activities as the main body, and ubiquitous learning resources as the basis. The automatic analysis and processing of the seed list has been realized, and the attempt of intelligent collection of the website has been carried out, and certain achievements have been obtained. At the same time, the traditional crawler does not support the collection.

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