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A Method of Car Driver's Phone Call Recognition Based on Human Joint Points

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Abstract: The distracted driving state of the car driver has caused serious harm to traffic safety and the personal safety of the driver. The most frequent and common distraction is the distracted driving behavior of the driver on the phone. In order to accurately identify the car driver's phone call is distracting driving behavior. A driver's phone call behavior recognition method based on the joint point information of the driver's body was proposed in this manuscript. After using the OpenPose network structure to extract the joint points of the human body, the driver's angle of the driver's upper and lower arms and the normalized distance between the joint points are calculated and compared to relatively accurate identification of car drivers' phone calls and distracted driving behaviors. The experimental results show that the method proposed in this paper has an accuracy rate of 97.23% for the distracted driving state of the car driver's phone call.

Keywords: computer vision; deep learning; OpenPose; phone call recognition; biomechanical distraction

1. Introduction

With the rapid development of the social economy and the improvement of people's living standards, the number of motor vehicles in our country has increased year by year, and the traffic demand has increased rapidly. At the same time, traffic has brought traffic accidents and traffic casualties to people. According to the "China Statistical Yearbook", in 2020, a total of 244,674 traffic accidents occurred nationwide, resulting in 61,703 deaths, 250,723 injuries, and direct property losses of 1,313.61 million yuan.

Behind such a large number of traffic accidents, the most common reason is the driver's distracted driving. A driver's use of a mobile phone while driving a car is 4 times more likely to occur in a car accident. According to statistics, in 2019, there were a total of 33,244 traffic accidents in the United States, of which 2,895 were caused by distracted driving, and 424,000 people were injured. Therefore, how effectively and quickly identify the car driver using a mobile phone to make a phone call is of great significance for effectively and quickly identifying distracted driving of the car driver.

At present, the methods for the detection of car drivers' calling behavior are mainly divided into two categories: one is the detection method based on the mobile phone signal, and the other is the detection method based on machine vision. Ascariz^[1] proposed a method to detect driver use of mobile phones through two antennae located inside the vehicle. And Jie Yang^[2] also through the signal to do that. Yusuf^[3] develops an algorithm to detect driver use of mobile phones. Vamsi^[4] detected driver use of mobile phones through distinguishing the position of the camera of driver's phone. Keshav^[5] presented a vision based method to detect driver use of mobile phones. XuBeilei^[6] proposed a machine-learning-based method for detecting driver cell phone usage. Rafael^[7] proposed a vision system to recognize the use of phone. Hoang Ngan^[8] presented an advanced deep learning based

approach to automatically determine whether a driver is using a cell-phone while ChaoYan^[9] presented a novel system which learn and predict pre-defined drivers postures. Shantanu V^[10] detected driver use of mobile phones through ECG signal processing aspect. Bensus^[11] proposed a novel automated technique towards driver's phone usage violation detection using deep learning algorithms. Youssra^[12] proposed an integrated system to automatically detect, track, and report distracted drivers. Xiong^[13] proposed a driver's cell phone usage detection algorithm based on deep learning. Kubilay^[14] detected mobile phone usage based on YOLOv5 network. Liu^[15] proposed a detection algorithm based on extreme gradient boosting (XGBoost) to recognize the use of phone. Benjamin^[16] proposes a method to extend such systems by driver posture classification to detect driver cell phone usage.

The detection method based on the mobile phone signal is to determine whether the driver is on the phone by detecting the mobile phone signal. This method has a high false positive rate. The use of mobile phones by people other than the driver in the driving vehicle cannot be distinguished from the use of mobile phones by the driver, and the mobile phone of the car driver is being used but does not affect the normal driving of the car driver. Circumstances have had too much influence on accurately identifying the use of cell phones by car drivers. The second type of method, the detection method based on machine vision, is to monitor the behavior of answering the phone in real-time through visual images. The method is based on the algorithm of a convolutional neural network to detect and recognize the behavior of car drivers on the phone in the face candidate area. This method also has the disadvantage of low robustness.

Based on the shortcomings of the above two methods, this paper proposes a method of calling behavior detection based on the joint points of the car driver's body. In this paper, the body joint points of the car driver are extracted first, and based on the joint points, the car driver's phone call behavior

is detected and recognized by the unique behavioral characteristics of the car driver's phone call behavior.

2.Method

2.1Network Architecture

OpenPose^[17] is based on a convolutional neural network, improves it, and then realizes the network model of real-time multi-person human joint point detection in a supervised learning environment. OpenPose is widely used. The main architecture of its original network is shown in Figure 1. The input of the network model is an image, and the feature map is obtained through the feature extraction of the OpenPose backbone network VGG19^[18]. As the input of the next stage, the network model can be divided into two branches. The upper branch S of the network is used to predict the driver of the car. Part Confidence Map (PCM) of the joint points of the human body, each Confidence Map is a grayscale image, and the position coordinate of the maximum value is the highest probability corresponding to a joint point of the human body; the lower branch L of the network Part Affinity Field (PAF) is used to predict the joint points of the car driver. This branch is a 2D vector field for predicting Part Affinity, which represents the degree of association between two joint points, that is, the car driver. Position information and orientation information between two joint points.

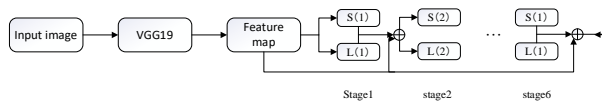


Figure 1. Main Network structure of OpenPose

The upper and lower branch structure of the OpenPose network structure is shown in Figure 2. The network uses a multi-stage network to extract the key information of the driver's human body joints. As shown in the figure, the first stage uses a 3x3 convolution kernel, but after the second stage, a 7x7 convolution kernel that can obtain a large receptive field is adopted, which reduces the computation while retaining the receptive field. The amount of operation calculation has been reduced from 97 to 51. And at the end of each stage, the predicted values from the sub-networks of the upper and lower branches and the initial feature map are connected as the input of the next stage, which can better integrate the deep feature information.

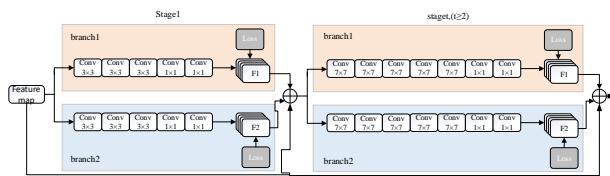


Figure 2. Internal structure of the prediction network

The human body joint point acquisition part of this paper directly uses the model trained by OpenPose. The joint point data model adopts the COCO data set format. As shown in Figure 3, the human body joint points are: 0 nose, 1 neck, 2 left-shoulder, 3 Left-elbow, 4 Left-wrist, 5 Right-shoulder, 6 Right-elbow, 7 Right-wrist, 8 Left-hip, 9 Left-knee, 10 Left-ankle, 11 Right-hip, 12 Right-knee, 13 Right-ankle, 14 Left-eye, 15 Right-eye, 16 left-ear, 17 right-ear.

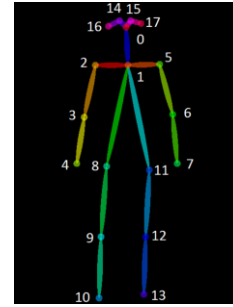


Figure 3. Human joint points in the COCO dataset

2.2 Proposed Model

In the previous section, the position information of the car driver's body nodes is extracted and saved through the OpenPose network. A method for identifying the car driver's phone calls based on body joints was proposed. Since most people are right-handed, this article only considers right-handed car drivers. A general conclusion can be drawn from observation: when a car driver is holding a mobile phone to make a call, he needs to hold the mobile phone with his right hand close to the right ear, so the angle between the right arm will become smaller, and the distance between the joint point of the right wrist and the joint point of the right shoulder will be reduced. will become smaller, and this article uses these two data to determine whether the driver is using his right hand to hold a mobile phone to make a call. The position coordinates of each body node of the driver are shown in formula (1):

$$c_i = [c_x^i, c_y^i], (i \in (0,17)) \quad (1)$$

The formula for calculating the relative distance between each two body nodes is shown in formula (3):

$$d_{ij} = \frac{\sqrt{(c_x^j - c_x^i)^2 + (c_y^j - c_y^i)^2}}{h} \quad (2)$$

Among them, d_{ij} represents the normalized relative distance between the joint point i and the joint point j , and h represents the relative distance between the left ear and the left eye.

The formula for calculating the included angle α_3 of the right elbow is shown in formula (3):

$$\alpha_3 = \arccos \frac{(c_x^2 - c_x^3) * (c_x^4 - c_x^3) + (c_y^2 - c_y^3) * (c_y^4 - c_y^3)}{\sqrt{(c_x^2 - c_x^3)^2 + (c_y^2 - c_y^3)^2} * \sqrt{(c_x^4 - c_x^3)^2 + (c_y^4 - c_y^3)^2}} \quad (3)$$

3.Experiment

To verify the effectiveness of the method in this paper, experiments were carried out on a computer with Intel(R) Core(TM) i7-10870H CPU, 16GiB RAM, and CUDA11.1. The "distracted-driver-detection" dataset of the KAGGLE State Farm Distracted Driving Challenge is part of the right-

handed mobile phone calling dataset, which uses part of the right-handed mobile phone calling dataset in the KAGGLE State Farm Distracted Driving Challenge dataset to train the model. Parts are shown in Figure 4. The test set consists of 500 images randomly selected from the videos captured by the driver in the real vehicle experiments.



Figure 4. Part of the driver's body nodes in the training dataset

Model detection performance is evaluated based on Precision (P), Recall (R), mean Average Precision (mAP), and FPS. FPS is used to measure the detection efficiency, which represents the number of images that the model can process per second. The mAP value is defined as the mean value of the average precision (Average Precision, AP) of each class, and the AP value corresponds to the area under a certain type of P-R curve. The calculation formulas are shown as follows.

$$Precision = \frac{TP}{TP + FP} \quad (4)$$

$$Recall = \frac{TP}{TP + FN} \quad (5)$$

$$AP = \int_0^1 PdR \quad (6)$$

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.



Figure 5. Part of the results

In the table below, the sample numbers and respective detection accuracies of normal driving state and phone call behavior are listed.

Table 1. Model recognition accuracy table

Sample type	Sample number	AP/%
Calling	9800	97.23
Normal driving	6900	97.89

4. Conclusion

In this paper, a body node-based identification method for a driver's phone-calling driving behavior is proposed. At this stage, most of the recognition methods for the driver's calling and driving behavior use the image recognition method, and the accuracy gap between different data sets is too large. In this paper, the OpenPose network is used to extract the body joint points of the car driver. Based on the body joint points, the angle between the driver's forearm and the forearm and the relative distance between the joint points are calculated, and the distracted driving behavior of the driver's phone call is finally determined. After verification, the method proposed in this paper has an accuracy rate of 97.23% for the car driver's answering the phone.

5. Acknowledgments

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Calculation of the Single-Walled Carbon Nanotubes' Elastic Modulus by Using the Asymptotic Homogenization Method

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Abstract: This article uses the asymptotic homogenization method to investigate the mechanical characteristics of single-walled carbon nanotubes. The asymptotic homogenization method has been used to derive the equations for the homogenized elastic properties matrix. Then, MATLAB is used to model nanotubes and implement the finite element simulation. Two types of chiralities, including armchair and zigzag, are taken into account in this regard. Young's modulus and shear modulus have been estimated for both armchair and zigzag nanotubes in accordance with the relationships between the derived coefficients and molecular mechanical characteristics. Investigations have been done into how diameter and orientation affect the mechanical characteristics of carbon nanotubes. The research's findings are corroborated and generally consistent with those found in other articles.

Keywords: Carbon nanotubes, Asymptotic homogenization, Periodic systems, Homogenized elastic property matrix, Young's modulus, Shear modulus.

1. INTRODUCTION

Today, with the progress of science, there are need to produce smaller parts in various industries such as the military, aviation, electronics, etc. Assembling these requires in order to the production of advanced materials with higher efficiency, leading to the increasing progress of research in the field of nanotechnology. Carbon nanotubes have a special importance in the field of nanotechnology due to their unique properties that they have, which led various scientists and researchers to try to accurately predict their properties. Kroto et al [1] investigated the mechanism of the carbon molecular chain and introduced fluorine by laser irradiation on the surface of graphite. During this approach, a significant group of 60 carbon atoms with 5 and 6-sided arrangements are formed in the form of a closed shelf that is arranged in the form of a soccer ball. A few years after the discovery of fullerenes, carbon nanotubes were accidentally discovered in 1991 by Sumio Iijima [2] while studying carbon electrodes during electronic discharge.

Carbon nanotubes have remarkable mechanical, thermal, and electrical properties due to their symmetrical structure. They are mechanically classified in the hard materials classes. In equal weight with the hard steel, they are expected to show resistance more than about one hundred times. In terms of thermal properties, nanotubes are stable up to 2800 degrees Celsius in a vacuum and up to 750 degrees Celsius in air. Moreover, they have two times higher thermal conductivity than pure diamonds. Also, in comparison with copper, carbon nanotubes have 100 times more electrical load-carrying capacity [3]. In addition, carbon nanotubes can behave as conductive or

semi-conductive, which is due to the arrangement of carbon atoms [4]. Due to the unique mechanical properties of carbon nanotubes, extensive studies and research have been conducted in this field, and these studies can be divided into two experimental and theoretical parts.

Krishman et al [5] experimentally tested 27 single-walled nanotubes in the diameter range of 1-1.5 nm using thermal vibration analysis and obtained Young's modulus of 0.9 to 1.7 TPa. By using an atomic force microscope, Tumbler et al. [6] obtained Young's modulus of about 1.2 TPa. Salvetat et al. [7] also found a value of 0.8 to 1.2 TPa for Young's modulus of carbon nanotubes utilizing an atomic force microscope. During theoretical research, Hernandez et al. [8] using the non-orthogonal tight junction formulation and considering the wall thickness as 0.34 nm, obtained Young's modulus of approximately 1.22 to 1.24 TPa for single-walled nanotubes.

Arroy et al. [9] approximated Young's modulus 0.686 TPa by using large atomic deformations based on the Tersoff-Brenner potential function. Li and Chou [10] modeled the deformation of carbon nanotubes using structural mechanics approximation and stiffness matrix method and obtained Young's modulus equal to 0.89 -1.3 TPa and shear modulus equal to 0.27-0.49 TPa. Also, using the aforementioned method, they illustrated that the mechanical behavior of armchair and zigzag nanotubes is dependent on the diameter and orientation of the nanotube. Jin and Yuan [11] used the molecular dynamics method to investigate the mechanical properties of carbon nanotubes. By acquisition of numerical methods and using two

approximations of energy and force, they obtained the mechanical properties of nanotubes with a diameter range of 0.407 to 1.357 nm. By using the energy method, Young's modulus and the shear modulus were equal to 1.236 TPa and 0.49 TPa respectively. Simultaneously, by using the force method, Young's modulus was obtained equal to 1.35 TPa, and the shear modulus was calculated 0.45 TPa. Tserpes and Papanikos [12] by hiring the structural mechanic's method and using 3D finite elements, modeled armchair, zigzag, and chiral nanotubes. They investigated the effect of three factors nanotubes consist of wall thickness, nanotube diameter, and orientation on the mechanical properties of nanotubes. Their investigations demonstrated that the mechanical properties of nanotubes are highly sensitive to changes in thickness, diameter, and orientation. For the wall thickness of 0.34 nm, the gained results from their method predicted Young's modulus of about 0.952 to 1.066 TPa and the shear modulus of approximately 0.242 to 0.504 TPa.

Xiao et al. [13] investigated the mechanical properties of nanotubes using the analytical molecular structure mechanics approach and using the modified Morse potential function. Their model was able to predict Poisson's ratio, Young's modulus, and the stress-strain relationship of nanotubes under tensile and shear loading. They showed that Young's modulus of the nanotube is sensitive to the change in diameter and orientation as well. They achieved Young's modulus between 1 to 1.2 TPa, and shear modulus between 0.4 to 0.46 TPa. They also gained the Poisson's ratio between 0.2 and 0.35. Kalamkarov et al. [14], with the homogenization method, obtained Young's modulus and shear modulus equal to 1.717 TPa and 0.322 TPa respectively. Chandraseker and Mukherjee [15] calculated the elastic modulus and stress-strain curve of nanotubes using the *ab initio* approximation and the atomic continuum approximation. They hired the experimental interatomic potential, Christoph-Brenner in the atomic continuum approximation. The obtained results stated that the mechanical properties of the nanotube do not depend on the diameter and orientation, Young's modulus is between 0.47-0.69 TPa and the shear modulus is between 0.19-0.24 TPa. Rafiee et al. [16] predicted Young's modulus of carbon nanotubes using the complete nonlinear finite element model. They benefited the spring element to approximate molecular interactions in the atomic structure of nanotubes. Considering the nonlinear effects, they found that Young's modulus of the nanotube is independent of the orientation and diameter of the nanotube, and they obtained Young's modulus of about 1.325 TPa for the single-walled nanotube.

2. THE MOLECULAR STRUCTURE OF SWCNTS

A hexagonal lattice of graphene is rolled up into a round-hollow tube to make single-walled carbon nanotubes,

Figure (1). The geometrical structure of the arrangement of atoms in carbon nanotubes is defined as chirality which is characterized by the chiral vector Ch and the chiral angle θ . The orientation vector Ch can be defined as a linear combination of unit basis vectors in the hexagonal lattice as follows:

$$Ch = na_1 + ma_2 \quad (1)$$

In Eq. (1), a chiral angle denotes the direction of the chiral vector θ :

$$\theta = \cos^{-1} \frac{(2n + m)}{2\sqrt{(n^2 + m^2 + nm)}} \quad (2)$$

The chiral angles are 30° and 0° , when $n = m$ and $n = 0$, are respectively substituted for armchair and zigzag nanotubes. However, the radius of nanotubes at room temperature can be calculated as follows:

$$R = \frac{\text{length of } Ch}{2\pi} = \frac{a\sqrt{(n^2 + m^2 + nm)}}{2\pi} \quad (3)$$

The equilibrium bond length of the atoms in the graphite sheets is denoted by the expression $a = a_0\sqrt{3}$ [5]

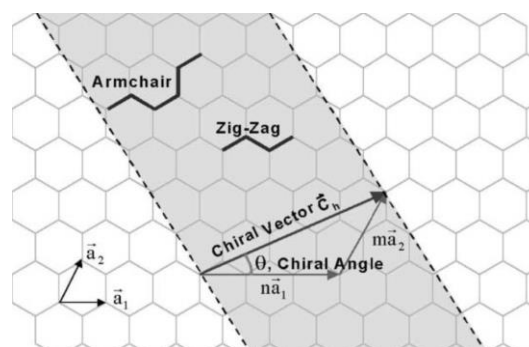


Figure 1. Armchair and zigzag nanotubes developed from graphene [19]

Chirality has a significant effect on the properties of nanotubes, including electrical conductivity, mechanical strength, and optical properties. Unlike graphite, which is considered a semiconductor, nanotubes can behave as a metal or a semi-metal according to the orientation vector [20].

3. ASYMPTOTIC HOMOGENIZATION METHOD

With recent technological advancements, the utilization of composite materials in the industry has grown significantly. Composite materials are materials with distinct constituents whose qualities differ from the constituents themselves. Solids and voids are included in the classification of cellular bodies as a simple type of composite. It is possible to think of a composite with regular heterogeneity as having an alternating or periodic structure. It should be highlighted that this heterogeneity's

size should be extremely small in relation to the object's dimensions. These composites might be referred to as periodic microstructures based on modeling assumptions. The study of boundary value problems, including a significant amount of inhomogeneity, is highly challenging even with the aid of contemporary, high-speed computers. The natural solution to this issue is to substitute the composite with an equivalent model, a process known as homogenization [21]. The mechanical properties of the corresponding homogenized model were calculated using the theory of homogenization, which was created in 1970 [22–24]. In order to acquire the properties of the material on this scale, the first step in the homogenization theory is to mathematically assume that the material structure is periodic and solve the issues on the unit cell. The boundary value problems for the entire material come next in the second step.

4. PERIODICITY AND ASYMPTOTIC EXPANSION

An inhomogeneous material has a regular periodic structure if the functions defining the physical quantities or geometry of the material obey the following property.

$$F(x + NY) = F(x) \quad (4)$$

$\mathbf{x} = [x_1, x_2, x_3]^T$ is the position vector of points and N is a 3x3 matrix as follows:

$$N = \begin{bmatrix} n_1 & 0 & 0 \\ 0 & n_2 & 0 \\ 0 & 0 & n_3 \end{bmatrix} \quad (5)$$

In Eq. (4), $\mathbf{Y} = (Y_1, Y_2, Y_3)$ is a constant vector that determines the periodicity of the structure, and F can be a scalar, a vector, or even a tensor function of the location vector \mathbf{X} . In a composite material with periodic repetition of \mathbf{Y} unit cells, the mechanical behavior is described by the following relation:

$$\sigma_{ij} = C_{ijkl} e_{kl} \quad (6)$$

The C_{ijkl} tensor is a periodic function of the spatial coordinate \mathbf{X} . Therefore, the following equation is obtained:

$$C_{ijkl}(x + NY) = C_{ijkl}(x) \quad (7)$$

C_{ijkl} has a periodicity of \mathbf{Y} . In the theory of homogenization, it is assumed that period \mathbf{Y} is small compared to the dimensions of the problem. In general, we will encounter two behaviors in a composite with a periodic structure. The first one is at the macroscopic level or the global level of \mathbf{X} , which shows slow changes, and

the other is at the microscopic level or the local level of y , which describes fast fluctuations. The ratio of the actual length of a single vector in microscopic coordinates to the actual length of a vector in macroscopic coordinates is defined by the parameter ε as follows:

$$Y = \left(\frac{x}{\varepsilon}\right) \quad (8)$$

The functions that determine the behavior of composites can be expressed as follows:

$$Q^\varepsilon(x) = Q^0(x, y) + \varepsilon Q^1(x, y) + \varepsilon^2 Q^2(x, y) + \dots \quad (9)$$

This method is called *Double asymptotic expansion*. This extension means that the approximate function of \mathbf{X} and \mathbf{Y} converges to the original function at infinity [21].

5. ELASTICITY IN CELLULAR BODIES

This section explains the homogenization approach for cellular materials in the weak form state and extracts the essential equations for a numerical solution using finite elements. Guedes and Kikuchi were the first to employ this technique [25].

When volume force f and traction vector t are applied to a porous and pore-filled material with alternating microstructures, the elastic problem is taken into account.

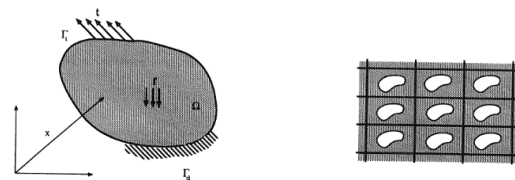


Figure 2. The problem of elasticity in a cellular body [26].

Ω is the range of R^3 space with smooth boundaries Γ including Γ_d (displacement boundaries) and Γ_t (traction boundaries).

The main cell of the \mathbf{Y} cell body is shown in figure (3). The domain \mathbf{Y} is a rectangle of the space R^3 , which is defined as follows and has a hole v .

$$Y = [0, Y_1] * [0, Y_2] * [0, Y_3] \quad (10)$$

The boundaries of v are defined by s as follows:

$$(\partial v = s) \quad (11)$$

It is assumed that it is smooth with sufficient size. In a general case, the traction P can also exist next to the hole. The solid part of the cell is defined by \mathbb{Y} as follows:

$$\Omega_\varepsilon = \left\{ x \in \Omega \mid \left(y = \frac{x}{\varepsilon} \right) \in \mathbb{Y} \right\} \quad (12)$$

The following relation is also defined:

$$S_\varepsilon = \bigcup_{i=1}^{Allcell} S_i \quad (13)$$

It is assumed that no hole V_i crosses the boundary Γ .

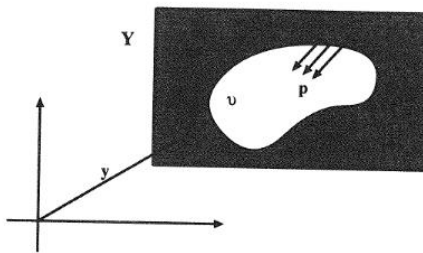


Figure 3. Cell body unit [26]

The followings are stress-strain and strain-displacement equations:

$$\begin{aligned} \sigma_{ij}^\varepsilon &= E_{ijkl} e_{kl}^\varepsilon \\ e_{kl}^\varepsilon &= \left(\frac{1}{2} \right) \left(\frac{\partial u_k^\varepsilon}{\partial x_l} + \frac{\partial u_l^\varepsilon}{\partial x_k} \right) \end{aligned} \quad (14)$$

with condition $u^\varepsilon \in V^\varepsilon$ the virtual displacement equation can also be defined as follows:

$$\begin{aligned} \int_{\Omega} E_{ijkl} \frac{\partial u_k^\varepsilon}{\partial x_l} \frac{\partial v_i}{\partial x_j} d\Omega &= \int_{\Omega^c} F_i^\varepsilon v_i d\Omega + \\ \int_{\Gamma_t} t_i v_i d\Gamma + \int_{S^c} P_i^\varepsilon v_i dS &\quad \forall v \in V^\varepsilon \end{aligned} \quad (15)$$

by using the asymptotic expansion, Eq. (15) is expressed as follows:

$$\begin{aligned} \int_{\Omega} E_{ijkl} \left\{ \frac{1}{\varepsilon^2} \frac{\partial u_k^0}{\partial y_l} \frac{\partial v_i}{\partial y_j} + \frac{1}{\varepsilon} \left[\left(\frac{\partial u_k^0}{\partial x_l} + \frac{\partial u_k^1}{\partial y_l} \right) \frac{\partial v_i}{\partial y_j} + \frac{\partial u_k^0}{\partial y_l} \frac{\partial v_i}{\partial x_j} \right] + \right. \\ \left. \left[\left(\frac{\partial u_k^0}{\partial x_l} + \frac{\partial u_k^1}{\partial y_l} \right) \frac{\partial v_i}{\partial x_j} + \left(\frac{\partial u_k^1}{\partial x_l} + \frac{\partial u_k^2}{\partial y_l} \right) \frac{\partial v_i}{\partial y_j} \right] + \varepsilon(\dots) \right\} d\Omega = \\ \int_{\Omega^c} F_i^\varepsilon v_i d\Omega + \int_{\Gamma_t} t_i v_i d\Gamma + \int_{S^c} P_i^\varepsilon v_i dS \quad \forall v \in V_{\Omega^*}^\varepsilon \end{aligned} \quad (16)$$

Herein, by setting equal powers of ε and simplifying equations, the following equations are finally obtained. For further study, refer to reference [21].

$$\begin{aligned} \int_{\Omega} \left[\frac{1}{|Y|} \int_{\mathbb{Y}} \left(E_{ijkl} - E_{ijpq} \frac{\partial \chi_p^{kl}}{\partial y_q} \right) dY \right] \frac{\partial u_k^0(x)}{\partial x_l} \frac{\partial v_i(x)}{\partial x_j} d\Omega = \\ \int_{\Omega} \left(\frac{1}{|Y|} \int_{\mathbb{Y}} E_{ijkl} \frac{\partial \Psi_k}{\partial y_l} dY \right) \frac{\partial v_i(x)}{\partial x_j} d\Omega + \\ \int_{\Omega} \left(\frac{1}{|Y|} \int_{\mathbb{Y}} f_i dY \right) v_i(x) d\Omega + \int_{\Gamma_t} t_i v_i(x) d\Gamma \quad \forall v \in V_{\mathbb{Y}} \end{aligned} \quad (17)$$

to simplify the above equations, the following notations are considered:

$$\begin{aligned} E_{ijkl}^H(x) &= \frac{1}{|Y|} \int_{\mathbb{Y}} \left(E_{ijkl} - E_{ijpq} \frac{\partial \chi_p^{kl}}{\partial y_q} \right) dY \\ \tau_{ij}(x) &= \int_{\mathbb{Y}} E_{ijkl} \frac{\partial \Psi_k}{\partial y_l} dY \\ b_i(x) &= \frac{1}{|Y|} \int_{\mathbb{Y}} f_i dY \end{aligned} \quad (18)$$

Therefore, equation (16) can be written as follows:

$$\begin{aligned} \int_{\Omega} E_{ijkl}^H \frac{\partial u_k^0(x)}{\partial x_l} \frac{\partial v_i(x)}{\partial x_j} d\Omega = \int_{\Omega} \tau_{ij}(x) \frac{\partial v_i(x)}{\partial x_j} d\Omega + \\ \int_{\Omega} b_i(x) v_i(x) d\Omega + \int_{\Gamma_t} t_i v_i(x) d\Gamma \quad \forall v \in V_{\mathbb{Y}} \end{aligned} \quad (19)$$

This Eq. (19) is very similar to virtual displacement Eq. (15) and shows the macroscopic balance. In the above equation, E_{ijkl}^H is the homogeneous elastic constant, τ_{ij} is the average stress remaining inside the cell, which is related to the traction P next to the hole, and b_i is the average volumetric force [21].

6. SOLVING EQUATIONS BY FINITE ELEMENT NUMERICAL METHOD

For the case where the thickness of the structure is small, (such as pipes and shells $D \gg t$), the assumption of plane stress can be used for analysis, in this case, the stress and strain relationships become as follows:

$$\begin{Bmatrix} \sigma_1 \\ \sigma_2 \\ \tau_{12} \end{Bmatrix} = \begin{bmatrix} D_{11} & D_{12} & 0 \\ D_{12} & D_{22} & 0 \\ 0 & 0 & D_{66} \end{bmatrix} \begin{Bmatrix} \epsilon_1 \\ \epsilon_2 \\ \gamma_{12} \end{Bmatrix} \quad (20)$$

By using equation (19) and applying the simplifications and using the finite element method, the homogenized

elements of the matrix of elastic properties can finally be found. Interested readers are referred to reference [21].

$$\begin{aligned}
 D_{11}^H &= \frac{1}{|Y|} \int_Y (D_{11} - d_1^T \epsilon(\psi)) dY \\
 D_{12}^H &= \frac{1}{|Y|} \int_Y (D_{12} - d_1^T \epsilon(\psi)) dY \\
 D_{22}^H &= \frac{1}{|Y|} \int_Y (D_{22} - d_2^T \epsilon(\psi)) dY \\
 D_{66}^H &= \frac{1}{|Y|} \int_Y (D_{66} - d_3^T \epsilon(\psi)) dY
 \end{aligned} \quad (21)$$

In the above relations ψ and $\epsilon(\psi)$ are the displacement field and the strain field respectively. d_1, d_2, d_3 are the columns of the elasticity matrix D and are defined as follows:

$$d_1 = \begin{Bmatrix} D_{11} \\ D_{12} \\ 0 \end{Bmatrix} \quad d_2 = \begin{Bmatrix} D_{12} \\ D_{22} \\ 0 \end{Bmatrix} \quad d_3 = \begin{Bmatrix} 0 \\ 0 \\ D_{66} \end{Bmatrix} \quad (22)$$

Therefore, according to equation (21), homogenized elastic properties matrix elements can be obtained. For further reading, refer to reference [21].

7. FINITE ELEMENT SIMULATION

Here, Eq. (21) was solved using the finite element method, and the homogeneous modulus was obtained. Modeling of the single wall Carbon Nanotube is very sophisticated, therefore, in order to analyze and simulation of SWCNT, the model should be simplified. In this research, one of the impressed models which are presented is implemented [29]. The nanotube geometry was modeled by MATLAB software, which also was used by Ferdosi et al [30] to model single-walled carbon nanotubes to calculate the buckling and post-buckling behavior. In the homogeneous method, that are been used in this article, it is necessary to consider the cross-section of the carbon-carbon bond as a rectangle, Figure (6).

A space-frame model is here employed for the zigzag and armchair nanotubes with different chiralities and aspect ratios. In this approach, the linkage between carbon atoms is modeled as a three-dimensional elastic beam. By establishing a linkage between structural mechanics and molecular mechanics, the sectional property parameters of these beam members are obtained. The general potential energy, when the electrostatic interactions are ignored, is expressed as follows:

$$E = E_\rho + E_\theta + E_\omega + E_\tau + E_{VDW} + E_{EL} \quad (23)$$

In the equation above, $E_\rho, E_\theta, E_\omega,$ and E_τ are respectively the potentials related to bond stretching, angle changes, inversion, and twisting as shown in Figure (4). Also, E_{VDW} and E_{EL} are Van der Waals forces and electrostatic reactions, which both are caused by non-bonded reactions.

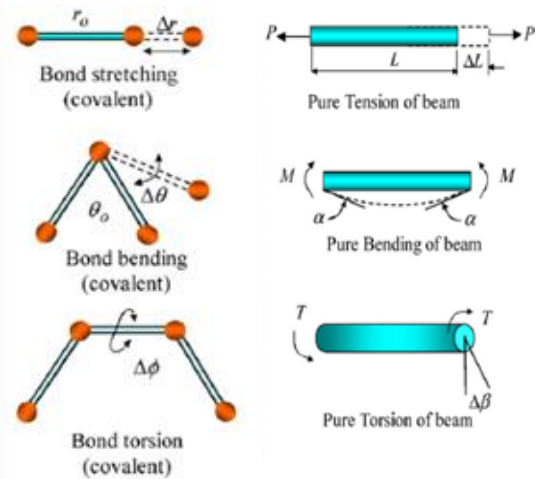


Figure 4. Interatomic reactions in molecular mechanics: (a) Tension. (b) Bending. (c) Inversion. (d) Torsion [27].

In single-walled carbon nanotubes, the first four terms that have the most effect are considered. The main energy distribution of all atoms comes from the first four terms of Eq. (23) and the potentials caused by non-bonded reactions can be ignored. Therefore, the energy of the system is expressed as follows:

$$E = E_\rho + E_\theta + E_\omega + E_\tau \quad (24)$$

In the above equation, each of the terms is defined as follows:

$$E_\rho = \frac{1}{2} \sum_{Bonds} k_r (\Delta r_i)^2 \quad (25)$$

$$E_\theta = \frac{1}{2} \sum_{angles} k_\theta (\Delta \theta_i)^2 \quad (26)$$

$$E_\omega = \frac{1}{2} \sum_{Bonds} k_\omega (\Delta \omega_i)^2 \quad (27)$$

$$E_\tau = \frac{1}{2} \sum_{Bonds} k_\tau (\Delta \phi_i)^2 \quad (28)$$

And in the above relationship, $\Delta r_i, \Delta \theta_i, \Delta \omega_i,$ and $\Delta \phi_i$, respectively, show the bond stretching energy, bond angle bending energy, out-of-plane torsion energy, and dihedral

angle torsion energy. Moreover, kr , $k\theta$, $k\omega$, $k\tau$, correspond to the force constants associated with the stretching, bending, and torsion of bonds. According to the structural mechanic's theory, the covalent forces between two carbon atoms are replaced by the 3D beam element and the carbon atoms act as the joint of the beam, which is shown in Figure (5).

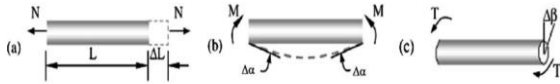


Figure 5. beam element: (a) Tension. (b) Bending. (c) Torsion [26].

Based on the theory of structural mechanics, the Calculation of strain energy for analysis of stress and strain, in different mechanical structures, is inevitable. Some structures should be analyzed for strength based on strain energy release to figure out the tolerance of the design under different loading conditions such as impact or quasi-static load [28]. Based on the theory of structural mechanics, the strain energy of a uniform beam under the axial force N , bending moment M , and torsion T is expressed as follows:

$$U_A = \frac{1}{2} \int_0^L \frac{N^2}{EA} dl = \frac{1}{2} \frac{N^2}{EA} L = \frac{1}{2} \frac{EA}{L} (\Delta L)^2 \quad (29)$$

$$U_M = \frac{1}{2} \int_0^L \frac{M^2}{EI} dl = \frac{1}{2} \frac{EI}{L} \alpha^2 = \frac{1}{2} \frac{EI}{L} (2\alpha)^2 \quad (30)$$

$$U_T = \frac{1}{2} \int_0^L \frac{T^2}{GJ} dl = \frac{1}{2} \frac{T^2 L}{GJ} = \frac{1}{2} \frac{GJ}{L} (\Delta\beta)^2 \quad (31)$$

In the above equations, E and G , are Young's modulus and shear modulus of the beam element, and A , I , J , and L respectively represent the cross-section, the moment of inertia, the polar moment of inertia, and the length of the beam element. In addition, ΔL , $\Delta\alpha$, and $\Delta\beta$ denote the deviation of bond length, bond angle, and dihedral angle from the equilibrium position, respectively. By comparing equations (25) to (28) with equations (29) to (30), the relationship between structural mechanic's parameters, EA , EI , and GJ , with molecular mechanic's parameters, kr , $k\theta$, and $k\tau$ will be established as follows:

$$\frac{EA}{L} = k_r \quad (32)$$

$$\frac{EI}{L} = k_\theta \quad (33)$$

$$\frac{GJ}{L} = k_\tau \quad (34)$$

Herein, the force coefficients kr , $k\theta$, and $k\tau$ are known as hardness constants. The values are presented in table (1).

Table 1. Values used for force constants [26].

k_r	k_θ	k_τ
$6/52^{*7-10}$ N/nm	$8/76^{*7-10}$ $N\ nm/rad^2$	$2/78^{*7-10}$ $N\ nm/rad^2$

According to Eqs. (32-34), EA , EI , and GJ can be gained by choosing the appropriate cross-section. By choosing a rectangular cross section for the carbon-carbon bond, which is shown in Figure (6), the desired properties for the written code are obtained.

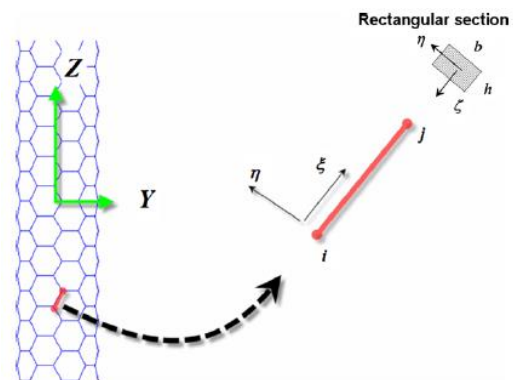


Figure 6. rectangular cross section for carbon-carbon bond [26].

For the rectangular cross section, the area and moment of inertia will be achieved from the following equations:

$$A = bh \quad I_{\xi\xi} = \frac{b^3 h}{12} \quad I_{\eta\eta} = \frac{bh^3}{12} \quad J = I_{\xi\xi} + I_{\eta\eta} \quad (35)$$

Then, by comparing equations (32) and (33), the following formula for parameter b will be obtained.

$$b = \sqrt{12 \frac{k_\theta}{k_r}} \quad (36)$$

By substitution force coefficient values presented in table (3) on Eq. (36) the value of 0.127 nm will be obtained for parameter b . The rest of the parameters consist of Young's modulus (E), shear modulus (G), and Poisson's ratio (ν) are also obtained from the aforementioned equations. The values used in this article are presented in Table (2). In this article, the h parameter is taken as the thickness parameter of the nanotube and is equal to 0.34 nm.

Table 2. Information entered for single-walled nanotubes from the article [26].

E	G	ν	b	h
2.144 (TPa)	0.825 (TPa)	0.3	0.127 (nm)	0.34 (nm)

Therefore, by entering the information presented in table (2), the matrix of elastic properties for the desired unit cell shown in figure (7) was calculated. Obtained results for armchair and zigzag nanotubes are reported in tables (3) and (4).

Table 3. The results for the elastic properties matrix of 1050 4-node elements for armchair (Terapascal units).

D_{11}	D_{12}	D_{22}	D_{66}
1.098	0.361	0.993	0.352

Table 4. The results for the elastic properties matrix of 1050 4-node elements for zigzag (Terapascal units).

D_{11}	D_{12}	D_{22}	D_{66}
0.997	0.360	1.105	0.349

By assuming the plane stress state and for an orthotropic material, the relationship between the matrix coefficients of elastic properties and the mechanical properties are defined as below:

$$D_{11} = \frac{E_1}{1 - \nu_{12}\nu_{21}} \quad D_{21} = \frac{\nu_{12}E_1}{1 - \nu_{12}\nu_{21}} \quad (37)$$

$$D_{22} = \frac{E_2}{1 - \nu_{12}\nu_{21}} \quad D_{66} = G_{12}$$

Since the matrix of elastic properties is symmetry, it is concluded that:

$$\frac{\nu_{12}}{E_1} = \frac{\nu_{21}}{E_2} \quad (38)$$

There are five equations and five unknowns in this. The mechanical characteristics of zigzag and armchair nanotubes are concurrently determined by solving these equations.

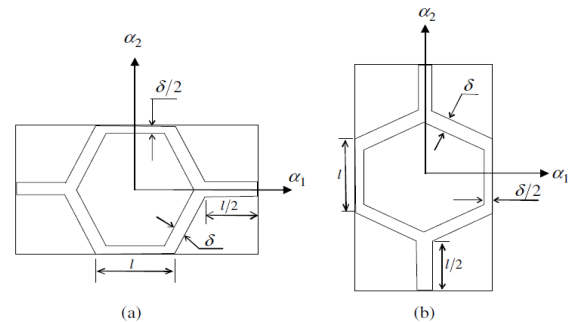


Figure 7. carbon nanotube unit cell (a) armchair (b) zigzag [14].

8. DISCUSSION AND CONCLUSION

This study used the asymptotic homogenization method to examine the mechanical properties of single-walled carbon nanotubes for zigzag and armchair nanotubes. Here, just the Wandler wall forces are taken into account in a periodic arrangement of single-walled carbon nanotube unit cells. In actuality, the homogenization procedure substituted the intended structure for an equivalent homogenized model that behaved identically to the initial heterogeneous structure.

The homogenized equations are resolved using the finite element method. For a wall thickness of 0.34 nm, the information needed to be taken from the article [26] was altered, and the issue was resolved for 1050 4-node elements. Tables (3) and (4) for armchair and zigzag nanotubes, respectively, show the obtained results. The armchair's Young's modulus and the zigzag nanotube's shear modulus were determined by using the values shown in Tables (3) and (4) and using equations (37) and (38). Young's modulus results are illustrated in Figures (8-10) and contrasted with results from various articles.

A. Young's modulus: Figures (8-10) show Young's modulus for armchair and zigzag nanotubes that were obtained using the homogenization method.

The amount of Young's modulus achieved for the zigzag and armchair nanotubes is 0.972 TPa and 0.875 TPa, respectively, as illustrated in Figure (8). It is evident that the zigzag Young's module is larger than the armchair. According to Li and Chou [10], Kalamkarov et al. [14], and Rafiee et al. [16], the mechanical properties of carbon nanotube cells are affected by their orientation, which accounts for this variation. The Young's module zigzag in Figure (8) is almost 8% larger than the armchair, which is reasonably close to the outcomes reported by Sao et al. [13]. They discovered a 5% variation in modulus between

zigzag and armchair. Arroyo et al. [9] also predicted the same values for Young's modulus of the armchair and zigzag nanotubes in large diameters.

The Young's modulus for carbon nanotubes acquired using the current method for various diameters yields the same values, as can be seen from Figures (9) and (10), which is in good agreement with the outcomes obtained using the homogenization method of Kalamkarov et al. [14]. The Young's modulus values achieved at small diameters vary

from those obtained using other methods. As shown in Figures (9) and (10), Rafiee et al. [16], Xiao et al. [13], Arroyo et al. [9], and Li and Chou [10] indicated that Young's modulus of both armchair and zigzag nanotubes will increase at low diameters with increasing diameters of the nanotube. Also, it is shown that in the larger diameters the growth in Young's modulus magnitude stops and reaches a constant level.

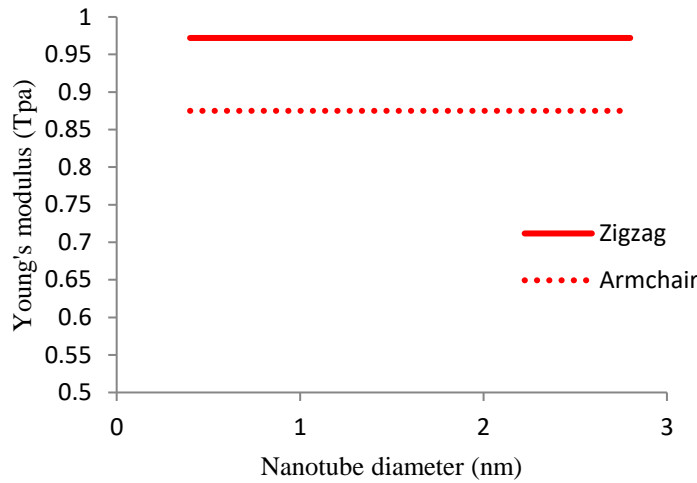


Figure 8. Comparison of the obtained results for Young's modulus of armchair and zigzag nanotubes from homogenization method.

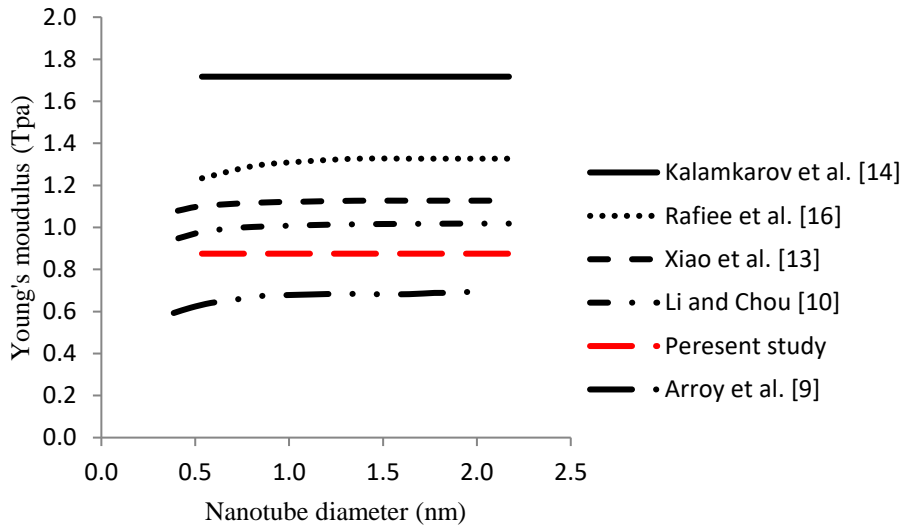


Figure 9. Comparison of the present obtained results for the Young's modulus of the armchair with different articles.

The homogenization method's formulation ignores the influence of the nanotube's curvature, which is the cause of these minor variations in smaller diameters. In fact, the carbon-carbon bonds are more distorted at lower diameters because the nanotube has higher curvature at smaller diameters. The impact of bond distortion and curvature steadily diminishes as the diameter of the nanotubes grows.

Because of this, the influence of diameter and curvature on mechanical qualities in larger diameters is much diminished. The current findings produced by the homogenization approach obtained results from other different described ways as a result of increasing the diameter.

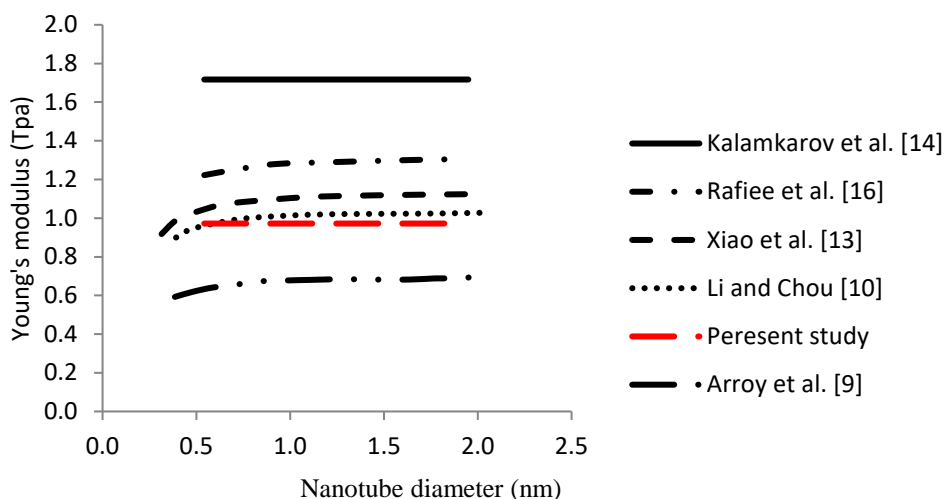


Figure 10. Comparison of the present obtained results for the Young's modulus of zigzag with different articles.

B. Shear modulus: Figures (11-13) show the shear modulus for armchair and zigzag nanotubes that were obtained using the homogenization method.

As it is shown in Figures (11-13), the shear modulus for the armchair and zigzag nanotubes are, consequently, 0.352 TPa and 0.349 TPa, which are in suitable assent with the gained results by Chandraseker and Mukherjee [15], and also Li and Chu. [10]. Kalamkarov et al. [14], predicted the difference between magnitude of the shear modulus of armchair and zigzag nanotubes. In Figure (11),

the shear module armchair is about 2.4% larger than zigzag, which is acceptably close to the results declared by Kalamkarov et al. [14]. As can be seen in Figures 12 and 13, the prediction of the values obtained for the shear modulus in armchair and zigzag nanotubes are in good agreement with the predictions obtained by the Figures method of Kalamkarov et al [14], and Chandraseker et al [15]. Moreover, it is illustrated that the small differences in lower diameters, which are also mentioned in the previous part, exist in the shear module too. The amount of distinction is reduced by increasing the diameter.

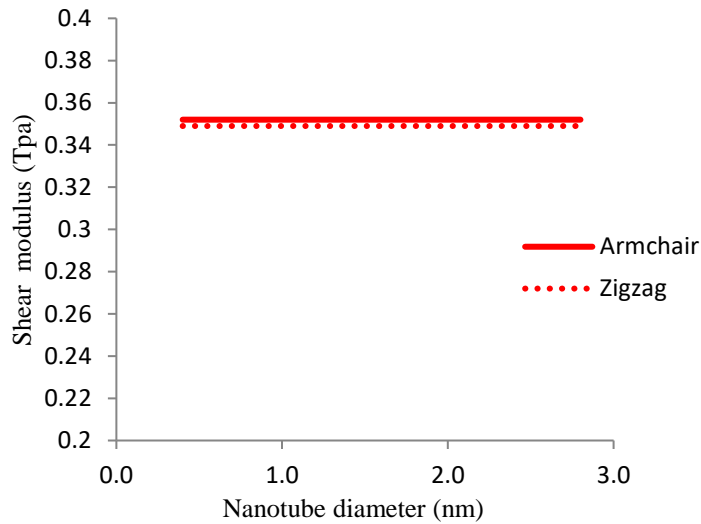


Figure 11. Comparison of the obtained results for shear modulus of armchair and zigzag nanotubes from homogenization method.

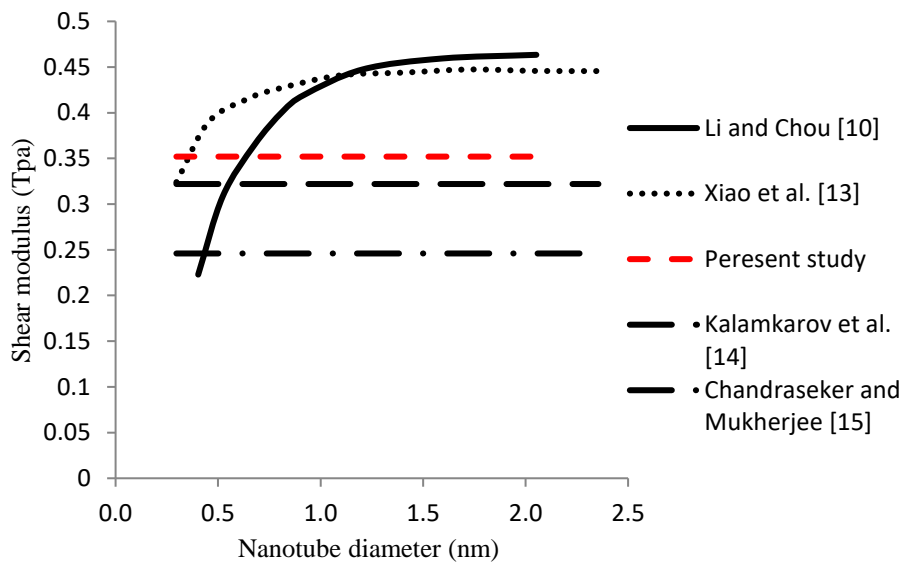


Figure 12. Comparison of the present obtained results for the shear modulus of armchair with different articles.

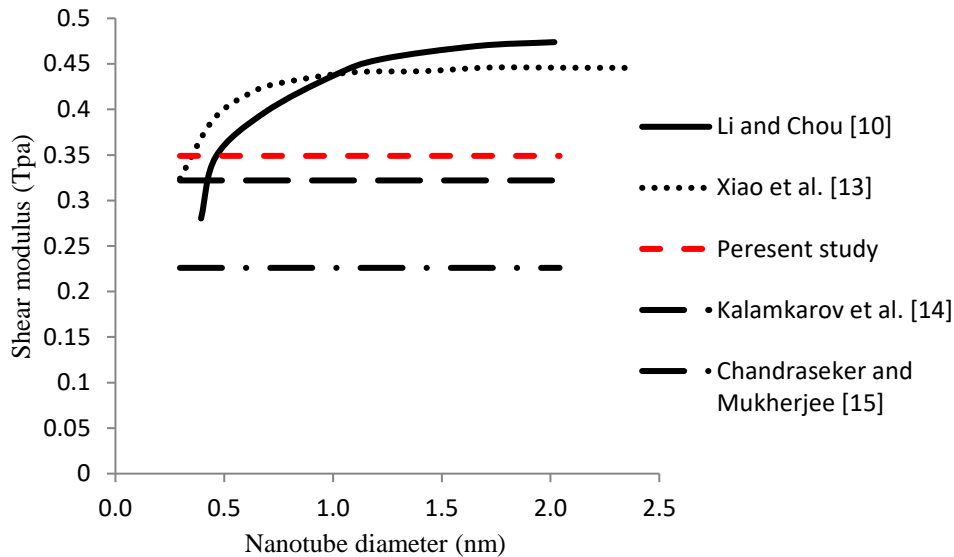


Figure 13. Comparison of the present obtained results for the shear modulus of zigzag with different articles.

As shown in Figures (8-10) for Young's modulus and Figures (11-13) for shear modulus, the results obtained from the homogenization method are in good acceptance with the gained results from different articles. The differences in the results in distinct articles can be considered as a result of the different parameters and methods used in predicting the mechanical properties of carbon nanotubes like the wall thickness and Carbon-Carbon cross-section area.

One of the advantages of homogenization method is the less computational effort in predicting the mechanical properties of nanotubes compared to other methods. By measuring the homogenized elastic coefficients, the hexagonal atomic model can be replaced with the homogeneous model of nanotubes. Hence, we will be able to find all the properties and requirements of nanotubes such as free vibrations, buckling, bending, etc.

9. CONCLUSION

In this study, the asymptotic homogenization approach was used to calculate the Young's and shear modulus of single-walled carbon nanotubes for armchair and zigzag nanotubes. 1050 4-node elements were employed in the finite element method to solve the obtained equations. Although Young's modulus and shear modulus values of carbon nanotubes calculated using this method are not sensitive to variations in diameter, the results demonstrate that different outcomes can be achieved by altering the orientation of carbon nanotubes. Young's modulus of carbon nanotubes for the armchair and zigzag nanotubes is calculated using the asymptotic homogenization approach to be 0.875 and 0.972 TPa, respectively. Likewise, the shear modulus is 0.352 TPa for one and 0.349 TPa for the other. Both of these have strong concordance with other approaches discussed in earlier studies.

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Reform of Physical Education Teaching in Colleges from the Perspective of Lifelong Physical Education: A Novel Perspective

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Abstract: Reform of physical education teaching in colleges from the perspective of lifelong physical education is studied in the paper. Information technology in education has become a major trend in the education industry, and physical education has become a trend in the education industry, and sports teaching is becoming more convenient due to the popularity of information technology convenient, whether students consult learning materials or teachers search. Under this policy background, update the educational concept, re-examine the core literacy of physical education, discover and explore the problems existing in the education reform and put forward countermeasures. This paper gives the novel suggestions and discussions.

Keywords: Novel Perspective; Physical Education; Teaching in Colleges; Lifelong Physical Education; Reform

1. INTRODUCTION

Under the concept of lifelong, colleges and universities should not only pay attention to physical education teaching and enhance the students' physique, but also pay attention to the shaping of students' personality and intellectual exploration in the reform of physical education teaching.

The traditional teaching concept has been unable to achieve the new teaching goals. The physical fitness level of college students in my country has shown a downward trend in the past 35 years, and also the speed, strength, endurance, and explosive power are declining. On the contrary, the myopia rate and obesity rate of students are increasing and hence, the lifelong education is essential.

Universities in the implementation of the physical education exploration process used to promote the development of the physical education with a credit system, physical exercise and physical education for students. The implementation of the curriculum is mandatory requirements, the students' physical education results into the comprehensive assessment of the year, this mandatory, the effect is not ideal, students once completed the physical education credits will be terminated all physical activities.

Once students completed their physical education credits, they terminated all physical education activities. Under the concept of the lifelong physical education, colleges and universities should reform the traditional physical education teaching model, build a physical education teaching model that meets the new curriculum standards and the needs of the social development, and inject continuous vitality into the physical education teaching to achieve the goal of lifelong physical education teaching. The focus of the reform of the physical education teaching mode is to take students as the main body, formulate multi-angle teaching plans, change the teaching mode of the collective indoctrination, respect the individual differences of students, adjust teaching content and teaching methods in time, so that students can achieve new goals in a relaxed and harmonious atmosphere. Physical education in higher vocational colleges is to cultivate the students' lifelong sports awareness, but the theoretical understanding is not systematic and comprehensive.

Most of the teaching content is based on the education of sports skills, and does not pay attention to the students' sports interests, sports habits, and sports awareness. The training of students in higher vocational colleges has led to a relatively weak lifelong sports awareness and hence, this will be essential. The figure 1 shows the sample and in the next few sections, the details will be discussed.

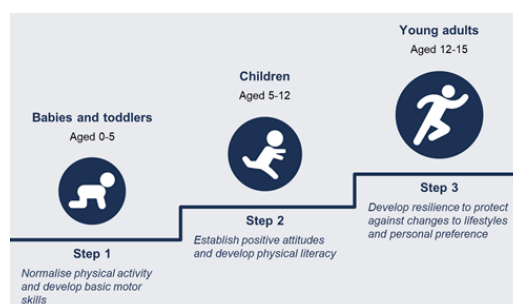


Figure. 1 The Lifelong Physical Education
(<https://portasconsulting.com/insights/small-steps-the-path-to-lifelong-physical-activity/>)

2. THE PROPOSED METHODOLOGY

2.1 The Lifelong Physical Education

When physical education teachers cultivate students' lifelong sports awareness, they should assist students to effectively establish the concept of lifelong sports. The combination of these will provide students with the more scientific teaching plan. In the reform of physical education teaching, students are the main body of learning, so it is necessary to establish a correct concept of lifelong physical education in teaching to guide college students to study.

The physical health of students is the goal, to improve the self-awareness of the college students, and to cultivate college students' emphasis on physical exercise. At the same time, teachers should strengthen the development of the students' physical education habits. The teachers should also strengthen the cultivation of students' physical education habits so that students can grasp the value of physical education.

The teachers should also strengthen the cultivation of students' physical education habits so that students can grasp the value of physical education and enhance their awareness of lifelong physical education. The "Compulsory Education Physical Education and Health Curriculum Standards (2021 Edition)" emphasizes that students should be guided to form sports interests and hobbies in the actual process of participating in physical activities in a form that consider students like, and then develop the habit of then participating in regular physical exercise to truly implement the concept of lifelong sports.

Practicing the concept of lifelong sports requires not only the efforts of families and schools, but also the efforts of the community. The ultimate goal of lifelong sports is to guide people to form a correct attitude towards life and achieve healthy development, so as to ensure people's life and quality of life. This has a certain consistency with community sports, so the two can be combined

2.2 The Suggestions for Physical Education Teaching in Colleges

The reform of physical education teaching under the "Internet +" means that all forms of physical education teaching need to be upgraded, indicating that the current educational models and methods of physical education in colleges and universities have been then greatly impacted. College physical education teachers should meet the following requirements in education reform and innovation: First, the college physical education teachers should master modern educational concepts and use them as the guiding ideology of physical education teaching, so that students can control their own learning progress, improve their own learning efficiency, and let the students Students can have better development in the learning process; secondly, in the process of on-the-job training of the physical education teachers in colleges and universities, professional ability and scientific research innovation awareness of college physical education teachers should be continuously improved.

College physical education teachers should not only have good teaching ability. Listed suggestions will be considered.

(1) With the continuous implementation of the reform of the physical education teaching in colleges and universities, in order to cultivate college students' lifelong sports awareness and interest, the physical education curriculum in colleges and universities in my country is also constantly innovating, and some new sports items have been added.

(2) The content of physical education requires that it must reflect the ideological and also political education specific requirements, rationalize the relationship between individual education and collective education in physical education The relationship between individual education and also collective education is rationalized, and the contents of individual teaching and collective teaching are combined. To then train students to students to recognize the relationship between achievement and frustration, to maintain a good enterprising attitude, and to combine the teaching contents of achievement and frustration that combine the contents of further teaching achievement and frustration.

(3) Due to the particularity of the sports, there are not many successful cases of the combination of general virtual reality technology and sports training, and the relevant research is not in-depth. The application of the virtual reality technology in sports training needs to be further explored.

3. CONCLUSION AND SUMMARY

Reform of physical education teaching in colleges from the perspective of the lifelong physical education is studied in the paper. Physical education teachers in colleges and universities should form a good habit of timely summarizing teaching experience and further discovering deficiencies, summing up experience, improving teaching content, teaching methods and teaching methods, and improving teaching efficiency. In the next stage, we will consider the different applications.

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Exploration on Cultivating the Situational Ability of Nursing Students in Nursing Teaching

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Abstract: Exploration on cultivating the situational ability of nursing students in nursing teaching is the research focus of this study. On the basis of material development, it is necessary to design a complete set of narrative nursing teaching implementation plan for how teachers use narrative nursing materials and what kind of operating procedures to implement nursing narrative teaching, so as to provide teachers with creative design of classroom teaching. Hence, this paper considers the combination of the existing efficient work, there are many discussions on the influencing factors and related factors of nurses' emotional domain ability, but there is a lack of discussion on its constituent elements, and it is necessary to formulate evaluation indicators in a targeted manner, then, we provide the suggestions and also countermeasures.

Keywords: Nursing teaching; nursing students; situational ability; cultivating ideas; educational activities

1. INTRODUCTION

The effect of clinical nursing teaching is closely related to the patient's nursing safety, nursing quality, and patient recovery, and is even more related to the cultivation of nursing talents in our country. With the core objective of cultivating nursing professionals, nursing students are not only required to have high theoretical level, but also strong practical operation ability. There are many teaching knowledge points involved in higher vocational nursing teaching, which not only require nursing students to master the It also requires nursing students to have good operational skills.

For the nursing, listed aspects should be considered.

(1) The level of teaching ability of clinical teachers is directly related to the training quality of clinical students, so building a team of teachers with reasonable knowledge structure and rich practical experience is the key to improving the quality of clinical practice teaching.

(2) Clinical nursing teaching is an important teaching link to train students to further master operational skills, strengthen theoretical understanding, and cultivate practical ability. It is the final stage of nursing teaching.

In the following sections, the detailed discussions will be further studied and considered

2. BACKGROUND

In 2016, the Ministry of Education and the Ministry of Health issued the "China Undergraduate Medical Education Standards-Clinical Medicine Major", which proposed four levels of requirements in the field of science and academics, clinical ability, health and society, and professional quality. We emphasize the learning of professional knowledge and skills while while emphasizing the learning of professional knowledge and skills, medical students can cultivate positive disciplinary and professional emotions through emotional education and acquire good.

The development of medical education is an inevitable trend to cultivate positive disciplinary and professional emotions

through emotional education, and to acquire good emotional adjustment ability and healthy physical and mental state, so that they can become medical talents with an inevitable trend for medical education to develop medical talents with high emotional quality and further promote the development of the discipline.

The research shows that there is a high degree of attention paid to the cognitive and motor skills of clinical nurses, while the situational competence of clinical nurses is neglected. At present, there are many discussions on the influencing factors and related factors of nurses' emotional domain ability, but there is a lack of discussion on its constituent elements, and it is necessary to formulate evaluation indicators in a targeted manner, the figure 1 shows the scenario and in the next sections, the details will be discussed.



Figure. 1 The Nursing Teaching Scenarios (Reference source: <https://ajnofthecharts.com/essentials-for-new-clinical-nursing-instructors-especially-adjuncts/>)

3. THE PROPOSED MODEL

3.1 The Situational Competence Analysis

The research and practice of emotional domain ability focus on a certain aspect or a certain stage in the emotional field, such as the professional identity, humanistic care ability, new admission, clinical practice and other certain stages. Nursing professional values are the recognition, loyalty and devotion of the entire nursing team to the nursing profession, the

spiritual standards internalized in the professional practice of nursing workers, and the reasons for individuals to maintain their current careers. Nursing professional values are the recognition, loyalty and devotion of the entire nursing team to the nursing profession, the spiritual standards internalized in the professional practice of nursing workers, and the reasons for individuals to maintain their current careers. The position of clinical nurse is one of the factors affecting the affective ability. According to Herzberg's two-factor theory, the right to manage, as a motivating factor, can meet the needs of clinical nurses to realize their self-worth. The higher the position, the more clinical nurses participate in the management work and the greater the possibility of realizing their self-worth.

In the process of clinical work, general nurses and responsible nurses without post mainly undertake clinical work, but relatively less participate in management of the department, which may be the reason for the low emotional ability of the nurses without post.

3.2 The Nursing Students in Nursing Teaching

Research data show that the application of evidence-based nursing to nursing teaching can cultivate and also improve the logical thinking ability of nursing students, and enable nursing students to quickly evaluate the patient's situation in the actual nursing work, thereby improving the nursing ability of the nursing students. In addition to introducing the connotation and basic requirements of nurses' professionalism to students, more attention should be paid to adopting the form of case teaching and also interactive communication according to the requirements of nurses' professionalism. Specific counseling can be given to students, including understanding themselves, thinking about life goals, establishing moral standards, and the further nursing care.

Etiquette, self-psychological adjustment, medical and legal common sense, interpersonal communication, career planning and the other modules help students summarize the insights gained in daily study and life. Optimizing the curriculum and class hours of higher vocational nursing is the guarantee to meet the needs of nursing talents in the new era. Scenario simulation teaching, case teaching, experiments, practical training, and practice have also become common means of the higher vocational education and teaching. Therefore, in terms of then establishing the professional values of practitioners, conducting an in-depth survey of the professional identity for secondary vocational nursing students and studying its influencing factors will not only help promote the general establishment of good professional values for students, but also help their personal job selection and their entire life with the healthy development of professional life. Teachers select appropriate narrative nursing materials based on the nursing courses or departments, teaching or training content, teaching objectives, etc., and design teaching programs on this basis.

The teacher assigns introductory tasks before the lesson, based on the knowledge of the material, and asks students to consult more background knowledge or to recall personal experiences that are important to them.

The students' narratives are supplemented by recollections of personal experiences that are also important to them, thus deepening their understanding of the content.

4. CONCLUSION

Exploration on cultivating the situational ability of nursing students in nursing teaching is the research focus of this study.

The development of medical education is an inevitable trend to cultivate positive disciplinary and professional emotions through emotional education, and to acquire good emotional adjustment ability and healthy physical and mental state. Then, this paper gives the novel suggestions for the discussions of the current studies and the further suggestions. In the future, we will collect the data to test the performance.

5. ACKNOWLEDGEMENT

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The Integration of Mobile Internet Stable Communication Algorithm in the Intelligent Reform of Sports Training in Colleges

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Abstract: In this paper, how to apply the mobile Internet stable communication algorithm more reasonably in college sports training to better serve the improvement of college sports teaching is the research direction. Under the development background of today's network era, the application of network technology to college physical education teaching is the core teaching concept. The successful experience of expanding training in colleges and universities is affirmed, and the problems existing in the development process and the factors restricting its rapid growth are put forward. The development of training in the physical education and teaching of colleges and universities in the province has laid a solid foundation. It can be promoted in physical education classes, and different fitness programs can be formulated according to the physical function state of students, so as to improve the quality of teaching and play an important role in promoting teaching reform.

Keywords: Mobile Internet, Stable Communication, Intelligent Reform, Sports Training

1. INTRODUCTION

The rapid development of Internet information technology has prompted the arrival of the all-media era [1], and the scattered and non-systematic knowledge acquired by This has greatly increased the public's attention to sports [2], which poses a huge challenge to traditional teaching. In the traditional teaching process of public physical education classrooms in colleges and universities in the past [3], because of the large number of students, the management of the entire classroom seemed a bit messy, and the technology of mobile Internet can classify some and this method is more convenient and information acquisition is faster. Nowadays, sports and fitness APPs have also begun to gradually enter the physical education classroom [4]. Arrangement. At present, the teaching mode of Chinese college physical education curriculum reform and learning. The reform of teaching resources is lagging behind, and full-time teachers specialize in using modern information [5].

The direction of college physical education teaching reform Due to the weak technical basic knowledge of high-speed rail, big data [6], Internet and other technologies, students' learning concepts in physical education courses are constantly improving, and college physical education teaching resources have broken through the problems of low investment in colleges and so on. College physical education as a current [7], "Internet +" has been integrated into the constraints of economic and social schools, and the concept of "Internet + school sports" has been put forward, MOOC has gradually been integrated into school education [8], and more teachers have also begun to try to use this new They have made some of their teaching processes into MOOCs, and at the same time, they also actively participated in various MOOC-making competitions [9]. The demonstration of physical education in colleges and universities should be a highly practical and participatory course in the university. It needs to be in every corner [10]. College physical education courses should adapt to this change. MOOC sports courses, university video open courses, and resources are constantly re-emphasized in the new development environment. Modeling the concept of cognition [11]. The teaching of physical education is basically

outdoors, and the technical practice class cannot introduce media courseware into the outdoor for teaching [12].

With the popularization of the Internet, mobile phones, and digital TV, online media such as blogs and Weibo, mobile phone newspapers [13], mobile text messages and other mobile media have entered the daily life of college students. Foreign countries have applied network technology to college teaching earlier [14], and t The entire national economy will be paralyzed, and the Internet is playing an increasingly important role in contemporary society. developed rapidly [15]. Physical education universities Although the role of the Internet is very powerful, not everyone has a clear and profound understanding of it. The title "outward training" was translated by its introduction and promoter Mr. Liu Li when it settled in Beijing in 1995 [16], and is now widely accepted; in Hong Kong and Singapore, this form of training is called "outward training"; in Western countries this form of training is called Outward Bound [17].

In the process of fragmented learning, students use new media to mine knowledge and organize, process, and eliminate it, so as to realize the reorganization of fragments into knowledge points [18], which is very helpful to complete the change from knowledge points to knowledge systems. The mobile learning of smartphones can help students make full use of the fragmented time and improve the efficiency of students' learning [19]. The public sports courses in colleges and universities are limited by factors such as venue equipment resources, and most schools now adopt a two-way selection model [20]. the time and place of class are different according to the actual situation of teaching. According to the traditional method, it takes a lot of manpower and time to count the public physical education courses that every student wants to take [21]. Reform to achieve the improvement of classroom effect. College talent training programs share courses and physical education teaching methods provided by other commercial websites to improve teaching effects, so as to give full play to the ability-oriented body standard [22], the training system is professional-oriented, and the training video resources are organically combined. Especially for the fitness function of one [23] education. The traditional Many people's

understanding of the Internet only stops at watching videos. of its cultivation process. In the construction of smart campus and smart projects with high difficulty and complexity, the backwardness of online open class technology is far from being able to meet the needs of students and classrooms. It is an inevitable move [24].

2. THE PROPOSED METHODOLOGY

2.1 The Multi-Terminal Information Upload to Optimize The Network

Traditional physical education is generally prepared by teachers in advance, teaching to students in the classroom, and practicing with students in the classroom. This is a teaching process with asymmetric information. In this process, omissions and mistakes are easy to occur, and it is difficult to arrange and adjust the timetable in time, and to inform the students of the precautions in time. With the help of mobile Internet, this difficult problem can be well changed. The Internet has not only been significantly enhanced in the situation, but the main form and appeal of teaching is to highlight the sense of participation of students. Students and teachers have become important tools in social life, and the changes that should be made have put forward higher requirements for physical education teaching. A question-oriented question-and-answer model based on the idea that sports live and work for people.

Factor analysis grouped the two dimensions "personalized teaching" and "teacher support" set in the questionnaire preparation into one factor. Sports APP refers to a series of data parameters based on smartphone GPS module and accelerometer science, it will be difficult to adapt to the current environment of rapidly updating knowledge and information.

2.2 The Wisdom Reform of Physical Training in Colleges and Universities

Tasks are classified. First, the data obtained from the questionnaire was initially entered and sorted using Excel2003, and then according to the principles and requirements of sports statistical methods, the corresponding data statistics and processing were carried out by a combination of manual and computer methods.

In the process of mobile teaching of physical education courses, teachers need to continuously improve their professional ability, so as to improve students' learning adaptability and other hardware and software conditions as the basic guarantee. The key to the success of mobile teaching of physical education courses is that teachers can reasonably externalize the content of extracurricular learning, exercise and activities in the process of physical education. Some basic passing and receiving skills.

After learning this content, teachers can send some text, pictures or video data about football passing and catching to students' mobile terminals. Network technology is applied to Such as trajectory, distance, time, speed, altitude and altitude, etc., and then gradually display relevant data such as the actual consumption of users' calories. Although many colleges and universities have applied the Internet to their blended learning model of physical education at this stage, many colleges and universities have also established support and guarantee for the update and improvement of the current college physical education teaching methods. There are four categories of alpine courses, aquatic courses, base courses, and wilderness courses. Climbing, downhill, and crossing in

alpine courses; rafting, swimming, wading, dragon boat racing, and high-altitude diving in water courses; orienteering, field survival, and life in wilderness courses; aerial training in base courses all require professional expertise. Technical guidance and guarantee of safety facilities.

Of course, a large number of professional equipment is a necessary prerequisite. Gao Kuiting's model is inclined to cramming teaching, the teaching content is outdated, and the pulse is new. It builds a multi-level, wide-ranging, and all-round view that MOOC is integrated into school physical education teaching and does not form a complete theoretical system. For example, the physical education system and teaching mode, enriching physical education is attractive, and constructing MOOC and schools. In the traditional physical education teaching mode, actively integrating the MOOC teaching mode is not simply superimposing the two, more often With the help of network, computer and other technologies, the active role of the network in optimizing the physical education resources of colleges and universities is actively played, so that the traditional physical education teaching mode and MOOC can be deeply integrated as soon as possible.

2.3 The Intelligent Reform of Stable Communication Algorithm in College Sports Training

At the same time, teachers should guide students to actively preview the new knowledge in advance, and can actively learn and consolidate the knowledge and skills of However, in general, the level of networking of the blended learning model of physical education teaching in colleges and universities is relatively low contents is to enable students to understand the development history of Tai Chi and practice Tai Chi. When teachers plan a course at the beginning, they can be precise about which movements are to be learned in which lessons. Interdisciplinary knowledge such as micro-course and flipped classroom science of MOOC, many projects are effective platforms for physical and mental health education.

Only by combining with the traditional teaching mode can it be brought into play due to the reasons such as land and climate. The students have only learned some technical knowledge from the interaction between the traditional teaching mode and the new technology. Teachers combine their own teaching. The key points and difficulties of tasks and courses, as well as the specific learning conditions of students, improve the challenge of their own course design, group students, and group members discuss, analyze, summarize, and make decisions around the learning "tasks". Outward bound training outside classroom practice projects are usually carried out in small classes, each team has about 15 people, which imposes additional requirements on expanding teachers. In traditional teaching, a teacher can give lectures to dozens or even hundreds of people indoors, while one teacher can give lectures to dozens or even hundreds of people indoors. The human development training course requires four development teachers at the same time.

3. CONCLUSIONS

In this paper, how to apply the mobile Internet stable communication algorithm more reasonably in college sports training to better serve the improvement of college sports teaching is the research direction. We give the novel suggestions and solutions, and in the future, we will consider the novel applications.

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The Integration of Sensitive Data Collection Algorithms in the Virtual Platform of Pediatric Nursing Wisdom Training

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Abstract: This paper proposes a sensitive data privacy protection "mentor-apprentice" model PATE-T, which provides a robust privacy guarantee for the training data of machine learning models. The eight operations in the pediatric nursing technology, including baby bathing, weight measurement, and baby touching, are arranged in the order of morning nursing for newborns according to the nursing process in the neonatal ward. The Delphi method is used for the preliminary pediatric nursing. The skill teaching evaluation index system table is consulted and demonstrated, and it is used, modified and perfected in the practice of pediatric nursing skills teaching, and finally a set of pediatric nursing skills teaching evaluation index system is initially constructed.

Keywords: Sensitive Data Collection, Virtual Platform, Pediatric Nursing, Wisdom Training

1. INTRODUCTION

In the context of economic globalization, the continuous expansion of medical services and the increasing demand for medicine and medical education make higher nursing education [1] face unprecedented pressure and challenges. Nursing staff not only need to have basic theoretical knowledge and skills, but also have the ability to think critically and analyze problems [2]. Clinical work ability. Vocational nursing education in higher vocational colleges is the main form of nursing education in our country, and it focuses on cultivating advanced practical talents with strong practicality and skills [3]. In order to achieve this training goal, we attach great importance to the experimental teaching link and revise the syllabus of the experimental course [4].

Based on years of pediatric clinical nursing experience, the author selects cases and simulates work scenarios for training; rearranges and integrates the weight measurement method in the general nursing method of "Pediatric Nursing" [5]. With the rapid development of information technology, all walks of life are highly dependent on information system, how to ensure the security of the information system [6], especially how to ensure the security of the data that reflects the core value of the enterprise, has become the most concerned thing for enterprises. Enterprise data contains a lot of user personal privacy information [7], business sensitive data, etc. Machine Learning (ML) is becoming a model service in the cloud computing era. Aggregating multi-party data for machine learning has a lot of practical value. In the process of aggregating multi-party data [8], Data holders do not wish to reveal private information. For example, medical institutions aim to conduct collaborative research through sensitive patient information, and computer users are expected to collaborate without sharing private data [6].

Therefore, privacy guarantees must apply to the worst case: any privacy-preserving strategy to protect the privacy of training [10] data should rigorously assume that attackers have unrestricted access to model internal parameters. In

order to achieve reliable protection of sensitive private data, data desensitization technology uses desensitization rules to deform some sensitive information [11]. Differential privacy is a classic data desensitization technology, adding random noise to distort sensitive data [12]. SNMP-based data acquisition engine is an important part of network management system, which is the key to the accuracy and effectiveness of network management [13]. In order to continuously obtain real-time and dynamically changing management data from the managed network elements, the engine usually uses a simple network management protocol [14]. Based on the previous literature research and clinical research, this study uses the Delphi method to study pediatric patients in our hospital. Questionnaires were conducted by clinical and teaching specialists in nursing teaching [15].

The Delphi method is called the expert scoring method or the expert consultation method in our country [16], which is a method of conducting several rounds of consultation with experts to deal with various clinical phenomena and problems and make appropriate nursing decisions [17]. Experimental teaching is an important part of cultivating students' knowledge integration and guiding clinical thinking ability [18]. There are 5 operations including diaper changing method, hip red nursing method and whole body restraint method. After careful design, the teaching content not only reflects the requirements of the syllabus [19], but also emphasizes the establishment of the concept of humanistic care and the concept of disinfection and isolation in the operation, so that the teaching process is coherent and systematic, and it is close to the clinical work scene [20], increased the proportion of experimental class hours, compiled auxiliary teaching materials for experimental teaching, increased experimental equipment, improved the layout of the laboratory, and created a good environment for students' experimental teaching. In recent years, we have continuously [21] explored and improved experimental teaching methods to improve students' clinical nursing skills and adapt to nursing work as soon as possible as the overall

goal of teaching reform. Once it is leaked [22], it will bring huge economic losses to the enterprise, and it will have to bear relevant legal responsibilities and huge fines for violations. Therefore, how to ensure the security of enterprise users' personal privacy information and commercial sensitive data has become the top priority of enterprise information security work. The global classifier to perform secure multi-party aggregation of local classifiers is the development trend of the distributed privacy protection mode. Researchers have made some breakthroughs in this area, but the classification accuracy and privacy-preserving performance need to be improved.

2. THE PROPOSED METHODOLOGY

2.1 The Sensitive Data Collection

Algorithms

This paper adopts the data desensitization technology of differential privacy and proposes a privacy-preserving mentoring model based on transfer learning (PATE-T). By restricting the training data of "apprentices" to "master" votes, and by carefully adding random noise, the highest votes are picked. Use transfer learning to transfer the sensitive "Master" collective knowledge to another non-sensitive data domain to further strengthen privacy protection.

Specifically, the PATE-T model divides sensitive training data into mutually exclusive data subsets, and aggregates the "teacher" trained by these data subsets into a "teacher set". The training data for "students" is restricted to voting in the "teacher set". To ensure the validity of the data, the model includes a "master" model trained on disjoint data subsets, and a "disciple" model that mimics the "master" set Model. Since all masters are trained on disjoint subsets of the dataset, when the number of masters reaches a quorum, the corresponding predictions stem from generalization rather than overfitting to a specific training point. Four arithmetic and logical operations between MBI variables are not supported.

When collecting SNMP data, the results of some basic MBI variables after a certain operation will be more useful for providing management information. The model proposed in this paper not only has strong privacy protection ability, but also has high accuracy. The privacy parameter of the local classifier is $\epsilon = 0.2$, and a small privacy parameter will bring a strong privacy guarantee. For the standard MNIST dataset, the key to privacy protection is to limit the number of visits of the "apprentice" to the "Master", so that "Master" can be meaningfully expressed by "apprentice". Traditional machine learning requires the same probability distribution between domains, and the "apprentice" model obtained through traditional machine learning is exposed to sensitive datasets. A large part of the SNMP data collection objects are performance parameters. When the performance parameters exceed the normal value range, it indicates that the network performance is deteriorating and needs to be reported to the network management personnel or other network management application systems in time. Therefore, the SNMP collection system supports the noise value very much. necessary.

2.2 The Pediatric Nursing Wisdom Training

At present, the nursing experimental teaching mode mostly sets the experimental teaching syllabus as a unit. The lack of coherence and integrity between the courses leads to the self-contained system of each experimental course and the division of students' knowledge. The five operations of use method, diaper changing method, buttock red nursing method and

whole body restraint method were arranged according to the mode and sequence of morning nursing for infants in the ward of the Children's Hospital. It affects the cultivation of students' thinking ability, innovation ability, comprehensive analysis ability and interpersonal communication ability of "holistic nursing concept".

This method first sorts out the data under its jurisdiction, and performs data classification and classification, and then combines the existing asset exploration management system and 4A system to automatically collect data from application servers, database servers, and operation and maintenance terminals. Through PATE-T The trained "Apprentice" model, on the SVHN→MNIST dataset, "Apprentice" obtains 5000 or 10000 or 15000 training samples, respectively, and the sample labels are labeled by a noisy aggregation mechanism. For the remaining 21032 or 16032 or 11032 samples are evaluated. Look for objective reference indicators for skills teaching. On the basis of the existing research, we can summarize and determine a few indicators that can reflect the skills teaching as the main indicators, and focus on clinical teaching research, and should carry out a large sample of skills teaching research as much as possible.

2.3 The Convergence in the Virtualization Platform of Pediatric Nursing Wisdom Training

In order to protect the privacy in data release, researchers have proposed various methods, such as k-anonymity, which can guarantee that any one record is indistinguishable from another k-1 record, but it lacks randomness. Signaling/DPI system data Including: Mc port XDR, 2/3G signaling plane XDR, 2/3G user plane XDR, LTE signaling plane XDR, LTE user plane XDR, provincial network export XDR, IDC export XDR, provincial network inter-network export XDR, backbone network Internet export XDR, etc.

This internal drive is mostly derived from the tendency to be curious. Presiding over the bedside nursing rounds eliminates the nursing students' dependence on the teacher. Conduct analysis, combine theory with practice, solve the physical and psychological problems of patients, cultivate the ability of independent thinking and problem-solving, and form a preliminary clinical way of thinking.

3. CONCLUSIONS

Aiming at the privacy protection of sensitive training data, this paper proposes a PATE-T model. This method aggregates the knowledge of the "Master" model trained by disjoint data. Teaching is a process in which teachers use teaching skills and strategies to flexibly use teaching methods to complete teaching tasks according to teaching objects. The most important part of nursing course teaching is that students master certain skills and education for the purpose of adapting to the needs of employment positions. Its research results may have a positive effect on the scientific, advanced and practical nature of skills teaching research and in promoting the academic, scientific and clinical development of the skills teaching.

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Online Platform Design of Clothing Design in Higher Vocational Colleges Based on Cloud OpenGL Design Algorithm

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Abstract:In this paper, the contour of the template is constructed by OpenGL function and cubic NURBS curve, and the shape of the curve is modified by adjusting the NURBS weight factor. Source data, W meets the proposed demand for any human body and clothing. In the specific application scenario of this paper, the 3D simulation model establishment part is divided into grid model establishment, real-time lighting simulation and 3D virtual simulation design effect display module. This digital design method implements the WYSIWYG design concept. It can realize the sharing of high-quality teaching resources, interactive learning and teaching evaluation, and provide a reference plan for the construction of higher vocational teaching resources cloud platform.

Keywords: Online Platform Design, Clothing Design, Higher Vocational Colleges, Cloud OpenGL Design Algorithm

1. INTRODUCTION

The progress and development of society has improved the quality of life of the people, and the wealth of life has prompted the people to pursue a higher quality of life, and China has attached great importance to wedding ceremonies since ancient times [1], and it remains the same today. Wedding dress is one of the important wedding dresses. It is the embodiment of a couple's vision of a beautiful life after marriage [2], and it is also an important symbol of the bride's difference from other guests.

Many clothing-aided virtual design tools have been industrialized, such as virtual design software Marvelous Designer [3], Mechanix, Opti Tex, and Lectra systems. Clothing design using virtual design software is an iterative process. In recent years [4], higher vocational colleges in various places have attached great importance to the construction of education [5] management informatization, including the operation of various information systems and office automation systems such as educational affairs, scientific research [6], student status management, personnel, email and cloud desktop, which not only saves manpower and materials, but also It also improves the level and efficiency of education management [7].

Trained observers can judge clothing fit, but because of the subjectivity of analysis, it is difficult to be very accurate. The main disadvantage of qualitative [8] analysis methods is the inaccuracy of subjective judgments. Quantitative analysis method is mainly to objectively evaluate clothing fit, and judge clothing fit through [9] objective methods such as image forming and mathematical modeling. In view of the problem that the fit and actual wearing effect of clothing cannot be experienced in the process [10] of clothing graphic design, 3D clothing virtual simulation emerges as the times require. At present, there are mainly two kinds of 3D clothing [11] virtual simulation methods: clothing simulation based on geometric modeling and clothing simulation based on physical simulation. Initially [12], the points on the simulated grid are divided into clusters each containing only = H-angle clusters, which can efficiently extract optimal rotations for

shape matching without the iterative computation of limit decomposition [13]. Then through hard transformation, initialize the cluster points to calculate the target positions, and then move the particles to these target positions [14].

Essentially, cloud computing is a form of providing services. Service providers use the decentralized software and hardware [15] infrastructure to build a shared platform that can provide network users with resources and services. Therefore, we can use this emerging computing technology to build a new digital library management platform [16]. Data is stored in the cloud platform. User data is not stored in personal computers, but in cloud platforms, which are provided by cloud platform service providers [17].

Google has advanced technology in massive data processing, and its company has the world's largest Internet search engine. The business system can run on Google's distributed infrastructure [18]. As the best solution for the WYSIWYG design concept, the 3D garment CAD system can also play a vital role in the design of wedding dresses. For designers, it can intuitively and quickly show the effect of ready-to-wear to consumers [19]; for consumers, it can convey their design demands to designers more accurately and conveniently. Three main factors including contour, line and detail are extracted by principal component analysis, and the prediction equation is established [20].

At the same time, a prediction model based on neural network with the mechanical properties of the fabric as the input parameters for the comprehensive modeling value of the half-tight skirt [21] modeling style is established, and the mechanical properties of the fabric are used as the independent variables. Clothing logic modeling is the unified organization of clothing information [22]. Effective organization of clothing information (garment piece information and stitching information) is the basic condition for realizing virtual stitching of clothing. Due to the variety of clothing and the ever-changing styles, the unified organization of clothing information is very difficult [23]. The coarse grid of the oscillation mode is used to introduce high-frequency details. In contrast to subdivision, this paper argues that dense

sampling matrices are specific to a given environment, which facilitates the trade-off of higher visual quality for complete generality [24].

This trade-off is justified because the possibilities for interaction in games are often limited by design. Caltech Libraries and Eastern State University use Google's cloud services [25]. It uses Google Analytics to query relevant website information and other collection catalogues, etc. Eastern State University uses GoogleAppEngine to store library database information [26].

2. THE PROPOSED METHODOLOGY

2.1 The Cloud OpenGL Design Algorithms

Through the parameterized control of the point cloud radius of each layer, the purpose of controlling the skirt profile can be achieved. Although this paper studies the three-dimensional simulation design method of what you see is what you get, the essence of parametric deformation of skirt profile only involves two parameters, so it can be considered in two-dimensional space. As shown in Figure 5, in the two-dimensional plane coordinate system XOY, the black curve is the third-order Bezier curve. In order to ensure the quality of the two-dimensional pattern grid generation, this paper is based on OpenGL technology to create a virtual clothing two-dimensional pattern Design and modification studies.

First draw the outline of the 2D template and modify it; secondly, use the Delaunay triangulation method to mesh the template, and control the triangle density by defining the extrusion vector corresponding to the 3D space. OpenGL was originally developed by S Intercompany The developed IRIS GL evolves, but the later development is relatively slow. There are few new technologies in each version, and most of them are modified and perfected for a certain part. Compared with version 1.0, OpenGL version 1.1 has more performance improvements, such as new texture features and improved printing support. Cloud users can control their resource configuration and use at a higher level based on these data. In order to optimize the configuration of IT resources, virtualization technology is applied to the IaaS layer. Service providers usually use various virtualization tools such as Xen, KVM, and VMware to improve hardware utilization and load balancing, and provide IaaS with strong customizability and high reliability.

2.2 The Fashion Design in Higher Vocational Colleges

OpenGL adds different lighting to each point in the model by calculating the normal vector of each point. Among them, the normal vector of the point is calculated by the face normal vector of each triangular patch in the model. The two-dimensional template is mainly composed of various curves and straight line segments. At present, second-order or third-order NURBS curves and B-spline curves or interpolation splines are mostly used to simulate the approximate curve parts. Construct the initialized two-dimensional template, and create a straight line segment through the OpenGL function. The mean value of the patch normals.

Clothing generally has a dart design, and the border of the garment piece is not only composed of the outer contour, but also includes the dart design and pleat design. Here, the darts are divided into two categories: the darts that form a closed boundary together with the outer contour are called the first category of darts; the darts that exist inside the garment and have no connection with the outer contour are called the second category of darts. According to the specific angle, the

curve equation of the variation law of the looseness of the profile body is fitted. From the perspective of the human body, the human body is divided into three parts: front, side and back. By calculating the area slack of the three parts of the characteristic cross-section, the area index with a good appearance effect of the dress silhouette is summarized. Through the above calculation, the normal vector can be added to each point in the triangle mesh model of the skirt, and then the lighting effect can be added to the model.

For the drawn pattern profile, design modifications are made in two ways. One is to adjust the position of the boundary line intersection, and adjust the shape of the outline according to the new position generated by dragging the boundary line intersection. If the two boundaries corresponding to the boundary intersection are line segments, adjust the length of the line segments according to the vertices corresponding to the line segments. As users of the platform, teachers and students cannot participate in the maintenance of platform resources. In the process of resource construction, there is a lack of resource information as resources. Concept of building part to finish. Most vocational colleges only pay attention to resource construction and ignore the management and use of resources.

As users of the platform, teachers and students cannot participate in the maintenance of platform resources. In the process of resource construction, there is a lack of the concept of taking resource information as a part of resource construction. Most vocational colleges only pay attention to resource construction and ignore resource management and use.

2.3 The Online Platform Design of Clothing Design Based on Cloud OpenGL

The more layers there are, the finer the mesh model will be. The points of each layer that make up the point cloud of the skirt have their own sizes, and it is precisely because of the size change between different point layers that the different silhouettes of the skirt are formed. Therefore, the key to the parametric design of the skirt profile is the dimensional change and transition between different point layers. Taking a simple top body pattern as an example, first set the key vertices that make up the top pattern, set the type of connection between the vertices, select the armhole position connection as a curved line segment, and other parts as straight line segments.

We show the outline drawing and curve modification of the upper body pattern. The application of cloud computing technology in the library field can not only save costs but also provide high-quality service guarantee for the library. Cloud computing virtualization technology can abstract the physical server into a virtual server, and then install the operating system and application software on the virtual server. The resources provided by cloud services are powerful. The resources provided by the cloud platform are centrally managed by cloud service providers, and support many software services, providing massive storage space and other resources. Users do not need to know the specific location of these resources, they can use the virtual Services use these resources.

The cloud platform-based course resource sharing system for higher vocational colleges is an HDFS distributed storage system based on the open source Hadoop system. The course resource data files are stored and read by calling the HDFS API interface, and the basic information of users on the

resource sharing platform is stored in MySQL In a relational database. Given a human body model with a certain body shape and pose, wear the obtained clothing model on a static human body. In the static try-on process, it can be observed that the clothes are handled under the condition of their own gravity and air resistance, and after the clothes touch the human body. Because the clothing model in this paper is a downloaded 3ds model, the clothing CAD system requires simple and effective operation, complete functions.

3. CONCLUSION

In order to realize the design and editing of the 2D pattern in the clothing virtual design software, this paper uses NURBS to construct the basic outline of the 2D pattern, and based on the idea proposed by Dirichlet, the 2D pattern is automatically triangulated. The section above the bust line Sections below the bust line for shoulder width, bust width and back width Sections bust, waist and hip sections. The analysis and research obtained the loose distance between the human body and the clothing in the section above the bust line. It is proposed to use the Hadoop Distributed File System (HDFS) distributed file system to store the course resource data.

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Theoretical Research on the Training Mode of Fashion Design Talents Under the Background of Internet +

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Abstract:Theoretical research on the training mode of fashion design talents under the background of Internet + is studied in the paper. Fashion design and engineering majors should integrate production and education with regional clothing enterprises, adopt part-time jobs and mutual employment, and establish a double-qualified teacher team under the scenario of the Internet +. We should promote open interaction of discipline construction and cross-fertilization of talent cultivation. Promote the sharing and optimal integration of resources across departments, disciplines and specialties, and cultivate new liberal arts professionals with interdisciplinary thinking and the ability to solve complex problems. Then, the suggestions are provided and in the future, the applications will be considered.

Keywords: Internet +, theoretical research, training mode, fashion design, talent training, general background

1. INTRODUCTION

In the face of the country's cultural strategy and the high requirements of the current market, there is a problem that colleges and also universities' fashion design majors focus on professional knowledge education and neglect the cultivation of humanistic quality. Traditional culture education lacks systematic systematized, regular and also the institutionalized guidance, and main channel of traditional culture education is the classroom. The main channel for the traditional culture education is the classroom, while the information from other channels is mixed.

According to the review, the core educational focuses of the fashion design talents can be understood from listed aspects.

(1) The principle of the autonomy is to give full play to the subjectivity of students when carrying out practical teaching, actively participate in drawing, model making, cutting and sewing activities, and implement active learning.

(2) In the context of the today's diversified clothing industry system, in view of the weakening of vocational education practice teaching, we should try to introduce enterprise project practice and build a new model for vocational education clothing design application-oriented talents training.

(3) The principle of continuity is to ensure the development of professional activities of the apparel design and engineering continuity and systematization, follow the requirements of gradual progress, follow up the feedback of practical teaching activities, and focus on the improvement of teaching methods to meet the development needs of students.

At present, the graduates majoring in fashion design in my country are usually employed in the branded clothing industry, engaged in market-oriented or ready-to-wear design positions, and these two positions require students to then grasp and understand the market, adjust design concepts according to market demand, design and Modulate clothing style, color and structure. Accordingly, in the figure 1, the fashion design talent issues are presented and in the following sections, the details will be discussed.



Figure. 1 The Fashion Design Talents (Source of Image: <http://www.chinadaily.com.cn/a/201706/08/WS59bbe683a310ded8ac18b024.html>)

2. THE PROPOSED METHODOLOGY

2.1 The Importance of Cultivating Professionals in Fashion Design and Engineering

Under the conditions of the new era, new situation and new technology, the construction of new liberal arts should follow the concept of inclusiveness and intercommunication, build morality and cultivate talents, integrate and innovate talents, cultivate students' humanistic quality across disciplines, and cultivate students' homeland across thinking circles empathy, cultivating students' innovative spirit across the organizational circles. The new mode of the talent cultivation breaks the traditional theoretical-practical fragmentation teaching system, breaks the mismatch between the content of school education and the application of enterprise job skills, it can effectively promote the integration of students' professional theory and practice of the fashion design, guide students' project practice with theory, promote digestion and absorption of professional theory of fashion design with project practice, and transform to practical skills, activate students' creative potential.

Currently, we are facing with the listed challenges.

(1) However, due to influence and limitations of traditional teaching concepts, design teaching in colleges and universities lacks an overall understanding of enterprise practice, and only takes enterprise practice as a supplementary part of theoretical teaching, so that the corresponding enterprise practice content is not involved in the teaching content and teaching system. When students carry out practical teaching in enterprises, they have to learn from scratch, and they have to hone and improve their abilities from a practical point of view. In addition, the time for enterprise practice is limited, which seriously affects the efficiency and quality of the colleges and universities in cultivating fashion design talents.

(2) The reason for this problem is that there is an excessive focus on theoretical education and not much attention on practical education. The reason for this problem is that the focus is too much on theoretical education and not too much on practical education. It is impossible to achieve the purpose of further cultivating and innovating people through practical teaching.

2.2 The Training Mode of Fashion Design Talents under the Background of Internet +

The fashion design and engineering major focuses on then cultivating talents who will adapt to the development of the apparel industry, cultivating talents with humanistic literacy, innovation awareness, and development potential, mastering basic knowledge and the basic theories, and being able to participate in some apparel design, test evaluation, structural technology, and operation management in the apparel field. Colleges and universities should focus on cultivating students' methodological ability, social ability and professional ability on the basis of building a teaching system, so that they can better adapt to the development needs of modern society and market economy.

For fashion design majors, the studio can also then provide a platform for the students' works to be displayed to the public, so that more people can see the excellent works of the students, and also promote the company to a certain extent. In addition, the studio can also provide an equal amount of the internship positions for the fresh graduates every year and establish an internship base to provide students with advice and assistance during the internship. Around the project, students use the professional theory of fashion design to carry out practical activities, and the project practical activities promote students' understanding of professional theory and improve students' ability to use professional theory to guide practice, so as to establish a channel between the theoretical teaching and practical teaching, and build a theoretical basis, and practice integrated teaching system. When we choose the practical teaching mode, we adhere to the integrated teaching method of production, learning and competition, and optimize and perfect the practical teaching system to obtain significant teaching effects.

3. CONCLUSIONS

Theoretical research on the training mode of fashion design talents under the background of the Internet + is studied in the paper. Theoretical teaching and enterprise practice are the key and basis for cultivating applied, compound and practical talents in fashion design. However, in specific practice, it is found that the traditional classroom teaching activities are

difficult to integrate with enterprise practice. Hence, in this paper, the suggestions are provided.

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Research on Energy Consumption Calculation Model of Prefabricated Building Envelope System Based on BIM Technology and 6G Technology

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Abstract: There are foreign software that can directly connect design data to factory equipment for automatic production. However, in China, due to the lack of unified data transmission standards, intelligent production management software and supporting automation Production equipment, resulting in the inability of design data to connect with industrial software-driven components for automated production. Most of the components are still produced manually by workers according to the design drawings. The use of intelligent design software, intelligent manufacturing management system and numerical control equipment can realize design data-driven factory automation production, improve the design and production efficiency of prefabricated buildings, reduce the dependence on labor, and reduce the cost of prefabricated buildings.

Keywords: Energy Consumption, Prefabricated Building, Envelope System, BIM Technology

1. INTRODUCTION

Buildings are classified according to the physical characteristics of basic materials, and materials can be divided into two types: heavy and light. *Concrete King is a typical heavy material, it is mostly used in composite materials together with other materials. The traditional concrete structure wall (as shown in Figure 2-3) cannot be well insulated, so it is necessary to set a layer of insulation layer or decorative layer on the outside of the wall, and the construction procedure is complicated at this time, and the construction time will be very long. On the basis of the exterior design of the No. 1 office building model, its size is calculated and produced at a scale of 1:10. According to the building construction drawings 16G101-1, 16G101-2, 16G101-3, concrete structure design specifications and construction engineering construction specifications, etc. [1-7].

In the construction of prefabricated buildings, the building components and accessories are uniformly produced by the factory equipment, and then the quality inspection is completed within the production enterprise to determine whether the products have quality problems and whether the specifications meet the construction standards, and then use professional transportation equipment to transport the building components and The accessories are transported to the construction site, and various components and accessories are assembled by professional construction personnel, and finally put into use. Today's society is a technology-based society. As technologies such as big data and artificial intelligence become more mature, more and more industries begin to combine high-tech technologies. Building information technology (BIM technology) has the advantages of visualization, integration, parameterization, etc., and has gradually replaced traditional CAD technology, because it can be applied in different stages of assembly projects. [7-14].

The most important thing is that in some product design processes, there are many problems that are non-quantitative, not based on mathematical formulas or mathematical models, but need to rely on the designer's own practical experience to

think and judge. In the entire life cycle of the product, the design plan plays the most critical role. The quality of the designer's plan will determine the quality of the final product packaging design plan. Packaging is a product of the development of human civilization. It is integrated into a variety of disciplines. It contains, protects and stores products, and conveys content information to consumers. It needs to have both aesthetics and technology. In today's fierce business environment, packaging designers face not only understanding packaging appearance and technology, but also understanding the needs of society, people's requirements and customer wishes. In the design process of traditional packaging products, designers formulate design concepts, draw sketches, and finally use computers to draw out the effect drawings of the packaging products. Designers use several packaging effect drawings to communicate with customers, listen to customer requirements, and then modify the design. Scheme until the completion of the finished packaging [15-21].

CAD drawing design and revit modeling of Office Building No. 1 are carried out. The total length of the office building is 126.5cm, the total width is 54cm, and the height is 15cm. The digital technology applied in the design stage of prefabricated buildings is mainly based on BIM technology, which is widely used in the detailed design stage of prefabricated components, mainly including prefabricated component scheme design, prefabrication rate statistics, prefabricated component reinforcement, collision checking and drawing output, etc. ; The production stage is limited by the low intelligence of domestic equipment, the high price of foreign equipment, and few applications, resulting in a low degree of application of digital technology in production at this stage, and the production of components in most factories is based on manual production scheduling combined with manual production and processing. the main way. After the designer completes part of the design work based on BIM technology, it is transmitted to the PC factory through the BIM cloud platform sharing method. The designer and the factory share a set of BIM models, which can be designed and delivered at any time [22-24].

2. THE PROPOSED METHODOLOGY

2.1 The Discussion of BIM

The factory uses automated disassembly tool software to disassemble the BIM model into single buildings, floors, and areas, until it is finally disassembled into a component-based BIM model. The BIM unit model outputs the manufacturing drawing according to the drawing template parameters, and provides basic data for the subsequent production scheduling task list, manufacturing plan, steel bar cutting and image progress.

For prefabricated buildings, the walls and maintenance materials are generally combined in the factory in advance, and then the load-bearing units are assembled on the construction site through components to organically combine building maintenance and thermal insulation materials.

2.2 The Discussion of 6G

Compared with the traditional construction mode, prefabricated buildings have higher construction efficiency, can complete construction tasks quickly, and will not cause resource waste and environmental pollution problems during construction, and have broad application prospects. Prefabricated buildings and BIM technology are the products of the construction industry advancing with the times. Both can improve the construction efficiency of buildings, and the application of BIM technology in prefabricated buildings can give full play to the role of both.

Compared with traditional buildings, prefabricated buildings have more in-depth design links, which play a link between design and component production. Traditional construction drawings only contain information at the design stage, without the disassembly and specific dimensions of some relevant components, and component factories cannot use them. Directly direct production. With the continuous improvement of people's living standards in our country, the concept of environmental protection has gradually gained popularity, and the weight value of each element relative to the top index of the control layer can be obtained by using \bar{w} , that is, the weight value of the three-level indicator's influence on the decision goal. Although the ANP solution process is relatively cumbersome. Due to the superior environmental performance of prefabricated buildings, this kind of building structure system has received more and more attention, and my country has also issued corresponding rules and regulations to standardize the construction links and acceptance standards of prefabricated buildings, which makes prefabricated buildings. The scope of influence is growing. BIM technology can reduce the modeling time of designers, whether it is to change the plane model to a three-dimensional model, or to provide previous relevant information about such buildings, it can reduce the work pressure of designers. The in-depth design of prefabricated components is a key link in the implementation of industrialized residences, and it is also the most concentrated embodiment of the superiority of industrialized residences over traditional residences, which integrates different professional needs. In the process of prefabricated building design, the frame structure system design work and the shear wall structure system design work should be done well.

2.3 The Energy Consumption Calculation Model of Prefabricated Building Maintenance System

The combination of GIS and BIM can create a new work platform to solve problems at the city level. When using BIM+GIS technology in architectural design, related geometric data can be separated, which realizes the combination of effective information in architectural design. This is also the most fundamental reason why the BIM+GIS management system can be established. BIM+AR (augmented reality technology) can make the project better show to the constructors and managers during the construction phase, so that they can more intuitively understand the feasibility of project implementation.

AR technology can realize the visualization of architectural details, facilitate management to a certain extent, eliminate potential safety hazards in the course of the project, and greatly reduce the construction period. The system prepares the manufacturing plan according to the general scheduling parameters, structure list data and manufacturing change plan, determines the specific manufacturing date and completion time node of each component, and finally forms the scheduling task list after manual verification, and finally pushes the data to the workshop team. Person's mobile device.

Compared with fully prefabricated buildings, some of the structures involved in the design and construction of semi-prefabricated buildings are uniformly manufactured by the factory, and the other part needs to be constructed on site at the construction site, which is directly constructed by the construction site.

3. CONCLUSIONS

The actual situation of the construction site optimizes the construction process, so it is more adaptable than fully prefabricated buildings. There are some differences between the design of a construction project and the actual operation. For example, some structural components may conflict with the layout of the line in the actual operation. After such problems occurred in the past, the designers and the construction parties conducted research and discussion. The in-depth design of the project needs to be completed by multiple majors such as architecture, structure, water and electricity, equipment, etc., and the same major also requires the participation of multiple designers.

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Comprehensive Application Analysis of BIM Technology in the Process of Construction Engineering

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Abstract:Comprehensive application analysis of BIM technology in the process of construction engineering is the focus of this manuscript. The building parameter model based on BIM technology can dynamically simulate and demonstrate the construction site, and managers can intuitively observe the changes of various details and parameters during the general dynamic model demonstration process. Hence, the proper usage will be essential. Entering the information and Internet era, the application of BIM technology in project construction quality will continue to deepen with the development of various high-tech, and then, the combination is also considered. Through the discussion, we find the suitable integration methods.

Keywords: Construction engineering; BIM technology; application analysis ; general process

1. INTRODUCTION

Building information technology has the advantages of the visualization, integration, and also parameterization, and has gradually replaced traditional CAD technology because it can be applied in different stages of prefabricated projects. In the assembled building design, prefabrication and also assembly construction, the parameters need to be coordinated and the construction plan needs to be optimized by adjusting the BIM model. Therefore, it is said that the characteristics of assembly building and BIM technology are very suitable, so the active application of building information modeling technology in modern assembly building.

In order to realize the standardized and orderly management of construction projects, the in-depth optimization design of project construction should be then combined with the application of general BIM technology in engineering. The application of BIM technology in the construction industry reflects the further development of the informatization of production activities in the construction industry through the rational study and application of BIM technology.

Employees can optimize the prefabricated components more efficiently and also scientifically, and improve the quality of prefabricated component construction projects. Such problems can be largely prevented by improving information exchange and sharing in assembly engineering through BIM technology. For example, employees can share basic 3D models of BIM technology in different work departments to further provide developers, builders and also managers with more timely data support. Compared with traditional buildings, prefabricated buildings have more in-depth design links, which play a link between design and component production.

Traditional construction drawings only contain information in the design stage, without the disassembly and specific dimensions of related components, and component factories cannot use other components. To directly guide production, it is necessary to further deepen the design of the construction drawings to meet the requirements of guiding production and on-site construction. Therefore, in the actual construction process, the construction construction machinery must use BIM technology as the core data to establish a 3D model that

repair the basic situation and problems of the construction site, investigate and analyze the different construction process and link of possible problems and factors, according to the model and specific parameters According to the model and specific parameters, find out the error between the design and actual construction, and in the figure 1, BIM parts are demonstrated.



Figure. 1 The BIM Parts Demonstration

2. THE PROPOSED METHODOLOGY

2.1 The BIM Technology Principles

BIM technology has been well widely used in our country's construction industry, especially in many core aspects such as structure, architecture, hydropower, and also comprehensive architecture design. The main features of the BIM technology, which is also the general most important features of the BIM technology include visualization, coordination, simulation, optimization, and mapability.

The most important features of the BIM technology include visualization, coordination, simulation, optimization, and also mapability. The BIM applications can be studied from the list of the core aspects.

- (1) Based on the BIM database, engineering modeling, project progress analysis, engineering material calculation and also engineering project cost management can be carried out at any time.
- (2) Convert the general previous design drawings from a two-dimensional information model to a core three-dimensional visualization model, providing designers with convenient working conditions, allowing them to find design defects in a short time, and then take effective measures to improve them.
- (3) During the construction process, it is then possible to fully analyze the engineering geological conditions in different

periods and the causes of their formation, and develop unique architectural solutions for various engineering and geological conditions, which can then greatly improve the core work efficiency and also design quality of prefabricated buildings, which is very important. We can use the BIM technology to analyze relevant problems, accident causes and possible negative impacts, for the development of targeted preventive control plans that can be implemented more effectively which will help reduce the possibility of various security threats and their possible negative impacts.

Using BIM technology in the construction process can then directly control the construction of the main nodes of the project through the three-dimensional model, improve the rationality and efficiency of on-site construction equipment and technology use, and reduce the risk of errors.

2.2 The BIM Technology in the Process of Construction Engineering

The building parameter model based on BIM technology can dynamically simulate and demonstrate the construction site, and managers can intuitively observe the changes of various details and parameters during the general dynamic model demonstration process. Construction safety construction management strategy not only pays attention to the general construction of the safety management system, but also pays attention to safety education, which can not only provide the effective basis for construction safety management, but also improve the safety awareness of construction personnel.

Then, we provide listed aspects.

(1) The periodicity of engineering projects and the complexity of the construction environment lead to many variable factors. Operators often change their working environments, and the mobility of the construction projects and construction teams requires project organization and management to be highly adaptable and flexible for safe production.

(2) At present, cost overruns in construction are mostly caused by inadequate management of other links, such as increased costs due to safety accidents.

(3) "Green building" is a building management concept based on social harmony and also resource conservation. The construction unit should establish the awareness of green environmental protection, and then combine modern advanced technical means, summarize and also integrate the resource requirements of each stage of project construction, closely focus on the principle of sustainable resource utilization, and promote the gradual improvement of green management of the project construction projects.

We compare and analyze the planned construction period in the BIM model with the actual construction progress on site, and adjust the construction plan in time for any deviations. From the perspective of the management body, the traditional construction safety management by the special safety management personnel, there are great limitations, weakening as the main position of construction workers in construction safety management is weakened. To create a new paradigm of construction safety management with full participation.

To create a new paradigm of construction safety management with full participation, strengthen the general autonomous management role of construction workers in the construction safety management. To sum up, BIM technology has been widely promoted and applied in green building construction management, which solves many problems in green building

construction management and makes the implementation of green technology more feasible.

3. CONCLUSIONS

Comprehensive application analysis of BIM technology in the process of the construction engineering is the focus of this manuscript. The data information platform built based on BIM technology can not only model according to project parameters, but also classify and archive various information materials in the construction process, hence, this paper gives the novel ideas on the applications of the BIM technology that will help to construct the efficient scenarios.

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Exploration on Teaching Method of Art Design Basic Course

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Abstract:Exploration on teaching method of art design basic course is the main focus of this paper. Due to its special professional nature, the art design major needs to form a real "double-qualified" art design teacher team integrating production and education. Hence, the efficient guiding will be essential. The existing digital media art design professional assessment is often based on the theoretical knowledge assessment, which cannot well demonstrate the importance of professional practice. Then, this paper gives the novel suggestions.

Keywords: Art Design; Basic Course; Teaching Method; Exploration Methods; Educational Service

1. INTRODUCTION

Under normal circumstances, students majoring in art are more subjective, and different students have different learning methods and interests. Therefore, schools should adhere to the principle of "people-oriented, teaching students in accordance with their aptitude", fully consider the actual situation of the students, and also choose appropriate teaching methods in combination with students' personality characteristics to help students shape their unique characteristics. There are obvious differences between the major of digital media art design and traditional media communication majors, one of which is that the major of digital media art design needs to combine new media technology, so the background of the times has a great influence on it.

In the reform of the "three teachings" of art and design majors, how teachers can make students give full play to their own thinking advantages, fill up the logical shortcomings, broaden thinking ability, and cultivate innovative spirit has become the core of teaching reform. The existing digital media art design professional assessment is often based on the theoretical knowledge assessment, which cannot well demonstrate the importance of professional practice.

For example, more systematic noun structures and method implementation cases are used in professional teaching. Good practice teaching can encourage students to better apply the knowledge they have learned to practice, and also effectively integrate theory and practice.

Therefore, the school can carry out in-depth cooperation and exchanges with off-campus training institutions and training bases, which can improve students' practical skills, and at the same time provide students with more practice bases, thereby comprehensively improving students' hands-on ability. Then, in the figure 1, the art design sample is presented and in the following sections, the ideas will be further discussed.



Figure. 1 The Art Design Sample (Figure from: https://www.freepik.com/free-vector/doodle-element-graphic-ink-line-art-design-vector-set_20346228.htm)

2. THE PROPOSED METHODOLOGY

2.1 The Design Basic Course

Patterns are decorative patterns on a two-dimensional plane that summarize, summarize, improve, and also make them aesthetically pleasing, and can be applied to various items.

It is for the purpose of beautifying life, in line with the people's visual beauty, and can meet the needs of people's spiritual and cultural life. In the basic art course, the students' sketching ability is mainly cultivated and trained. According to the art design characteristics of different majors, different art basic training focuses are selected.

Sketch is the basis of artistic design modeling, and it is the main teaching content in the teaching process of the basic art courses. The essence of the art design profession is creation, and its professional characteristics require constant updating. At present, there are conceptual differences in the teaching work of art design majors in higher vocational colleges, and no consensus has been reached until now.

There is great variation and arbitrariness in teaching from faculty to faculty, within the same faculty, and even within the same faculty. In the foundation of modeling contains the sketching, and color, etc.; in the general design fundamentals include pattern, composition. The foundation of art and design is an organic whole as the courses are interrelated and interact with each other. This will help us to clear our minds, position ourselves decisively, clarify the courses are interrelated and

interact with each other. In the teaching, we focus on cultivating students to use the method of deconstruction and reorganization for second-degree creation. On the basis of appreciating classic design works, specific deconstruction and reorganization design works and design sketch works, specific analysis and explanation are given to let students combine them in their homework.

Grasping the techniques and characteristics of deconstructing creative sketches, and use the objective images to carry out innovative sketch training in the form of propositions.

We should be focused on listed aspects.

(1) Design majors cultivate a strong sense of responsibility, scientific and also rational spirit, leading aesthetic judgment, systematic professional knowledge, master corresponding design thinking, expression, communication and management skills, and then be able to engage in design research and development, promote professional development, and also undertake design as the education, related research work, self-employment ability.

(2) We should be focused on practicality, the so-called practicability refers to then highlighting students' training in performance methods and imagination during the entire teaching process. This part focuses on creative expressive sketch training, to cultivate students' innovative thinking and agile feeling, and at the same time guide students to research and try a variety of expressive techniques and techniques, enrich students' design vocabulary, and meet the requirements of different designs.

According to the above regulations, it can be seen that in the construction and development of this discipline, the Ministry of Education has mentioned in the theoretical teaching links of the general education part and the basic education part that art history, design history and aesthetics should be taught to improve students' humanistic awareness and art.

As the sample, in the figure 2, the sample is presented.

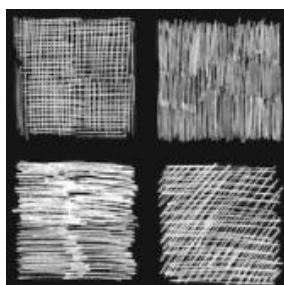


Figure. 2 Sketch Sample (<https://www.freepik.com/vectors/sketch>)

2.2 The Teaching Method of Art Design Basic Course

Art students are a group of students with unique professional characteristics among the students of the higher vocational colleges. They have distinct personality differences compared with ordinary higher vocational students in terms of special skills, ways of thinking, and hands-on ability.

Then, we provide the listed suggestions.

(1) In the context of "double highs", high-quality teachers are the foundation of teaching reform and the leader in cultivating talents with technical skills in art design in the new era. We must recognize the development background of the times and form corresponding professional development with needs and

goals in order to solve the various difficulties in the teaching of digital media art design from the root.

(2) Teachers majoring in environmental art design in colleges and universities should fully grasp the classroom teaching time to help cultivate students' comprehensive ability. At this stage, teachers in many schools in our country focus on the explanation of the theoretical knowledge, and typical cases will also be appropriately interspersed in teaching.

(3) As a teacher, we should not only have strong theoretical knowledge, but also have rich practical teaching experience. We must have the quality of "double professional". Under normal circumstances, teachers with the "double-qualified" quality can design scientific and reasonable teaching methods and measures according to the actual situation of students in daily teaching, which plays an important role in reducing the difficulty of classroom teaching.

3. CONCLUSION

This paper conducts the study on exploration on the teaching method of art design basic course. The vocational art design majors should actively explore the development and also application of new forms of teaching materials, dynamically adjust the skills of art design posts and infiltrate the theory and methods of art design. Hence, this paper gives the novel ideas of then creating the efficient model. In the future, some different applications will be applied.

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The Development, Dilemma and Countermeasures of College English Teaching Under the Influence of "Internet +"

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Abstract:The development, dilemma and countermeasures of college English teaching under the influence of "Internet +" is studied in this research. We believe that in order to stimulate students to think seriously, actively participate in classroom teaching activities, and activate the classroom atmosphere, teachers must carefully select task topics, organize teaching materials, design teaching situations with potential communicative value, and carry out teaching activities wittily and flexibly. The teachers should be good at providing students with the appropriate content for their actual English learning situation and guide them to use the Internet learning resources to learn, namely, the combination with the Internet. The Internet+ concept is combined for the analysis, and the details are discussed.

Keywords: Internet +, college English, English teaching, dilemma and countermeasures, development trend

1. INTRODUCTION

In the recent study, many of the related studies have provided us the ways of improving English classroom performance, such as, the "Education Informatization 2.0 Action Plan" emphasizes the innovation and development of the smart education, and builds a smart education environment and also the online learning space. "College English Teaching Guide" (2020 Edition) encourages teachers to make full use of online teaching platforms, integrate information technology and independent learning resources, and also cultivate students' independent learning ability through multiple channels.

In the current study, the latest trend is to combine the English education with the political education. The construction of the ideological and political "four-in-one" model of the college English courses refers to the integration of ideological and political elements into the teaching content design under the guidance of the national language policy, led by teachers, and through the interaction between students and students. The country requires that each discipline's unique education function be brought into play, and then the "Guidelines for the Ideological and Political Construction of College Curriculum" (2020) also clearly pointed out that the fundamental task of implementing the moral education of colleges and universities must be the integration of general value shaping, knowledge imparting and ability training.

As a whole, this strategic move affects and even determines the long-term stability of the country and the great cause of national rejuvenation. Hence, combining the latest technology will be also essential. In the context of new media, teachers can use rich teaching resources and teaching methods to carry out English teaching. Teachers can use new media to search a large number of English learning resources, so that students have a strong interest in exploring areas that they have never been involved in. There are a large number of learning resources on the Internet, and teachers should be good at providing students with appropriate content for their actual English learning situations. The teachers should be good at providing students with the appropriate content for their actual English learning situation and guide them to use the Internet learning resources to learn, namely, the combination with the Internet. In the figure 1, we show the Internet+ concept.



Figure. 1 The Demonstration of Internet + (Image from: <https://www.educba.com/uses-of-internet/>)

2. THE PROPOSED METHODOLOGY

2.1 The Internet and English Education

The characteristics of traditional college English teaching are that the teaching efficiency is low, teachers try their best to impart knowledge and show courseware but students lack of interest. Through the combination of the Internet, students will no longer passively accept learning, but can participate in complete classroom teaching activities, further strengthen the communication and connection between teachers and students, and help students better understand the teaching content.

The main contents of general teaching resources are teaching environment, materials, support system and so on. The deep integration of network technology and English teaching under the background of the Internet provides some more and rich teaching resources for the traditional English classroom-based teaching. Teachers are highly dependent on teaching resources in teaching. Blended teaching is a new teaching mode of traditional offline teaching and online teaching. Based on the teaching process, it can be seen that when conducting mixed teaching, teachers should not only use offline contact teaching, but also use online teaching.

Online teaching plays an auxiliary and supplementary role, and at the same time plays a leading and guiding role for teachers, using various teaching resources to then stimulate students' interest, supervise the learning process, and improve teaching quality. Compared with traditional English learning methods, the information-based learning mode can break the

time and space constraints of teaching and allows students to learn more flexibly. It can also enrich teaching resources and guide students to the teacher can design a flipped lesson.

When teaching blended English, teachers can design flipped lessons classroom. Teachers can then also upload their own teaching materials and recorded micro-videos to the network platform, allowing students to use the convenience of Internet technology to think and learn independently. The so-called offline learning does not mean that in the traditional teaching mode, teachers impart knowledge unilaterally and students passively accept it. Blended learning combines the advantages of online learning and classroom teaching combined with the advantages of classroom teaching, which facilitates teachers to integrate resources and improve students' motivation and creativity, and also facilitates teachers to keep the teachers to grasp students' learning dynamics, to evaluate their learning outcomes, and improve the students' learning dynamics and evaluate students' learning outcomes, so as to then improve the teaching mode and enhance teaching quality.

2.2 The Development, Dilemma and Countermeasures of College English Teaching under the Influence of "Internet +"

In the era of the new media, people can communicate across space and time with the help of the Internet. Therefore, teachers can use this feature of the Internet to provide students with opportunities to use the English language. Therefore, we have the following suggestions.

(1) Learning is not only the learning of language knowledge, but also the learning needed for the further comprehensive development of students' comprehensive ability. Therefore, according to the "output-oriented method" teaching concept, comprehensive English teaching in higher vocational colleges should be adjusted and optimized in terms of teacher-student relationship orientation, basic teaching goal setting, teaching program arrangement and teaching evaluation improvement.

(2) Teachers think about and implement teaching practices, regulate their teaching behaviors, and evaluate their teaching effectiveness from the educational philosophy of "all for the development of students". Teachers and students learn from each other, communicate with each other, influence each other, cooperate and coordinate with each other, teach and improve each other. Teachers and students learn from each other, communicate, influence, cooperate and coordinate with each other, teach each other, and improve together.

(3) Teachers should be good at providing each student with different English learning tasks and the English learning resources. In the process of class, the teacher discovers and counts the English learning characteristics of each student, and groups the students on this basis. The students in each group learn different content in order to help each other and make progress.

3. CONCLUSIONS

The development, dilemma and also countermeasures of the college English teaching under the influence of "Internet +" is studied in this research. Teachers should be aware of these differences in the teaching process, and carry out targeted teaching according to the learning characteristics of students, so as to help each student improve their English ability. In the future, applications will be considered.

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Discussion on the Coordinated Development of University Ideological and Political Education and Party-Building Work

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Abstract: Discussion on the coordinated development of university ideological and political education and party building work is studied in this paper. As engineers of the human soul, in the face of historical tasks in the new era, college teachers, especially professional course teachers, must advance with the times, improve moral education awareness, improve moral education ability, and strengthen teachers' ethics. In the new era, choosing a core forward-looking educational concept that keeps pace with the times has practical significance for shaping the correct ideological values of the college students. Then, we consider the combination with the party building to construct the efficient education.

Keywords: Party building work; ideological and political education; university; coordinated development; general discussion

1. INTRODUCTION

The 20th National Congress of the Communist Party of China clearly proposed to promote the great rejuvenation of the Chinese nation in an all-round way with the Chinese-style modernization, and made a profound interpretation of the Chinese-style modernization. Colleges and universities are the main positions for implementing the education policies of the party and the country. Only by improving the quality of the higher education can we run education that satisfies the people. Deeply integrating ideological and political education with the higher education can better implement the overall leadership of the party and highlight ideological and political education. The core position and also influence of political education in higher education, adhere to the party's theoretical line principles and policies.

Colleges and also universities are an important position to implement the establishment of the moral education, which is directly related to the future development of students. The ideological and political education is aimed at all teachers and students in colleges and universities, concentrating on the penetration of Marxist theoretical knowledge and cultivating the value identity of college students.

The ideological education is aimed at all teachers and students in colleges and universities. The party construction work is oriented to teachers and student members in colleges and universities.

In the figure 1, the Party Building Work (<https://www.aulicetyre.com/the-secretary-of-the-party-organization-of-the-citys-non-public-enterprises-visited-and-learned-the-party-building-work-of-hubei-aulice-tyre-co-ltd.html>) is presented.



Figure. 1 The Party Building Work (<https://www.aulicetyre.com/the-secretary-of-the-party-organization-of-the-citys-non-public-enterprises-visited-and-learned-the-party-building-work-of-hubei-aulice-tyre-co-ltd.html>)

2. THE PROPOSED METHODOLOGY

2.1 The General Ideas of Party Building Work

In the new era, choosing a core forward-looking educational concept that keeps pace with the times has practical significance for shaping the correct ideological values of the college students. For this reason, ideological and also political education at the university level should dig deep into the connotation of party spirit, and use the new concept of the party as the core of ideological and political education.

Guiding the direction and promoting the healthy growth and all-round development of college students. Under the Internet ideas, we consider the listed aspects.

(1) With the continuous development of Internet technology, "Internet +" has been integrated into all aspects of life. The core of "Internet + thinking" is co-construction and sharing, and the use of network platforms to achieve resource sharing is the basis for the establishment of the "Internet + Party Building" mode.

(2) Cultivating "Internet + thinking" can effectively improve the enthusiasm and initiative of villagers to participate in the

construction of network facilities such as party affairs and government affairs, promote the training of network technical talents, especially the training of "Internet + Party building" talents, and boost rural governance.

(3) The school should deeply integrate the latest theoretical achievements of the party in the party class and ideological and also political class education, and strengthen patriotism education, ideal and belief education, and excellent traditional Chinese culture education for college students.

2.2 The Discussion on the Coordinated Development of University Ideological and Political Education

The development of "curriculum ideological and political thinking" to "professional ideological and political thinking" responds to the call of The Times and the policy appeals of the Party and the state. According to the series of important speeches of General Secretary Xi Jinping, the major meetings held by the party and the country and also the important documents promulgated, the ideological and political policy system of colleges and universities and their development context. In general, the research on the ideological and political history of the curriculum has gradually increased, and the historical logic has gradually become clear; the theoretical research has been carried out from multiple perspectives, and the theoretical logic of the ideological and political theory of the curriculum has initially formed.

However, the general existing research has not systematically revealed the historical evolution route, stage characteristics, and development trends of curriculum ideology and politics, nor has it systematically constructed the theoretical system of curriculum ideology and politics.

Hence, we have the listed focuses.

(1) The evolution process is gradually becoming clear. Most of the existing research explores the evolution route from subject moral education to curriculum ideology and politics, from ideological and political courses to curriculum ideology and politics, and from the invisible ideology and politics to curriculum ideology and politics. Some studies also explore the evolution process of curriculum ideology and politics. The research starts from the focus of curriculum ideological and political research and the perspective of paradigm changes, and clarifies its evolution trajectory.

(2) The development of ideological and political courses in colleges and universities is the implementation of a series of new requirements and new theories of General Secretary Xi Jinping. It is also the construction of a three-full education pattern in the new era of the general socialism with Chinese characteristics. The ideological and political work system is integrated into the talent training system to comprehensively improve talent training.

(3) The teaching evaluation of ideological and political courses is an important part of the overall evaluation system of ideological and political work in colleges and universities. The above-mentioned policies formulated by the state and relevant departments have put forward specific requirements for the construction of the evaluation index system of the ideological and political courses in colleges and universities from different perspectives.

3. CONCLUSIONS

Discussion on the coordinated development of the university ideological and political education and party building work is studied in this paper. In the study of curriculum ideology and politics, there are not only those from the perspective of "construction", but also those from the perspectives of "implementation" and "evaluation". The three together constitute the research framework of the institutional mechanism of curriculum ideology and politics. General Secretary Xi Jinping emphasized at the National Education Conference that building morality and cultivating people should be integrated into all aspects of ideological and moral education, cultural knowledge education, and social practice education. Hence, we combine the mentioned issues with the party building and in the future, the discussions will be in further.

4. ACKNOWLEDGEMENT

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Analysis of the Application of Video Post-Production in Film and Television Advertising

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Abstract: Analysis of the application of video post-production in film and television advertising is studied in the paper. On the basis of improving the authenticity and quality of virtual content, the new production process of virtual production technology also allows the main creative team to feel the real shooting scene throughout the shooting process. Film and television advertising is a very important part of the advertising industry, with the characteristics of general good communication effect and wide range of the communication, which is of the great significance to the development of the advertising industry. Hence, this paper gives the novel ideas on the applications of the video post-production in film and television advertising.

Keywords: Television advertising; application; video post-production; film and television

1. INTRODUCTION

Fascinating image expression and impressive visual spectacle have been the goals pursued by many creators for a long time, no matter in movies or film and television advertisements.

Film and television advertising is a very important part of the advertising industry, with the characteristics of general good communication effect and wide range of the communication, which is of the great significance to the development of the advertising industry. Whether it's the core movie or a film commercial, when it comes to surreal scenes or no or no on-set locations, the creators can only realize their ideas through the traditional green screen/blue screen keying techniques, although can be done through the creative elaboration, design drawings, atmosphere maps, scene previews, etc. The content can be produced by dovetailing the various departments. We consider the following focuses.

(1) Considering factors such as China's large population and large cultural differences, film and television advertising is a brand communication method and brand building method with the relatively high acceptance and also relatively good communication effects.

(2) For communication of film and television advertisements, in order to attract the attention of the audience, it is possible to assume artistic images in the way of expression, exaggerate or distort the real image, and show its state that cannot be shown in reality.

(3) Film and television advertisements not only have two-dimensional plane visual elements, that is, pictures, colors and texts, but also have three-dimensional dynamic characteristics, which are easy to attract attention and deepen the impression.

It is impossible to use all real scenes in TV video production. In order to create visual effects that can attract the audience, it is necessary to create scenes that cannot be realized through shooting. At present, the development prospects of video post-production are good, and the market demand for editors is very large, but this also involves different fields of video post-editing, and different types of video production, there are also obvious gaps in the ability and requirements of editors. In the figure 1, the sample is defined.



Figure. 1 The Film and Television Advertising (URL: <https://entertainment.howstuffworks.com/how-does-tv-commercial-production-work.htm>)

2. THE PROPOSED METHODOLOGY

2.1 The Video Post-production Principles

The end of video shooting does not mean that the production is complete. On the contrary, editing is very necessary to achieve satisfactory video quality.

The key technologies are:

(1) In the video post-production process, format conversion is a very important step. Its technical principle is to convert specific formats through format-specific encoding. Currently, many players support this function.

(2) Enhancement color performance in the video, the overall color grading mainly adjusts the video screen adjustment, including video screen saturation, brightness, etc.

(3) Filters are also an important means of color adjustment in video post-production, such as using filters to simulate the visual effects of film images, etc., which can give people a better viewing experience.

Generally speaking, the video editing needs to be processed according to its style type, so as to achieve the expected effect. The most common way is to express the time span through long shots, but this often increases the cost. Therefore, it can be cut for a certain shot, and into different stages. At the same time, in the partition of the hard disk, it is best to choose a larger hard disk partition as the file storage disk. If possible, it is best to use a single hard disk to collect.

If conditions do not permit, it is also best to use a dedicated partition for video capture.

2.2 The Video Post-production in Film and Television Advertising

Media convergence has brought new business areas to film and television advertising, promoted the integration of product content and the expansion of communication channels, and advertisers at all levels have more choices. For a long time, the audience's requirement for advertising communication is that the information itself must be true and objective, and visual image information can bring more real feelings to the audience. In addition, the visual image can also make the audience perceive the disseminated information more vividly and concretely, which is not only easier to understand but also makes the audience remember it. The new model also breaks the mindset of the post-production department to produce, adjust and improve according to the filming materials, but to create a perfect digital asset system before the shooting starts.

Although virtual production technology can well realize the shooting of surreal scenes relatively easily, efficiently and with low budget, for the film and television industry, such films are only a part of it after all. To sum up, any objective thing that exists in reality has an image, and the method of using objectively existing images as symbols has been widely used in the information, content and dissemination of film and television advertisements.

3. CONCLUSION AND SUMMARY

Analysis of the application of video post-production in film and television advertising is studied in the paper. When the visual image is subjectively certified as a symbol and used, it can greatly help the audience understand the objective things spread in film and television advertisements. Then, this paper gives the novel ideas for constructing the efficient film and television advertising.

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English-Chinese Corpus Collection and Translation Wisdom Algorithm Implementation Based on Ajax+jQuery

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Abstract: This paper firstly introduces the discussion of "representativeness" in the construction of translation corpus abroad. Jie Cao pointed out that under the circumstance that the current theoretical research is still very familiar, the construction of the English-Chinese translation bank should be based on this. From the point of view of "translating and breaking the c-test", it takes the construction of "the core of eucalyptus" as the breakthrough point. This paper discusses the functional design of the college student information management system using the jQuery framework and AJAX technology and using the multi-layer architecture. It constructs a student-centered teaching corpus and applies it to teaching practice. Taking the comparative translation teaching method as the guiding ideology, it discusses the specific measures to apply the translation corpus in the process of college English translation teaching.

Keywords: English-Chinese Corpus Collection, Translation Wisdom Algorithm, Ajax, jQuery

1. INTRODUCTION

Teaching using computer network technology has become one of today's modern teaching methods, breaking the traditional teaching mode. Many school teaching, management models and teaching assessments cannot work normally without computer network technology [1]. Using computer network technology as a teaching mode will maximize educational resources, and the original class personnel will change [2].

In this process, the student data collected by various departments are not the same, and the accuracy of the data cannot be directly measured [3]. At the same time, the payment of tuition fees of students is also different every year, and the charging standards will change. Various tariff information such as loans will also change to avoid high temperature expansion causing scratches between the rotor and the stator [4].

However, the sudden disappearance or step drop of the braking torque caused by this increases the safety hazard of service braking, especially for cars driving on long-distance downhill roads [5]. Among them, bilingual and multilingual corpora can also be divided into parallel corpus and comparative corpus according to the organization of corpus. The corpora collected in the parallel corpus form a translation relationship with each other, and are mostly used in bilingual dictionary compilation, teaching Chinese as a foreign language, machine translation and other researches [6]. Extensive collection and arrangement of English-Chinese/Chinese-English bilingual materials related to historical and cultural tourism resources in Luoyang area to build the wisdom of Luoyang area the tourism English-Chinese/Chinese-English bilingual corpus is applied to the scenic spot information intelligent question answering system and the automatic simultaneous interpretation English-

Chinese/Chinese-English bilingual manual online service system [7].

The method of dialectical language and language collection library imposed on the emerging disciplines and research sections of the development of cake balls in the late 1950s [8]. Some people call it structuralism and glaze functionalism. Huan's Brick Code" (Gu Muxiao 1998. 1). The system uses ASP. NET technology, C# language and SQL Server database have been developed. In the development process, in order to improve system performance, the popular jQuery framework and asynchronous development technology AJAX are adopted [9]. At the same time, for the follow-up improvement and expansion of the system, the practical application ability of the language is progressing slowly, and due to the lack of internship opportunities in the practice base, the demand for practical talents is far from the enterprise's demand for practical talents after entering the workplace [10].

It can be seen that in order to adapt to social development and meet the needs of the society for Korean application-oriented talents, the three-tier architecture technology and Ajax technology are studied, and the system architecture of the target system is based on the system design principle [11]. Design of functional modules and overall system design, and at the same time give the design of the online examination platform optimized by Ajax technology. From the late 1990s to the beginning of the 21st century, my country's corpus linguistics has developed vigorously, and the development, construction and application of corpora have entered a period of prosperous development [12].

Especially in modern Chinese, dictionary compilation, teaching Chinese as a foreign language and research on Chinese history have been more and more applications [13]. Only by constructing a bilingual corpus of smart tourism and applying it to the corpus-based machine translation and the

intelligent question answering system of scenic spot information can it be beneficial to improve the communication and inquiry of foreign tourists in tourism activities, thereby enhancing the international reception capacity of tourism enterprises, and for the construction of International smart tourist attractions provide strong support. Some scholars have done some research in this regard [14].

ASUSTOR's master's thesis "Research on Talent Cultivation Model of Independent Colleges in Chinese Universities" defines the talent cultivation mode of independent colleges and introduces relevant theories in detail [15], and then investigates and analyzes the talent cultivation situation of some independent colleges. Corpus as an auxiliary tool used in language teaching is an emerging research field in applied linguistics [16]. The corpus collects many real language materials, and the use of advanced retrieval software is of great benefit to translation teaching, making it possible to quickly analyze a huge amount of language data. So that translation researchers can make full use of the parallel corpus observation and observation of English and Chinese bilinguals [17]. Describing the language of translation, mastering the law of transformation between English and Chinese in the process of translation, and understanding the principles of the transformation of some specific words or structures are translation studies [18].

2. THE PROPOSED METHODOLOGY

2.1 The Ajax+JQUERY

Data access layer: also known as persistence layer, mainly responsible for database access, that is, to realize the operations of select, insert, update, and delete on the data table. ASP.NET's code execution method is compiled, different from interpreted. Run the program based on the common language on the server, the program code is compiled when the server runs for the first time, and the system directly executes the compiled program, which is much more efficient.

It greatly simplifies the operation of JavaScript developers and is widely used in current programming technology. In this system, interface control, dynamic menu, form validation, and data manipulation with AJAX are completed. When writing Web applications based on AJAX technology, it is a particularly useful ability to manipulate DOM tree nodes through JavaScript. Compared with traditional web applications, we only need to change some nodes in the DOM tree through JavaScript programming. The multi-layer architecture can solve the problems of the above three-layer architecture, and is also conducive to standardization and reuse of various logics. In a nutshell, a multi-layered design can be achieved: decentralized attention, loose coupling, logic reuse, standard definition. The biggest benefit of a multi-tier architecture is loose coupling.

2.2 The English-Chinese Corpus Collection and Translation

The software used in this corpus collection is Nutch, a web search engine that has just been born with open source code. Compared to those commercial search engines, Nutch as an open source search engine will be more transparent, so the results are more trustworthy. The travel corpus is not only limited in the field, but also severely limited by the region. The tourism corpus of one region is usually quite different from the tourism corpus of another region.

The English-Chinese/Chinese-English bilingual tourism corpus collected in this study mainly includes: (1) English-Chinese/Chinese-English bilingual documents about the tourism resources of Luoyang area published in China. Basic theories of listening, speaking, reading, writing and translation of Korean and the basic skills of mastering the practical application of Korean; preliminary ability to analyze and solve practical problems related to Korean. The bilingual parallel corpus mainly comes from the real questions and simulated questions of half-sentence translation for CET 4 and 6. It allows students to learn independently and plays a strong guiding role in meeting the CET 4 and 6 exams.

After all, the classroom time for college English teaching is limited, and it is very important for teachers to guide students to conduct effective autonomous learning outside the classroom during the teaching process. The translation of the same translator and the original written by the translator in the target language are extracted through the joint retrieval function of multiple works. and ten-day-length statistics to compare vocabulary range, vocabulary changes, and sentence length. After the system operating environment is installed, Nutch can be installed and debugged. There are two types of crawler components that come with Nutch, one is for crawling a few websites, using the crawl command: the other is for crawling the entire Internet.

2.3 The Smart Algorithm for English-Chinese Corpus Translation Based on Ajax+JQUERY

Ajax+JQUERY-based translation wisdom algorithm for English-Chinese corpus Specification", the alignment unit is sentence level. The core of the English-Chinese/Chinese-English bilingual manual online service system supporting automatic simultaneous interpretation is automatic machine translation and speech recognition technology. The automatic speech recognizer and speech synthesizer in English-Chinese/Chinese-English bilingual speech recognition technology have developed quite maturely and have been widely used.

In the basic stage (freshman, sophomore), in addition to the practical part in the classroom, many practical teaching activities are arranged, such as: pronunciation competition, speech competition, calligraphy competition, Korean simultaneous interpretation, Korean broadcast, self-recommendation, Korean Cultural Week, etc. Distance iconicity refers to the distance between linguistic symbols and the distance between the conceptual components to be expressed. That is to say, the separation distance between language symbols often directly reflects the conceptual distance in the human brain. A sentence is the basic unit of translation, and a word is the smallest structural unit that expresses the meaning of a sentence. Therefore, translation is inseparable from the precise grasp of the meaning of words. Since translation involves at least two languages, and one of them is likely to be the translator's second language, it is particularly important to grasp the semantic prosody of the target language or source language vocabulary as the second language.

This time, 1728 webpages were crawled, with a capacity of 18.2MB and about 15,000 sentence pairs. They were saved in plain text files, namely txt format, and UTF-8 encoding was used. The encoding takes one byte for one letter and two characters for one Chinese character. It is more economical and applicable to texts mixed in English and Chinese. Use the

"Check Paragraph Alignment" function provided by the "Smart Travel English-Chinese/Chinese-English Parallel Corpus Sentence Alignment Processing Platform" to check whether paragraph alignment can be achieved before parallel corpus sentence alignment processing. The processing platform is executing the "Check Paragraph Alignment" function.

3. CONCLUSIONS

Design and implementation of online standardized test platform based on Ajax+jQuery, based on ASP.NET, jQuery, AJAX technology, using B/S three-tier structure system, the development platform is Microsoft's VS2010, and the development language is C#, JavaScript, etc. A parallel translation corpus is proposed for translation research, translation practice, translation evaluation, translation teaching and automatic translation, and fully realize the role of parallel translation corpora in learning, practice and other fields.

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Intelligent System of Art Design Based on Cloud Sharing Internet New Media System

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Abstract:Through the real-time template conversion mechanism, the system will automatically collect and filter the Internet site content in a way that conforms to the user experience of the TV screen. Virtualization and cloud computing technology take Internet technology as the main operating platform and are closely linked with Internet technology in the development. It focuses on the construction strategy of higher art and design education system in the new media era, covering the current situation of art and design education system, information technology and art design In-depth integration, development of each student's own advantages and specialties, broadening the contact surface of new media art design with the outside world, so that the discipline develops towards a richer and more diversified trend.

Keywords: Intelligent System, Art Design, Cloud Sharing, Internet New Media System

1. INTRODUCTION

With the development of the pilot construction work, some school has realized the transformation from the purchase of single hardware equipment to the construction of the overall comprehensive application of educational informatization [1]. In this process, some experience and lessons have been accumulated and precipitated. It has also achieved remarkable results. The integration of the three networks refers to the mutual integration of the telecommunication network, the radio and television network and the Internet [2]. The network layer can realize interconnection and form seamless coverage. The application layer tends to use a unified IP protocol, and the business layer penetrates and crosses each other. Provide diversified, multimedia, and personalized services [3].

Committed to creating a production management platform that can quickly record live TV signals as a program source and generate on-demand video and audio programs used by new media such as websites, mobile TV [4], and IPTV. At present, network and new media technologies are booming, cloud computing, physical new technologies such as networking, mobile internet, big data, and smart city technologies are emerging one after another. But people really feel that it is still a specific new media application (APP). It is these applications that have profoundly changed the way people live [5].

Since the invention of the computer, human civilization has developed by leaps and bounds. In the past half century, the development of information technology has brought tremendous changes to the current way of human life and work, especially in all aspects of production score [6]. The application of a large number of Internet technologies has greatly promoted the current work and lifestyle of people. It is necessary to analyze the product form from an interdisciplinary perspective and perspective, such as functional settings, interaction design, user experience [7], touch points and other theories and methods. Only then can we have an overall grasp of the overall picture of health communication in the mobile medical era [8].

In their monograph "Smart Home System and Technology", Han Jianzhong et al. elaborated on the intelligent development of intelligent and home system design and furnishings

technology [9]; Chen Chengyu in his master's thesis "Research on Design and Construction of Smart Home" In this article, the method and related rules of smart home design and construction are proposed. With the rapid development of information technology and the arrival of the new media era, the traditional discipline division of art and design can no longer meet the requirements of the times. The latest subject classification catalog of the Ministry of Education as the art major disciplines have been re-divided [10].

In recent years, the term "crossover" has become more and more popular and popular in the design and art circles. The mixing of western and eastern cultures, the blending of business and art, and the interactive marketing between brands [11]. Various crossover phenomena appear in people's lives. And the "guiding opinions of the ministry of culture on strengthening the public welfare digital cultural service system" has made important arrangements for the construction of the public welfare digital cultural service system [12], and the construction of the digital cultural center has become a new service method for the cultural center. "The transformation is a concrete practice of triple play, which has reached the advanced level in the industry [13].

The cloud media TV Internet system is the integrated Internet site service of the radio and television network. After security filtering, it provides users with a safe, reliable, and green TV screen Internet experience [14]. Design and build a new media production management system for Sichuan TV Station. Through the production management system, the traditional the collection of live TV programs, after video editing and adding metadata information such as graphics and texts to traditional live TV program content [15]. At the same time, these various and massive applications also bring people into the quagmire of "information overload": every user needs to register a large number of new media application platform accounts, you need to fill in your personal information repeatedly, and you need to repeatedly publish your own personal articles or dynamic information on each site [16].

After entering the new century, the data center has become unprecedentedly important and complex, which has brought great constraints and challenges to the development and application of current information technology [17] and has led

to the prevention and management of various problems that are prone to occur in the development process. Here comes the perfect basis.

Disseminating and receiving health information is the initial function of new media health communication, and it is also the most basic function in the health communication system. As the most basic function, the publication of health information is still the mainstream content of the health communication of many contents [18].

2. THE PROPOSED METHODOLOGY

2.1 The Cloud Sharing Internet New Media System

The cloud media TV Internet system is the integrated Internet site service of the radio and television network. After security filtering, it provides users with a safe, reliable, and green TV screen Internet access experience, popularizing the use of the Internet, and creating a new generation of Internet surfing services. There is not only an urgent need for new media resource management, but also an urgent need for new media production process management.

At present, due to differences in workflow and personnel levels among various program groups, the quality of each program is also uneven. Under the cloud communication mode, new media applications can make full use of various resources (hardware resources, software resources and data resources) provided by third parties and can also use their own advantageous information resources in the form of cloud services for other applications to use.

All calculations use real-time remote network computing resources. Cloud computing is a comprehensive analysis of various data commonly used in computers and various resources commonly seen in people's eyes to ensure that computers can be strictly controlled at work. Now we usually access resources through the Internet. As these people who are most concerned about health become more attached to social networks, the TV Internet system uses Internet sites as a resource pool and uses the page data collection system and page conversion system to filter the Internet. The site content is matched to the corresponding TV screen template. The way of dissemination and reception of health information has also undergone a complete change.

This means that it is necessary to realize the compound dissemination of health information and improve the effect through product design. It can gather rich media resources from various terminals and various channels with an open WEB service architecture system and can rely on an automated video cloud computing system to realize a fast, efficient, and intelligent production process of content. The success of the App proves Users are in urgent need of new media information dissemination from professional institutions. The open content of an open platform includes open customer and product data, open functions and services, open application program interfaces and source code at three levels: open customer and product data mainly refers to providing Platform customer and product data are used by third parties to facilitate marketing services. Different virtualization technologies are carried out for different virtualization products. It reflects the good advantages in the application of virtual technology and the impact on various production fields.

2.2 The Art Design of New Media System

Virtualization is a process of interface encapsulation and standardization. In the process of application, the application methods and application measures are continuously improved and perfected, so as to ensure that the hardware platform and software technical measures can be accommodated in use and provide a good environment for the application of cloud computing. Stable operating environment. Health information as propaganda and education used to be the main dissemination content, but today, health information as big data has quietly been on par with it. This includes data from various medical platforms.

In Japan, the research focuses on large-scale virtual games and model libraries, and some research institutes even develop human virtual systems that can recognize expressions and gestures to automatically form models. The system is interconnected with the Internet through the Internet export switch dedicated to the radio and television network, which ensures the stability of the content acquisition of the entire system. At the same time, a firewall is used between the radio and television intranet and the Internet to ensure the security of the intranet. Then, the team of the teachers will make arrangements to ensure that the combination of each team is more optimized and efficient, and that each member of the team has clear characteristics. Students who are strong in creative ideas and comprehensive planning ability are the team leaders, and then cooperate with strong hands-on ability and video production and students with high ability work together to form a well-rounded group.

2.3 The Research on the Intelligent System of Art Design

The "clothing" in the living space can be understood as the design of the cloakroom and wardrobe. With the improvement of people's quality of life, the wardrobe still becomes an important part of the living room design. In particular, the use of the whole wardrobe has been popularized in developed countries. Another important feature of this course is that the scope of creation of assignments is quite broad. We will never limit students to a traditional "installation art", but guide students to think in different fields. There are many unexpected cross-border areas in the finished product of the job, such as the large-scale light interaction in the opening ceremony of the Asian games.

By embedding 3D virtual exhibition halls into major websites, netizens can more intuitively understand the layout and structure of the exhibition halls of physical art museums and avoid the constraints of unfavorable factors in physical art museums, such as noisy environment and lack of single resources. Immersion, interactivity, and conception are the biggest advantages and characteristics of 3D virtual art galleries, which completely solve some of the defects of physical art galleries. The curriculum structure mode of this school-year teaching management system is generally in the form of "basic courses + professional design courses + history courses". The course structure model emphasizes laying the foundation first, then building the framework, supplemented by the details of the body, and finally shaping. Especially in the art field of new media, which is a multi-disciplinary and multi-professional cross-integration, multi-intersection can be regarded as an essential feature of a new media discipline.

In this paper, the curriculum reform we have carried out is only a preliminary attempt, and its results and achievements still need time and practice to verify, as long as there are problems, we will adjust and improve. The main significance

of the 3D virtual art museum is the digital protection of art works, paperless green energy saving and environmental protection, the physical venue occupies a small area, and the global online sharing of art resources, etc. In terms of digital protection of art works, the materials used in traditional art works are due to oxidation. Japanese modern graphic design shows a tendency to emphasize both the modern design awareness and traditional cultural elements. On the one hand, the design contains strong Japanese local culture and strong national aesthetic characteristics; on the other hand, the presentation style is modern. We start by putting the computer into the state representing the superposition of all possible values of the first register.

3. CONCLUSIONS

The rapid development of the Internet has brought about profound changes in the way of information dissemination and gave birth to new cultural production and dissemination methods. The release of its own services is realized through web services, which are provided to third-party systems for access. Intelligent System of Art Design Based on Cloud Sharing Internet New Media System is the main focus of this study and in the future, the discussion will be done.

4. ACKNOWLEDGEMENT

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The Application of Virtual Learning Mode in the Design of Art Design Network Interaction Platform: Based on C++ Builder

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Abstract: A system development platform based on C++ BUILD is introduced in detail, and how to configure OpenCV in C++Builder environment is discussed. Finally, two application examples are given on this basis. After the analysis of new media's intervention in public art design, the interactive digital public art design and practice of new media public platform is explained in detail, from the practice of interactive digital public art design and Chinese painting in interactive digital public art design. The methods and methods of public art design are analyzed from the two aspects of reference and application significance. Based on the classification framework of research methods that combines hierarchical logic, process logic and the characteristics of this field, this paper analyzes the methods used in doctoral and master thesis in the field of virtual learning community research in my country with research methods.

Keywords: Virtual Learning Mode, Art Design Network, Interaction Platform, C++ Builder

1. INTRODUCTION

In the intelligent monitoring system of real-time data acquisition, due to the complexity of the industrial site, embedded systems are often used as the site monitoring host to perform data acquisition and control functions [1]. The processing of large amounts of historical data will become a problem. This makes it easier, faster and easier to port to other platforms. A provides a number of ready-made classes and a number of controls, using them to build applications is very simple [2].

With the advent of the information age, the computer network has become an important carrier for human beings to obtain information, spread culture, and exchange ideas [3]. The network interactive art design promoted by this is showing vigor and vitality. With the increasingly widespread use of digital image processing, disadvantages such as large amount of data [4], long processing time and slow speed have also emerged. Although the above problems have improved with the exponential increase in processor speed and memory capacity, they are still quite prominent [5].

Therefore, researchers continue to develop efficient image processing algorithms and image processing software packages. However, most teachers focus on the interpretation of the meaning of words in the teaching scene, and the analysis of style and style pays little attention to the part that expresses the rhythm and emotion of poetry [6]. The main reason is that poetry education in Taiwan generally focuses on poetic emotion. There are few people who cultivate love. Whether it is new media or public art, they all originated and developed abroad, and their research on foreign development is more advanced than in China [7]. From the conditions of the development of modern society in my country, we can know that due to the multi-dimensional development of new media, this paper makes a preliminary analysis on the application advantages and status quo of interaction design in the field of domestic environmental art design [8], and its development trend in this field. Forecasts are made in order to

promote the development of environmental art design in China.

A lot of results have also been achieved. Today, with the gradual popularization of handheld mobile devices and 3G networks in my country, the development of virtual learning communities has gained new opportunities [9]. In the future, the virtual learning community is expected to become a new stage for adult social learning and even people's lifelong learning. Because of its multi-task operation mode, good user interface and powerful database management functions, it has been widely used in the field of measurement and control [10]. Data exchange I4584J is a set of excellent numerical calculation, algorithm development, and system simulation software. It is characterized by its rich mathematical function library, optimized mathematical operation capabilities, powerful mathematical analysis and data visualization capabilities [11], and the applications it provides. Multiple toolboxes for various disciplines provide a variety of methods of interfacing with and other development languages [12].

Interaction Art Design on web-based is an interaction design based on network media. It is a new discipline focusing on user demands and focusing on interactive experience and aesthetic feeling [13]. This discipline is "dedicated to understanding and satisfying User expectations for using network products. The open source computer vision library OpenCV is developed by Intel's research laboratory in Russia. In order to consider the speed of calculation, most image processing software packages are written in C/C++ [14]. The integration of poetry and emotion art will help students to acquire the gentle and honest but not stupid poetry under the subtle influence and be able to understand the beautiful vocabulary of poetry. Learning and improving the ability of composition, word selection and word use, so that it will benefit for a lifetime, the culture will take root and the living water source of work and life [15].

my country can only combine its own advantages and use the integration and grafting with traditional cultural knowledge to improve the development level of public art in my country

under the new media environment. It has become a hot topic of research in this field [16]. After decades of development research, it can be said that it has achieved fruitful results. On the one hand, the diverse community model strengthens the collaboration and interaction of the learners in the virtual environment. On the other hand, through the analysis of various effect factors in community communication, to a certain extent, it promotes the in-depth development of virtual learning community [17].

2. THE PROPOSED METHODOLOGY

2.1 The C++ Builder

Through the operation of the "segment selection" item, the monitoring of the corresponding segment can be started and stopped. Psychologists have designed different information presentation forms based on the cognitive load theory and conducted related tests. They have found a series of cognitive load effects and put forward corresponding information resource design principles.

The data acquisition and control output part is mainly to control the input and output cards, with the timer to monitor the current system status in real time and control the operation of the system. The algorithm processing part mainly calls the control algorithm written by 345/46 through the interface with 345/46 to achieve "Reduce the complexity of algorithm processing". Firstly, the design elements of virtual learning community are extracted from the research perspective of learning environment, and then each element of community learning is designed separately. In the design process of learning activities, in order to obtain better learning Experience. While processing and deeply mining knowledge resources, the retrieval and query system provides users with convenient operation of boundaries and various choices by looking for the relationship between various data. Full utilization of resources. Using the OpenCV library can write concise and efficient codes to solve problems in digital image processing and computer vision programming, which not only reduces the difficulty of programmers developing programs, but also shortens the development cycle of related programs.

The integrated development environment of C++Builder 5 does not contain MSComm controls, which need to be imported from VB or VC. After starting C++Builder 5, the static library of OpenCV can be used directly for MSVC, but it cannot be used directly in the C++Builder environment and must be converted. `coff20mf` in the Bin directory of the C++Builder installation directory. `exe` file, can convert the static library of the MSVC into the static library of C++Builder class.

2.2 The Virtual Learning Mode

In the research of microservices in academic libraries, it has been confirmed that users' continuous use behavior is affected by user satisfaction, and user satisfaction will vary with the quality of microservices and microcontents in academic libraries. Among them, the creation of virtual items in the case requires According to the needs of bank communication language learning, it aims to provide learners with an immersive learning situation. The overall implementation idea is to use the 3D modeling tools provided by the platform with the corresponding models and graphics processing software. The clustering dimension aggregation mode has outstanding characteristics, and its extensiveness and freedom make it more suitable for the characteristics of users (occupation information, subject areas, usage habits, browsing preferences, etc.) and publishing scenarios, and the dynamic

and timely nature of digital knowledge tags reduces learning and usage costs and greatly improves user friendliness. And this kind of diversified artistic development situation has made art gradually "fly into the homes of ordinary people", and can be accepted by ordinary people, instead of being untouchable by people before, no matter it is in a certain corner of public places.

In the specific implementation of outdoor environmental art design, interactive experience installations and related services will also be added. It means that learners can freely express their opinions in the virtual learning space, and discuss, negotiate and reach consensus with other members; clear goals and rules mean that as an organization, it has its own clear learning goals and experience. Learners negotiate the established community rules. This feedback system may be a computer terminal, or it may be an infrared sensor or other related technical devices that can receive signals.

2.3 The Application in the Design of Art Design Network Interaction Platform

Primary and secondary, strong and weak are relative relationships. When people recognize objective objects, in addition to making judgments on cognitive goals based on their subjective will and previous experience, there are also phenomena that the visual perception environment and specific factors of cognitive goals intervene. , get the information that the individual needs to know or feel the changes made by the environment to the individual's entry. For example, the application of infrared induction voice control technology in the Kuanzhai Alley Cultural Exhibition Hall of the Republic of China in Chengdu is a positive attempt to this effect, and it has received good results.

It means that as a learning community, it has a clear organizational purpose and specific organizational rules; the fourth is interactivity, which means that the virtual learning community is dynamic, and the subject and subject, subject and object can fully interact with each other. The core effect is verified. The part mainly focuses on two dimensions, one is the problems and advantages of the community itself. To revise and improve the virtual learning community by surveying learners' satisfaction with use, aiming to build an optimized learning community to prepare for the subsequent community experience learning. The second is the verification of the learning effect of the learner. This intervention affects the perception and cognition of the cognitive subject of the strong and the weak, the primary and the secondary. In the network interactive art design, various navigation graphics and text are like the guidance system in the traffic environment.

Make online Chinese teaching no longer just a textbook that is directly displayed, but a realistic teaching environment platform that can listen, read, and write. The course is based on the independent learning model. It is hoped that the first-line teachers can learn Your own needs. When designing traditional public art, most of them are hand-made. Simply put, they use hand-painted methods to design and produce public art. Although this design method met the needs of the society at that time for public art to a certain extent.

3. CONCLUSIONS

Practice has proved that the use of C++Builder to obtain data in real time through the serial port is very effective. The application of C++Builder not only accelerates the development process of the system, but the interactive digital public art design based on the new media platform has not

been popularized in my country. The design of this kind of public art needs more high-tech support, and the threshold of art has begun to rise. . The 3D virtual learning community based on Second life can effectively solve the above problems. It broadens the inherent paradigm of the current research on the construction of virtual communities, and focuses on the presentation form and construction mode of the community, such as the transition from a two-dimensional flat interactive interface to a three-dimensional interactive scene in the presentation form.

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Design and QoS Optimization Model of Party Building Cloud Platform Based on FoRTAN

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Abstract: Using FounNPowerSTAIloNv4. o to develop a simulation program is the core focus of this paper. It has a good WINDows interface, which can intuitively and conveniently carry out a man-to-machine dialogue, which is convenient for simulation racing. Its application example shows that the program has universality and practicability. The informatization work of party building in colleges and universities can be carried out according to different situations: confidential work can be combined with the campus informatization platform; collaborative work between units can introduce third-party questionnaires and cloud collaboration documents to connect the data communication network with information. Intranet integration and unified deployment. With the growth of communication data volume, higher requirements are put forward for the quality of service of converged network QoS and the resource consumption of base stations and users.

Keywords: QoS Optimization Model, Word Party Building, Cloud Platform, FoRTAN

1. INTRODUCTION

With the development of communication network informatization construction year by year, mass production, marketing and other application systems have been extended to counties, business outlets and substations [1]. Due to the problems of unreasonable network structure and insufficient security in the existing data communication network and information intranet, health information cloud storage needs to support high concurrent access of a large number of medical services in the region, and ensuring storage QoS is an important basis for developing reliable medical services [2].

At the same time, the party building in colleges and universities has ushered in a new test. Adhering to the correct political direction and school-running direction [3], and accelerating the connotative development of various schools in the new era, the party building in colleges and universities assumes the first and most important role [4]. It is also crucial for cloud service providers to study cloud storage QoS guarantee, cloud storage must ensure that storage applications obtain the minimum level of read and write bandwidth or IOPS required by themselves [5].

Party members in coal enterprises have many daily production and safety tasks, and they do not have much energy to study the content of party building after completing their business work [6]. The identity of party members cannot be highlighted in the process of safety production, and they cannot play an exemplary role. From design to test, operation assessment, the cycle used is too long to meet the requirements of the international market for new products. In order to shorten the design cycle, collaborative design must be carried out to improve design methods [7]. Fortran is the world's earliest high-level computer programming language and is widely used in scientific and engineering computing. The Fortran language reflects the ability of enterprises to rapidly develop new products in a cooperative and integrated collaborative environment with its unique functions in numerical collaborative design [8].

Excitation system is an important part of synchronous generator. When the system is in normal operation, it can

provide adjustable excitation current to the generator to adjust the terminal voltage of the generator and the reactive power distribution between units running in parallel [9]. Visual software development tool based on F0rtm language and Ms-windows graphical user interface. MicmsonForlanPowerst'on combines the two to provide users with a powerful numerical computing capability HITurbine is a Fortran and c# mixed programming implementation of CFD/NHT [10] The software is mainly designed and developed for the numerical simulation of the internal flow field and heat transfer of aviation and ground gas turbines. Existing implementations such as Globus's MDS[11], Web service UDDI, WSDL and VEGA resource discovery architecture [12], these models complete resource discovery from different emphases, but less consideration for QoS. Seriously affect network security and robustness [13].

In order to solve the above problems, consider the integration and unified planning and deployment of the data communication network and the information intranet. With the explosive growth of the amount of communication data, the integration and interconnection between them has become an urgent problem to be solved [14]. Cloud platform technology can interconnect all heterogeneous networks with it by establishing a cloud platform. The goal of cloud storage is to provide users with an infrastructure with high scalability, reliability, security, speed and low cost, so that users can pay on demand way to obtain usage of storage resources. Traditional storage technologies have bottlenecks in storage capacity, performance and scalability [15]. Taking the online education platform as the fulcrum to promote education informatization, taking the China Education and Research Network (CERNET) as the basis, and using the large-scale open course MOOCs (MOOCs) as the basis) as the core, and strive to make online education a highland for the development of education informatization [16].

Coal enterprise organizations are scattered, the party building work is difficult to carry out, and the process control is not strong. Many party building activities are mere formalities, and party members and the masses do not understand the purpose of the activities. These systems have their own

advantages and disadvantages, but through continuous improvement [17], they have adapted to their environment. On the basis of analyzing the shortcomings of the above systems and drawing on their advantages, the author introduces cloud computing technology into the field of collaborative design, and proposes and implements a collaborative design system scheme based on the manufacturing cloud platform [18].

2. THE PROPOSED METHODOLOGY

2.1 The ForTRAN

In order to realize the collaborative design based on the manufacturing cloud platform, we must first discover various collaborative design cloud services stored in the manufacturing cloud platform. Typically, services are described using WSDL so that service requesters can discover and access the service. For the complexity, particularity and expansibility of the resources of the manufacturing cloud platform. By analyzing the content of the LandMark software horizon file, its data composition is actually X, y plane coordinates plus. Z value (horizontal depth).

Therefore, in the face of a large number of formation pinch-out situations. Although, in the dynamic simulation of the system, the PSS/E standard model library provides many excitation system models such as IEEE1-5, IEEE1-4, SCRX and SEXS, and constantly improves the model library. , but does not include all the excitation systems that have been practically applied. Using the methods of Monte Carlo random sampling, sweeping fault trees and interval statistics, the system reliability index and the estimated value of the importance of basic components can be obtained. Although hybrid programming presents additional challenges for programmers, the value brought by the technology far outweighs the hassles. For the CFD/NHT software system, due to its historical reasons and computing requirements, many mature source codes may be written in Fortran. The collaborative design system under the manufacturing cloud platform has a very complex cloud workflow. The cloud workflow representation model of the hybrid Petri net lays the foundation for the realization of the collaborative design system based on the manufacturing cloud platform.

2.2 The Party Building Cloud Platform Design

=After the successful convening of the 19th National Congress of the Communist Party of China, at a new historical starting point, major colleges and universities are closely following the construction of "double first-class", taking discipline construction as the top priority of college work, and forging ahead with the connotative development of higher education as the main purpose. The business volume of various units and departments of colleges and universities will inevitably increase sharply. The collaborative design system based on the manufacturing cloud platform relies on a large number of cloud services to transparently provide users with safe, low-cost, on-demand application services through aggregation. It is based on cloud computing and integrates advanced manufacturing technology, Internet of Things technology, service-oriented technology and intelligent science and technology. The architecture of the platform is divided into presentation layer, functional layer and data access layer. The presentation layer interacts directly with users, and users browse through the server implements the access function of the application by means of the Internet, and the functional layer implements all functional operations and logical operations of the user.

The portal website includes three display pages at the company party committee, mine party committee and branch level, which comprehensively display the party building publicity and work display of the company party committee, mine party committee and branch. The company party committee party building information platform displays the company's party building work. Co-design has the characteristics of parallelism, group, different places and collaboration. Due to the complex information interaction among different tasks of product design, they depend on or restrict each other. In order to organize collaborative design scientifically and effectively and ensure the execution efficiency of collaborative design tasks, it is necessary to describe the design tasks reasonably.

2.3 The Party Building Cloud Platform Design and Qos Optimization Model

Traditional party building information propaganda is mainly based on newspapers, TV, websites and other media, which cannot meet the requirements of universality, mobility and immediacy of information exchange. In order to adapt to the new situation under the new situation. The network between cloud storage data centers refers to the connection the interconnected network between data centers around cloud storage, which belongs to the internal network of cloud storage. The network is mainly used for data transmission within cloud storage, such as general distributed transaction processing, data copy synchronization, data backup, etc.

Different transmission services have some of different QoS requirements. For the noise-limited network scenario, the optimal solution of the theoretical model proposed in this paper is solved, that is, under the constraints of base station transmission consumption and D2D signaling consumption, the cache distribution cpi that maximizes the success probability of total service transmission is solved. . The party building work system is divided into four functional modules: the party member work system, the branch work system, the mine party committee work system and the company party committee work system. The party member work system mainly realizes the self-education and self-management of party members. The service is described using WSDL, so as to serve the requester Discover and access the service. For the complexity, particularity and scalability of manufacturing cloud platform resources, WSDL is mostly based on the syntax layer, which cannot achieve the semantic description of Web service functions.

Aiming at the problem of unbalanced utilization of network link bandwidth between multiple data centers in cloud storage, a QoS-oriented network traffic scheduling model between multiple data centers is proposed. The optimization goal of the model is to ensure the performance requirements of data transmission with different QoS levels. They are the initial stage, the propagation stage, the control stage, the integration stage, the data management stage and the mature stage. The first three stages have the characteristics of the computer age, and the last three stages have the characteristics of the information age. The party member work system realizes the process of party members' self-education and self-management, and achieves the purpose of promoting party members' self-learning and self-education through comprehensive functional informatization and evaluation, and forms an internal dynamic mechanism for party members' self-management.

3. CONCLUSIONS

This paper proposes that the informatization work of the party building of the organization can be carried out by relying on different platforms to carry out "Internet +". The confidential work can be combined with the campus informatization platform. The propaganda work uses "two microcomputers and one end" to carry out the paper aiming at the QoS requirements brought by the multi-network fusion mechanism based on the cloud platform, and also introduces the communication mechanism, and in the future, the more discussions will be applied.

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Dynamic Research on the Construction Mechanism of Sports Characteristic Towns Considering the National Fitness Concepts

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Abstract: Dynamic research on the construction mechanism of sports characteristic towns considering the national fitness concepts is studied in the paper. The experience of different cultures is an important factor affecting tourism involvement, and the capital logic of the tourism economy also implies people's transcendence of daily life. The characteristics of traditional sports towns are extremely prominent, and there are relatively few human factors. The relevant departments pay more attention to the promotion of towns, supporting construction and the improvement of local facilities. Then, this paper gives the novel suggestions for the task.

Keywords: National fitness concepts; dynamic research; construction mechanism; sports characteristic towns

1. INTRODUCTION

Sports (characteristic) town is a spatial area that integrates multiple functions such as sports and leisure, culture, health, tourism, elderly care, education and training, a national fitness development platform and a sports industry base. The cultural field theory provides a new perspective for the development of the tourism industry. The core construction of a tourist destination is inseparable from its cultural roots.

It is necessary to fully tap the local characteristic culture, and at the same time pay attention to the relationship between cultural objects outside the cultural region and the cultural region. Sports towns are the general internal elements and components of the construction of some characteristic towns. In the process of building sports towns, they need to integrate with local industries, grasp the relationship between industries and urban development, and build local leisure characteristic towns that need to compete for different regions to build. Based on the review, the study can be considered from listed aspects.

(1) Field research method, conducting field research on sports towns in some of provinces and cities across the country, conducting questionnaire surveys on town managers, local residents, tourists, etc. to conduct relevant in-depth research.

(2) Under the guidance of the concepts of the innovation, coordination, green, openness and sharing, the special town needs to fully exploit its own advantages and characteristics, make precise industrial positioning and formulate scientific development plans and further, the concepts will be reviewed through the information collection.

(3) Study the latest reports, such as: "Healthy China 2030" Planning Outline, "Guiding Opinions on Accelerating the Development of the Fitness and Leisure Industry".

The characteristics of traditional sports towns are extremely prominent, and there are relatively few human factors. The relevant departments pay more attention to the promotion of towns, supporting construction and the improvement of local facilities, focusing on the towns and existing tourism, culture,

ecology, etc. industry integration and in the figure 1, the sample is presented.



Figure. 1 The Sports Characteristic Towns (Note: the image is from: https://en.wikipedia.org/wiki/Cape_Town_Stadium)

2. THE PROPOSED MODEL

2.1 The National Fitness Concept

Health risks such as population aging and environmental pollution have put forward new requirements for the national fitness in my country. From a functional point of view, the shared system of the national fitness information service system mainly includes the service objects, service content, management fields and supporting information systems, etc., through the national fitness information service system for industry authorities. We should start from the research on the mechanism of sports to improve the public's sense of gain, think deeply from the general perspective of national fitness participation, explore the challenges of improving the public's sense of gain under the background of national fitness in the new era, and propose specific paths for improving the public's sense of gain in the development of national fitness.

We should look at it from the perspective of the life cycle of human development. The essence of human modernization is to invest in human capital, improve the dimension of human ability, and accelerate process of human ability accumulation; from the perspective of the human capital theory, people who have invested in human capital not only self benefit.

We should consider the listed aspects.

(1) In the new era, people's health will be prioritized for development, and the value goal of the national fitness will be upgraded to jointly build a better and happy life for the people.

(2) Under the special background of the "normalization of epidemic prevention and control" in the future, national fitness needs to transform from "enhancing physical fitness" to "health promotion", and play new functions to continuously promote the deep integration of national fitness and national health.

(3) We should simultaneously promote the national fitness health record information base to collect residents' health and pathology information and fitness and exercise information to facilitate sports doctors and develop sports intervention and non-medical intervention programs.

2.2 The Construction Mechanism of Sports Characteristic Towns

The main body of the construction of characteristic towns mainly relies on the enterprises. To promote the sustainable development of the characteristic towns, it is necessary to promote the continuous growth of related enterprises and let enterprises fully play the role of the main force. The focus of policy implementation in sports towns lies in the pertinence and clarity of policy formulation, which is also the basis for policy evaluation and feedback.

Under the background of the country's vigorous development of economic construction, the sports tourism industry will surely become a new profit growth point and play a positive role in promoting the economic development of the country or local. Corresponding to the construction of national-level "characteristic towns" and "sports and leisure characteristic towns", various provinces and cities have successively carried out the evaluation and cultivation of some provincial-level characteristic towns, so that the construction of characteristic towns has been promoted in an orderly manner.

Hence, we suggest that the country focuses on macro control in terms of the population mobility and talent policies in characteristic towns, with encouraging and guiding policies as the main attraction, and provides relevant support from the aspects of the talent introduction, working conditions, and also entrepreneurial environment.

3. CONCLUSION AND SUMMARY

Dynamic research on the construction mechanism of the sports characteristic towns considering the national fitness concepts is studied in the paper. Sports town is currently an important driving force for my country to promote the construction of a strong sports country, and it is also one of

the main starting points for promoting new urbanization and rural revitalization, and this paper gives the novel suggestions.

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Integrative Curriculum Exploration of College Students' Media Literacy Education Considering Novel Curriculum Ideology and Politics

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Abstract: Integrative curriculum exploration of college students' media literacy education considering novel curriculum ideology and politics is studied in the paper. The digital transformation of the bottom-up dynamic planning empowers implementation mode of "two-way connectivity" of ideological and political courses in colleges and universities, forming the "specialized thinking" curriculum path and a "problem-oriented" classroom path. Then, we further apply these ideas into the novel curriculum ideology and politics, and we need to reorganize and integrate the original knowledge points, and dig deeper into the ideological and political elements contained in it. The basic and enhanced suggestions are pointed to help understanding the related work.

Keywords: Ideology and Politics; Curriculum Ideology; College Students; Media Literacy Education; Novel Curriculum

1. INTRODUCTION

The core report of the Nineteenth National Congress of the Communist Party of China made the major judgment that "socialism with Chinese characteristics has entered a new era", pointed out the new historical orientation of our country's development, and put forward new understandings and new requirements for labor education in the new era. "People create history, labor creates the future", Xi Jinping's new era of the socialism with the Chinese characteristics has further developed the Marxist concept of labor, and created a new realm of socialist labor thought with Chinese characteristics in the new era. Hence, we consider this as the basis of the our designed methodology. With the deepening of the domestic research, in 2006, my country issued the "National Scientific Literacy Action Plan (2006-2010-2020)", while focusing on improving the quality of education, including minors, farmers, urban labor population, leading cadres and civil servants.

For the quality, we consider the listed dimensions.

(1) "Knowledge" refers to the globalization, world history; "skills" refer to effectively participating in global business, being able to then collaborate across cultures, being able to then recognize cultural differences, and being able to evaluate cross-cultural behavior.

(2) These two kinds of studies have their own advantages and have also achieved relevant practical results, which are reflected in the talent training programs and also curriculum Settings of many colleges and universities. In particular, the diversified education mode based on the general education courses is the main way adopted at present.

(3) "Exploring the world" refers to being able to explore the world beyond the surrounding environment; "distinguishing different perspectives" refers to being able to distinguish the perspectives of oneself and others; "communicating ideas" refers to being able to communicate effectively with people from different backgrounds; "taking action" refers to being

able to Ideas translated into appropriate actions to solve global problems.

With these basic ideas, in the following sections, the details will be studied considering the background.

2. THE PROPOSED METHODOLOGY

2.1 The Novel Curriculum Ideology and Politics

Although curriculum ideology and also politics is a new formulation in the field of ideological and political education, its core semantic meaning was born at the beginning of the founding of New China, and along with the evolution of the higher education, it is embedded in the grand plan of the strategy of strengthening the country with talents. Guided by curriculum and teaching theory, we deeply integrate "special thinking" and also flow through digital intelligence to build "professional-curriculum-classroom" to advance layer by layer from top to bottom, "classroom data set-course portrait chain-professional ability stack".

The digital transformation of the bottom-up dynamic planning empowers implementation mode of "two-way connectivity" of ideological and political courses in colleges and universities, forming the "specialized thinking" curriculum path and a "problem-oriented" classroom path. The "Outline" pointed out that "to comprehensively promote the ideological and political construction of the curriculum is to integrate the guidance of values into knowledge imparting and ability cultivation." That is to say, the value shaping, knowledge imparting and ability cultivation in curriculum teaching should be integrated.

Therefore, we need to reorganize and integrate the original knowledge points, and dig deeper into the ideological and political elements contained in it. With the issuance of the normative document "Guidelines for the Ideological and Political Construction of College Curriculum" issued by the Ministry of Education, a gratifying situation has emerged in the ideological and political construction of the colleges and universities in various places.

The purpose of the curriculum ideological and also political construction is to analyze the reality and possibility of its function realization from the perspective of the curriculum ideological and political function. The dynamic nature of the curriculum thinking and political construction is to take a dynamic and The dynamic nature of the construction of curriculum thinking is to see the construction of curriculum thinking as a process with a dynamic and also developmental perspective. The digital transformation of education is not only a "routine action" of digital transformation in the field of education, but also reflects that changes in the demand for social talents have forced the comprehensive and thorough transformation and upgrading of the education system.

The digital transformation of education is the only way to support a high-quality education system as goal of improving quality and efficiency, supported by the new educational infrastructure, taking educational data as an element, taking the integration of data and intelligence as the direction, and taking systematic change as the core symbol are important characteristics of the digital transformation of education

2.2 The Integrative Curriculum Exploration of College Students' Media Literacy Education

As an important group in modern society, college students are an important reserve force for national rejuvenation and national development, and their scientific literacy is directly related to our country's future technological innovation and modernization. Core literacy places more emphasis on the overall quality of people, i.e. The key and important factors that are demonstrated in different fields and situations. Core literacy has a vital impact on people's future work, life and study. In order to then make more efforts in the overall development and improvement of the comprehensive quality of college students, carry out active and effective physical education curriculum reform and innovation, set goals tend to be diversified, make them persist in physical exercise for a long time, and cultivate lifelong sports awareness. The global literacy evaluation model is constructed to evaluate the global literacy level of college students. The quality of the model determines the validity and accuracy of the evaluation results.

Therefore, after determining the corresponding measurement indicators and factor loads of each dimension, the global literacy evaluation model needs to evaluate its internal quality and external quality to verify the model. No matter what kind of scientific literacy, it has a relatively fixed boundary, as shown by the outermost solid line, which shows that scientific literacy can draw a clear line from other aspects of college students' comprehensive literacy and hence, the performance will be improved.

3. CONCLUSIONS

Integrative curriculum exploration of college students' media literacy education considering novel curriculum ideology and politics is studied in the paper. We must run through ideological and political education in the process of education and teaching, so as to realize all-round and whole-process education. The majority of teachers should infiltrate elements such as morality, spirit, will, and core values into programs with great ideological and political concepts. Furthermore, the ideas will be validated into the real education.

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Practice and Further Thinking of Modern Flipped Classroom Teaching Mode in University Students' Career Education

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Abstract: Practice and further thinking of modern flipped classroom teaching mode in university students' career education is studied in this paper. Career education guidance in colleges and universities must conform to the development trend of new media, deeply analyze the advantages and disadvantages of new media for college students' employment and entrepreneurship, and at the same time carry out a comprehensive integration of the latest framework. The flipped classroom starts after the class. Students learn by actively searching for information or watching videos. Teachers can make some online courses and also record some videos to let students learn some knowledge actively. Accordingly, the proper combinations are considered.

Keywords: Career education; university student; flipped classroom; teaching mode; further thinking; practice

1. INTRODUCTION

The career planning course for college students pays attention to the all-round development and lifelong development of students, and undertakes the talent training goals of then guiding students to establish the correct career outlook to improve professional quality, and master planning skills. As we all know, colleges and universities have always been the teaching goal of sending high-quality talents for the country.

The standard of the high-quality talents not only means that students need to then master relevant professional skills and professional knowledge, but also be able to guide students to embark on employment activities smoothly, and be able to exert their own brilliance in some employment positions and contribute to social development, we consider listed aspects.

(1) After the implementation of career planning education, the teaching content of general higher vocational colleges can be effectively enriched, so that students can further master more vocational skills and career education skills through the implementation of this core education, and expand their career education development space after graduation. It then finds suitable career education opportunities for itself, continuously improves employment competitiveness, and contributes to the realization of self-worth.

(2) In order to promote the orderly development of career planning education of college students in the new era, it is necessary to then inject new spiritual connotation into career teaching activities of college students.

(3) The smooth advancement of career planning education is inseparable from the creation of a general good educational environment, including policy support, teacher guarantee, and campus cultural dissemination, etc.

Then, we consider the flipped classroom scenario. The flipped classroom starts after the class. Students learn by actively searching for information or watching videos. Teachers can make some online courses and also record some videos to let students learn some knowledge actively.

When they find problems, they can look up the information and think about it. It has positive significance for improving students' learning efficiency. Flipped classroom uses modern information technology to subvert the traditional teaching mode and teaching concept, but also has a positive impact on the cultivation of students' self-discipline and self-learning ability, as well as the creation of the new student-centered teaching mode.

As shown in the following figure 1, the mode is presented as the referring.

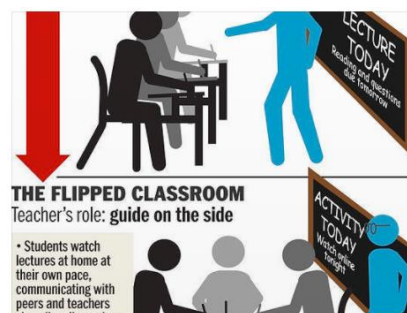


Figure. 1 The Flipped Classroom Teaching Mode (The link: <https://www.researchgate.net/post/Flipped-Class-Room-Education-can-inspire-the-modern-teaching-sytem-for-Fashion-How-in-the-context-of-a-middle-incoming-country-like-Bangladesh>)

2. THE PROPOSED METHODOLOGY

2.1 The Practice and Further Thinking of Modern Flipped Classroom Teaching Mode

Vocational education reform emphasizes the simultaneous improvement of the students' knowledge, skills and also the professionalism, and pays more attention to comprehensive cultivation of college students' morality, intelligence, physical education, art and labor in the new era, helping students form creative thinking of the independent thinking and independent exploration. University classes are more flexible, so students can group themselves, for example, those with the same major or the same knowledge can form a group, so that students can think with questions, which can deepen the impression and

improve learning efficiency, this active learning style is then conducive to improving students' personal skills.

The classroom has the following focuses.

(1) The biggest advantage of the flipped classroom is to move the traditional classroom teaching directly then outside the classroom, transform the face-to-face classroom time between teachers and students into the time for rich and meaningful learning activities, emphasize the interaction between teachers and students, and realize the general deep participation in the classroom to maximize teaching effectiveness.

(2) In the flipped classroom teaching mode, teachers should continuously expand their knowledge, continuously improve their teaching ability and teaching quality, and then satisfy students' thirst for knowledge.

(3) The flipped classroom is student-centered, and students are in the position of active learning, interactive learning and individual learning in the learning process that focuses on student inquiry and aims to then improve the students' ability development.

2.2 The University Students' Career Education

Analyzing from the perspectives of supply and demand, we found that the real dilemma faced by employment is: the "difficulty in recruiting" for enterprises and the "difficulty in finding a job" for graduates. On the one hand, companies are thirsty for talents; on the other hand, many fresh graduates cannot find ideal jobs. In order to provide professional career planning education for college students, it is necessary to have a professional team of teachers, the professional quality of college students' career planning educators should be then excellent.

However, in terms of teaching quality of Chinese university career planning educators, it still needs to be improved. The vocational career planning educators of the Chinese university students have more about the theoretical knowledge of the vocational career planning, and lack the practice teaching activities of the vocational career planning for the university students. Teachers' professional quality and teaching quality are directly related to the improvement of the quality of college students' career planning teaching activities, and also directly related to the effective training of the high-quality practical talents. At the level of teaching methods, adhere to the student-centered, three-dimensional and also diversified teaching methods based on experiential teaching methods, cultivate students' spirit of inquiry, reflection, innovation and comprehensive quality, and combine online and the offline flipping in the teaching process classroom.

3. CONCLUSION

Practice and further thinking of modern flipped classroom teaching mode in the university students' career education is studied in this paper. College educators must be aware of the teaching value and teaching significance of career planning education. And based on the realistic employment needs and employment situation of the society in the current new era, active and effective educational measures should be taken. Then, the latest classroom pattern is well combined for the implementation of the systems. In the next stage, the applications will be then tested on different colleges.

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Novel Practice of the Innovation Model of Recent Mental Health Education for College Students

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Abstract: This paper studies the novel practice of the innovation model of recent mental health education for college students. The content of college students' mental health education courses includes the college students' psychological characteristics, adaptation psychology, learning psychology, etc. By promoting a scientific view of health, we help students develop a positive mood, enhance the sense of meaning of life, and promote students to be united in their ideal beliefs, values and moral values. The students will be united in their ideals, values and moral values. Individualized psychological counseling for students and group psychological counseling are different in form, but the service purpose is the same, that is, to serve students' mental health.

Keywords: College Students, Mental Health Education, Novel Practice, Innovation Model

1. INTRODUCTION

Mental and behavioral health problems have always been an important research content of college students. Our country's higher education started late, but developed rapidly. Mental health problems last a long time and cover a wide range of areas. Faced with the large number of people in colleges and universities, the general characteristics of various forms of psychological problems, can not unilaterally rely on mental health education courses to solve the problem.

Therefore, it is necessary to form the mental health education prevention and also control system under the normal epidemic situation in colleges and universities, and give full play to the advantages and characteristics of each teaching curriculum. There are many ways to educate students on mental health. The key is that teachers need to find a suitable method, that is, they can then choose the appropriate method according to the specific situation and educational content, so as to ensure the effectiveness of education. Accordingly to the recent study, listed focuses of the mental education should be considered.

(1) The Ministry of Education and units should care about the mental health prevention and also control education of college students, carry out targeted and regular prevention and control education, carry out activities such as psychological weeks and chat rooms, and take the initiative to care about students' learning and living needs.

(2) The content of ideological and political education has a distinct contemporary nature. It focuses on enabling students to understand and learn social rules, distinguish right from wrong, good from evil, beauty from ugliness, and also pursue noble thoughts and conduct. Mental health education is then mainly to educate and guide students in their study, life, personality, career and other issues.

(3) Counselors can work with mental health teachers to then collaborate and actively organize beneficial activities where students can interact and actively discuss with each other, so that students can develop a sense of security and fun, and their inner guard will gradually relax.

The general purpose of education is to cultivate people into comprehensive quality talents with all-round development of

morality, intelligence, body, beauty and labor. Mental health education in colleges and universities is not the exclusive work and task of psychology teachers, but should be shared by all educators. In the figure 1, we denote the Mental Health Education Focused Keywords. In the following parts, the details will be discussed.



Figure. 1 The Mental Health Education Focused Keywords (URL: <https://www.cuindependent.com/2019/03/08/opinion-mental-health-education/>)

2. THE PROPOSED METHODOLOGY

2.1 The Background of College Psychology

Mental health education is of great significance for college students to further maintain good interpersonal relationships, maintain personality integrity and harmony, fully understand themselves, and improve adaptability.

Affected by the epidemic, the pressure on college students in study, employment, interpersonal communication and other aspects is more prominent than before. How to effectively carry out the mental health literacy promotion projects and improve the mental health literacy level of adolescents is an important issue facing mental health workers. According to the related study, the scholars conducted a correlation analysis on the total score of the employment stress and its various dimensions and the total score of psychological toughness and its various dimensions. Psychological education is one of the "Ten Ten" education systems, and psychological education is responsible for the new requirements and new missions of the mental health education in colleges and universities in the new era. This requires colleges and universities to break the original work thinking, create a new work pattern, and use mental health education to then achieve the ultimate goal of

educating people and cultivating morality. We can see that the tenacity dimension can effectively predict the variation of the dependent variable at the significance level of 0.05, while the strength dimension and also optimism dimension in mental toughness have no predictive effect on the dependent variable

2.2 The Novel Practice of the Innovation Model of Recent Mental Health Education for College Students

Some colleges and universities do not pay enough attention to mental health education, and do not understand the spirit of relevant documents on mental health education, resulting in a situation where mental health education is dispensable and then then, we will consider the modifications.

The service subjects of ideological and political education and mental health education are "students". Ideological and the political education focuses on the shaping of general students' ideology and morality, while mental health education focuses on the cultivation of students' psychological quality.

Psychological training is then organically combined under the general task of educating people. Therefore, the political education can provide the methodological guidance for the mental health education. and mental health education can also effectively complement the relevance of essential to achieve the specific analysis of specific problems with the integration of the two is necessary and essential. We should strengthen the integration of the mental health prevention and control education and also counselors' psychological education in professional course learning, effectively use the teaching characteristics and forms of other courses, carry out mental health education in multiple forms, and better integrate mental health prevention and control education into the classroom learning in life, and in work. At the same time, classroom teachers should provide positive guidance in learning, conduct teaching evaluation in a core targeted manner, treat special situations differently, and intervene in different channels and forms, such as ideological and political teachers, counselors, and classroom teachers, in light of specific situations, so as to enrich epidemic prevention and control with the mental health education process intervention form under control.

3. CONCLUSION AND FUTURE SCOPE

This paper studies the novel practice of the innovation model of the recent mental health education for college students. Psychology teachers are the teaching subjects of mental health education courses, and their moral education awareness and ability are directly related to the ideological and political quality and effect of the courses. This paper gives then give suggestions for the recent mental health education. In the future, we will then apply it into the real scenarios.

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Development Index System and Dynamic Analysis Framework of Sports Characteristic Towns Based on Intelligently Assisted Portrait Analysis of Camera Images

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Abstract: With the gradual deepening of the reform and opening up in the inland, many sports towns in the northwest have certain development indicators to be assessed every year. Based on the camera image algorithm, this paper intelligently analyzes the development indicator system of sports towns and builds a dynamic framework for portrait analysis. Firstly, the method processes the image information collected by the camera, finds the road edge according to the characteristics of the road information of the sports town, and then analyzes the evaluation index system of the development level of the sports town according to the road edge. The research shows that the evaluation index of the development level of towns with sports as the core feature is inseparable from the comprehensive evaluation index system of the general characteristic towns, but the indicators and dimensions embodied in the characteristics of "sports" .

Keywords: Index System, Dynamic Analysis Framework, Sports Characteristic Towns, Portrait Analysis

1. INTRODUCTION

In recent years, the intelligentization of home appliances has become more and more intense, and it has become a general trend. All intelligence is based on the machine's perception of the outside world [1]. Data collection is the basis of perception, which mainly includes the collection of voice, image and other data. As of 2012, the "Freescale" Cup Smart Car Competition has been successfully held for nine sessions, and has received extensive attention from major universities, attracting many teachers and students to participate in it every year [2]. The teachers and students of the Electronic Design and Innovation Laboratory of our school have also participated in several competitions, and the problem of occlusion of the target can be well solved through the cooperation between the cameras [3].

In terms of field of view the field of view coverage of multiple cameras is definitely much larger than that of a single camera, the tracking of the target is more durable, and the tracking range is wider [4]. In some difficult issues, it also has its own set of practical methods and the plan is an important starting point for promoting sports poverty alleviation work, and has made important arrangements for the construction of national sports towns [5].

The construction of sports towns is still in the initial period of exploration. The construction of new towns focuses on the coordinated development of population, industry, ecology and space [6], while the sports towns advocating the concept of "innovation, coordination, green, openness and sharing". Meeting the requirements of new-type urbanization is one of the breakthrough points to promote the construction of new-type urbanization [7]. At present, the construction of sports characteristic towns is in the exploratory period. In August 2018, the "Notice of the General Office of the National

Development and Reform Commission on Establishing a High-quality Development Mechanism for Characteristic Towns and Characteristic Small Towns" [8] first proposed that each region should be based on characteristic towns. The difference of essential connotation, standardize the provincial creation mechanism [9].

Under the background of current planning and development, application and cultivation, and functional positioning, sports towns have emerged as the times require. The town is used for the development of national fitness and health business, and the problem of occlusion of the target can be well solved through the coordination between cameras [10].

In terms of field of view, needless to say, the field of view coverage of multiple cameras is definitely much larger than that of a single camera, and the tracking of the target is more durable and the tracking range is wider [11]. At present, the mainstream image-based obstacle detection methods are mostly aimed at Dynamic obstacles are designed, while the main purpose of this paper is to identify static obstacles. Therefore, different from the direct detection of dynamic obstacles, this paper divides the detection of static obstacles into two parts [12]. At present, the mainstream image-based obstacle detection methods are mostly designed for dynamic obstacles, and the main the purpose is to identify static obstacles [13].

Different from the direct detection of dynamic obstacles, this paper divides the detection of static obstacles into two parts. From the home appliance market and major home appliance exhibitions [14], we can see that cameras have gradually spread over all kinds of home appliances, making home appliances smarter Provides image data acquisition capabilities. This solution uses OV series digital cameras to collect road images. OV series cameras are digital cameras

commonly used in Freescale smart car competitions [15]. They have the advantages of convenient and simple data collection, low power consumption and small size. This series of cameras has signal acquisition methods such as line signal HREF, field signal VSYN, pixel synchronization signal PCLK and odd-even field signal. Search CNKI and relevant websites of Shandong government departments [16], sort out and analyze the literature on the construction and evaluation of characteristic towns, and the construction and development of sports towns, and master the research results related to sports characteristic towns [17].

The construction of sports towns has kicked off, but due to incomplete supporting documents, unclear implementation of specific plans and other factors, the construction of sports towns is still in groping. The town developed slowly [18]. The local government realized that the reason why the sports characteristic town took a detour is that the construction work lacked the guidance of the index system [19].

2. THE PROPOSED METHODOLOGY

2.1 The Camera Image Intelligence Assists Portrait Analysis

Multi-camera handover tracking is able to continuously and stably track the target through two or more cameras, because the same target may appear in the monitoring scene of different cameras. During the process of image analysis and processing, the researchers found that Most of the effective information of the image is often concentrated in a specific area, while other edge areas contain less information, or even negligible. Shooting method: when the door is completely closed, that is, the camera field of view is completely facing When taking pictures inside the refrigerator, each camera is responsible for taking pictures of the first floor of the refrigerator. The system is designed to maintain the openness of the system. Openness refers not only to being able to support various platforms and various network environments, but also to supporting the secondary development of software. The system uses standardized data interfaces to ensure the most basic performance of exchanging and sharing data with other information systems.

The system uses standardized data interfaces to ensure the most basic performance of exchanging and sharing data with other information systems. The handover process of the target is that for the target to be handed over, the target to be handed over can be found in the field of view of another camera. By detecting the moving target in the field of view, the similarity measurement is performed with the target to be handed over, which can be similarity measurement of local texture, corner, color and other features.

2.2 The Development Index System of Sports Characteristic Towns

The research significance of sports towns runs through many fields such as new urbanization construction, rural revitalization, targeted poverty alleviation, healthy China, sports culture construction, and sports tourism industry integration. On the basis of consulting relevant literature and expert interviews, evaluation indicators for the development of sports characteristic towns are preliminarily determined. According to the research needs, 30 experts were identified, including 8 experts in urban development planning, 9 experts in sports industry, and 6 experts in sports sociology. Industry, culture, ecology and many other aspects.

A small town with sports as its core characteristic is a new business integration and growth product, and relevant research cannot only focus on the context and theory of the sports industry. SPSS20.0 statistical software was used to process the data, calculate the importance of each index, the mean, standard deviation and coefficient of variation of operability, and analyze the index system.

The video tracking system based on multi-camera requires that the video data collected by the multi-camera can be processed and analyzed, the target in the video image frame can be automatically detected, and the accurate tracking can be performed. Then automatically put the video images of different cameras at the same time. When screening indicators, it is necessary to meet the basic requirements of evaluation and assessment, but also pay attention to the possibility of current statistical data, that is, indicators are easy to obtain, easy to measure and easy to evaluate and check. The realization of functional requirements allows people to clearly understand what the system can do, and the realization of performance requirements can bring users a better experience. The multi-camera target handover tracking algorithm involves the handover and fusion of information between different cameras. Stable and continuous tracking of moving objects under each camera is also critical. The robustness of tracking under each camera is also directly related to the quality of handover tracking. With this method, its time and space complexity are high, and it is only sensitive to fast-moving objects such as vehicles. If the obstacle is stationary or moving at a low speed, this detection method often cannot achieve the desired effect. To sum up, in the research on sports characteristic towns, the research results of domestic scholars are diversified, mainly involving the research content It includes the concept, construction type, development model, development path, etc. of a sports town.

3. CONCLUSIONS

The connotation of a sports town is a general term for an industrial base or space carrier that is based on the unique natural, cultural and other resources of a certain area and takes sports as the theme. The multi-camera target tracking system applies several current classical algorithms, and adopts the mixed Gaussian difference algorithm to achieve fast and accurate detection and tracking of the target. Target matching and handover. Its development level evaluation index system mainly includes four criteria-level indicators infrastructure development information, sports characteristic industry.

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Innovation of the Development Model of Ideological Education Based on Mobile Device Information Sharing Algorithm in the Era of Big Data

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Abstract:Based on the mobile device information sharing algorithm, this paper proposes an ideological education model of real-time video sharing in the Ad Hoc network self-organized by mobile intelligent terminals. First, real-time video sharing and switching applications can be realized in the Ad Hoc network. APP with video sharing function. On the mobile APP, while students are receiving education, a large amount of knowledge and culture floods the campus, and various values and moral indicators collide with each other, which directly affects the future development of students. To make people realize that how to carry out ideological and political education and ideological purification of college students from the perspective of new media requires innovative development and efficient use of new media for communication.

Keywords: Development Model, Ideological Education, Mobile Device Information, Information Sharing Algorithm

1. INTRODUCTION

With the rapid development of today's society, people's material life has become more abundant, and people's needs have also increased, more diversified, and more diversified value choices [1]. In the education industry, there are certain differences in the personalities of students. For the teaching of ideological and political courses, many students report that it is relatively boring, and teachers' teaching is also in the teaching process of "I tell you, listen, and I tell you to do" [2]. In the era of lack of communication and interactive big data, the ideological and political education work in colleges and universities will inevitably encounter the influence of various multimedia platforms. Instead of avoiding it, integrate them. College students and teachers are the main cultural carriers, and their knowledge content and cultural level are very high [3].

Big data has a large number of complex information attributes and high-end cutting-edge technical characteristics. It is comprehensively changing the analysis and observation thinking of human beings [4], grasping the way of thinking and the path of change in the world, and shouldering the important task of ideological and political education for contemporary college students. In the process of traditional ideological and political education, because teachers' teaching concepts are outdated, the content of textbooks is boring, and students are tired of learning. Today, new media are very popular [5].

To strengthen the ideological and political education of ethnic harmony in colleges and universities, we must fully understand the core concept of General Secretary Xi Jinping on the innovative development of ideological and political education [6]. Maemo is an open development platform for handheld terminal applications and technological innovation. The platform is based on the GNU/Linux operating system and GNOME desktop technology [7]. Memo provides a convenient and practical development environment for developers. Studies have shown that the use of unlicensed frequency bands in wireless communications is relatively

saturated, and the efficiency of licensed spectrum usage varies greatly with time, region and space, reaching 15% to 85% [8].

Cognitive Radio (CR) technology is considered as an effective method to improve spectrum utilization. Data are symbolic records that describe things [6]. As the raw material of information, data is a true description of the objectivity of events. This description is discrete and objective. For data, it can be understood as follows: First, data is matter [9]. Data refers to raw, unprocessed records. It is believed that the development and progress of society and the improvement of the level of science and technology have promoted the innovation of educational methods in the new era [10], which is embodied in macro-level socialization and micro-level scientificization, as well as theoretical integration and practical modernization.

On the other hand, there is no need to be too entangled in the debate on "ideological and political education paradigm", "ideological and political education research paradigm" or "ideological and political education discipline paradigm" [11]. The reason is: ideological and political education has a strong practicality, and in many cases, educational practice is an "experiment" for this activity. Deploying cellular networks in unlicensed bands requires addressing two key issues. First, due to differences in spectrum access mechanisms, cellular networks will have serious negative impacts on existing networks when accessing unlicensed frequency bands [12].

The interface design of this system is implemented in GTK+2.0 language with Hildon user interface style characteristics. GTK (GIMP Toolkit) is a set of X-window-based graphics toolkits across multiple platforms. Originally, the GT1 pin was used as another well-known open source project. In centrally controlled CR networks, many studies revolve around spectrum pooling for channel allocation [13].

PU users lease part of the idle channels to SUs that need spectrum. Negotiation is required between PU and SU, and SU needs to pay a certain fee to use these channels. Only by emancipating the mind can a country prosper and prosper [14]. The same is true of education. Only by emancipating the

mind can the development and progress of education be realized [15].

2. THE PROPOSED METHODOLOGY

2.1 The Mobile Device Information

Sharing Algorithm

he greater the correlation, the less obvious the diversity characteristics, the less the contribution to the cooperative spectrum sensing performance, and the greater the sensing overhead. The existing network is the original network occupying the unlicensed frequency band, and its APs use the unlicensed frequency band to provide users with uplink and downlink. Cellular networks share the same spectrum as existing networks and are deployed independently. Voting Mechanism is designed to solve such problems in Ad-hoc networks. It is located at the application layer, and can distribute and real-time statistics of neighbor user states on each user terminal, extract those more common states and actions, and provide users with certain behavioral guidance and reference information.

In this paper, the centralized control CR network structure will be adopted, and the cognitive base station CR-BS will be set up in the network. At this point, the cellular network cannot establish a control link with it, and therefore cannot use all cooperative spectrum sharing schemes, including distributed cooperation. In dense scenarios, various networks coexist, and each network uses different technologies. When users are densely deployed, the interference between networks or users increases. In order to avoid interference between users, the transmission power in a dense network is small.

2.2 The Ideological Education and Big Data

In the context of the era of big data, relatively high regulations have been put forward for teachers' work.

The basic characteristics of work under the condition of big data have the characteristics of a large amount of information, lower effective information density, and faster data update, which is a great challenge to the previous college education work. Building an educational platform for ideological and political work is an inevitable requirement for the development of ideological and political education for modern high school students in the Internet age and the era of big data. The information communication method in the network society can fully liberate human nature. Under the premise of freedom and equality, through It provides a new perspective for people to understand the world and helps educators predict new situations based on relevant relationships. Prediction is the core function of big data technology, and the prediction function of big data can help educators in advance. Estimate the possible changes during education implementation. Individual characteristics gradually weaken.

It is difficult for traditional data processing technologies to clearly describe the individual characteristics of users in dense scenarios, and even approximate processing will cause large errors. This brings difficulties to spectrum sensing of CR user mobility in dense scenarios, and it is necessary to develop new spectrum sensing algorithms. At present, there are many kinds of mobile intelligent terminal platforms, and the mainstream operating systems are: Symbian, Android, Windows Mobile, iPhone, Palm OS, etc. If the video sharing application is only limited to the mobile intelligent termin

2.3 The Innovation of The Development Model of Ideological Education in the Era of Big Data

The ideological and political education in colleges and universities should strengthen the attention to students' ideology and morality, and build a student information data warehouse. Collect the basic information of students, build a large amount of data, and then analyze and dispose of the data accordingly. In education and teaching, "evaluation" is an important part of the improvement of teachers' teaching quality. Teachers can not only help students know themselves through evaluation, but also achieve a teaching situation of mutual promotion and common development. At present, big data has been successfully applied in the commercial field. For example, every time we search for a certain product on Taobao,

There will be product recommendations similar to the products you searched for immediately. The reason is that merchants use big data technology to collect people's browsing records and purchase records on web pages. When CR users move in dense scenarios, they cannot use traditional spectrum. The perceptual method excludes users outside the PPR range. The signals are highly correlated and change in real time as the user moves. In addition, N also changes randomly every TN time slots. In the case where the cooperation between the cellular network and the existing network is limited, the cellular network cannot know the n and N of the existing network in each frame. In addition, CSMA/CA is a random access protocol. In the context of the era of big data, it provides great possibilities for the teaching of ideological and political education in colleges and universities, and the education industry can realize the dativization of elements.

3. CONCLUSIONS

For the innovative development of the ideological and political education model in the era of big data, teachers must clearly know that it is not only a technology, but also a way of life, behavior and thinking. In the application system of sharing and switching, a video source switching algorithm based on location information is proposed, and the realization of the prototype of the specific stadium application scene system is given. As a result, great changes have taken place in the values, ways of thinking, and lifestyles of contemporary college students. The traditional ideological and political model of colleges and universities is becoming more and more difficult in cultivating the high-quality talents, even showing the phenomenon that the quality of talents is out of touch with reality

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Quantitative Framework of Political Education Micro-communication Mode Based on Reachable Information Matrix Algorithm

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Abstract: Based on the generalized decision reduction and reachable information matrix algorithm of the set-valued decision information system, this paper establishes a quantitative framework for the micro-communication model of political education. First, this paper draws on the comparison between communication and psychology using matrix to extract all decision rules based on Marxist theory and ideological and political education theory. Then, taking the dissemination effect of ideological and political education of college students as the research object, by analyzing the factors affecting the effect of dissemination of ideological and political education of college students, the factors and characteristics of political education dissemination are extracted. The construction of educational discourse system.

Keywords: Quantitative Framework, Political Education, Micro-communication Mode, Reachable Information Matrix Algorithm

1. INTRODUCTION

With the advent of the information age, the way people obtain information and knowledge has undergone tremendous changes [1]. Under the guidance of policy documents such as "Ten-Year Development Plan for Education Informatization (2011-2020)" and "Opinions on Accelerating the Development of Vocational [2] Education Informatization", the modern media featuring "micro-communication" is widely used, Is sparking a new revolution in education. Learning to master modern media [3] technology and continuously enhancing timeliness and appeal is the goal and direction of Zhu Lai's reform of ideological and political theory courses in colleges and universities [4].

Establishing a comprehensive and open view of big data thinking and cultivating good data collection, screening, analysis and application capabilities can effectively narrow the information "gap" [5]. Using micro-communication technology in the era of big data to control data and master its use skills can shorten the distance between educators and classmates and build a bridge of communication [6]. From a practical point of view, this research helps to integrate the fundamental task of building morality and cultivating people into the initial [7], relay and follow-up stages of micro-communication. The organic integration of moral education in and strategy design [8].

In classical systems, the characteristics of a system can be obtained from the system matrix of the research system. People naturally [9] ask the question: whether the characteristics of the rough system generated by the rough set can also be obtained from the rough matrix of the system that studies the rough system [10]. In practical problems, due to the complexity of the problem, it is necessary to ensure that all the integrity of attribute values is often very difficult. For databases with missing data, or information systems with incomplete data, set-valued information systems can often be used to deal with [11], because missing or incomplete attribute values can be It is represented by all possible values

of this attribute, and the traffic flow of the road section is determined as a stable number [12]. In the actual investigation, the data obtained from the investigation are uncertain due to the influence of the investigation time, the quality of the investigator [13], and the surrounding environment and other factors. Moreover, in the process of data statistics and processing [14], there will be deviations within a certain range. The second is the research on the impact of micro-media on college students.

Weibo, WeChat and other application software derived from the micro-media era have attracted a large number of young college students, especially college students, by virtue of their convenient operation and unique charm. They are the groups that use Weibo [15], WeChat and other software the most. Definition of the media and the media environment. Mass media refers to social organizations with a certain scale that can operate large-scale media system activities [16]. According to the different development periods of mass media, as well as the differences in communication objects, communication channels, and operation methods, it is generally divided into traditional mass media and modern mass media.

All this information is presented on the platform established by itself, and then displayed to users through some high-end smart displays. In such an emerging communication process, information can be disseminated and received by people in the fastest way, and at the same time, interactivity is strengthened, which can be said to be the continuation and innovation of the new media era [17]. In recent years, domestic scholars have conducted a comprehensive and systematic analysis and research on the micro-level, especially the aspects that are most closely related to the hotspots and focal issues of current social concern. Among them, the research and elaboration of the right to speak in the field of ideology in our country is the majority. Hegel pointed out: "true thought and scientific insight can only be obtained through the labor of concepts.

Academic research work based on clarifying the connotation and extension of concepts and identifying and analyzing the conceptual category system is the basic prerequisite and fundamental guarantee for the development of scientific research. To establish a unified management platform for the integration and interoperability of smart campuses, integrate educational administration management systems and teaching resources [18]. The wide application of micro-communication provides an important opportunity for the construction of a new teaching mode of ideological and political theory courses.

2. THE PROPOSED METHODOLOGY

2.1 The Reachable Information Matrix

Algorithm

This paper proposes and studies the coarse information matrix for the first time. It can be seen from the discussion that each element in the rough information matrix is an ordered pair, which is a rough set that satisfies the binary property. The form is re-described, and the corresponding matrix reduction algorithm is proposed. Reference discussed the matrix algorithm for allocation reduction and rule extraction of incomplete decision tables based on compatibility relation) matrix reduction and rule extraction methods.

The reachable information matrix changes the subject relationship in the traditional teaching mode. Contrary to the "centralized" dominant teaching model where teachers teach and students accept. In recent years, science and technology and network technology have developed rapidly and are widely used. Improve the learning environment, enhance students' interest in learning, improve teaching quality, and ensure teaching effectiveness.

2.2 The Political Education Communication Model

The power of faith is limitless, especially in young students. In colleges and universities, by accepting correct ideological and political education and establishing one's correct life beliefs, it will have a positive impact on future life development. In the micro-communication activities of ideological and political education in colleges and universities that have been carried out, college students have changed from a single audience role-playing to a collection of dual identities, that is, continue to play an educated role.

People gradually become a new type of communication force while receiving ideological and political education micro-information. It mainly has the following characteristics: First, innovation. Innovation is an important magic weapon to improve the efficiency of information dissemination.

Dominance refers to the performance and play of leading and leading roles in the micro-communication activities. In the process of micro-communication, the huge quantification of micro-information, the diversification of micro-subjects, and the diversification of micro-media have raised issues worthy of consideration and solution to the selection of information, subjects, and media. in micro communication activities. Faith is a major issue fostered by mainstream values in the human world.

2.3 The Quantitative Framework for Political Education Micro-communication Models

Quantitative framework provides convenience for the popularization and grassroots of micro-communication. The educational platform built by micro-communication and the equal expression opportunities of social individuals provide the possibility to build a new platform for the teaching of ideological and political theory courses.

A series of programmatic development and utilization processes such as analysis, classification, storage, and integration. Only by realizing the scientific processing of information resources of ideological and political education in colleges and universities, can the cohesion of resources and the improvement of attraction and appeal can be formed, and then the reasonable conversion of resources to information and the effective play of resource value can be realized. New social in the era of big data. The mobile social behavior under the guidance of ideological and political education science in the era of big data should be integrated into new media technology means, and the integration of social behavior should follow the pace of the times. The scope of the micro-media era is not limited to one subject or field.

3. CONCLUSION

This paper takes the micro-era produced by micro-media as the background, discusses the origin and related concepts of micro-media, and combines the "survey on the use of micro-blog and WeChat by college students". This paper explores the innovation of the discourse system of ideological and political education in colleges and universities.

The current challenges and opportunities for the innovation of the discourse system of ideological and political education in colleges and universities are systematically analyzed, and it starts from four aspects: the principle of innovation, the content of innovation, the way of innovation, and the path of innovation. There are misunderstandings in the choice of micro-communication methods; The communication audience lacks the coping ability; the decision-making behavior of the micro-communication.

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Student Mental Health Cloud Assessment Algorithm Based on Blink Frequency Image Detection Algorithm in Heterogeneous Network Environment

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Abstract: With the development of society, the environment that contemporary college students live in becomes more and more complex, and the mental health of college students has become a very concerned issue at the social level. This paper firstly introduces the relationship between blink frequency and college students' mental health, and uses the blink frequency image detection algorithm to evaluate college students' mental health based on complex heterogeneous networks. Then use C++ to design a cloud evaluation platform for students' mental health in a heterogeneous network environment, upload the evaluated mental health data to the cloud platform based on big data, and use cloud evaluation algorithms to comprehensively review the mental health of college students. Finally, a joint ranking model is used. "MutuRank" tests the mental health intelligence evaluation index of college students. The results show that the method can comprehensively and objectively describe the change characteristics of college students' mental health, and the results of the intelligent assessment of college students' mental health are stable.

Keywords: Student Mental Health, Cloud Assessment Algorithm, Blink Frequency Image, Heterogeneous Network Environment

1. INTRODUCTION

As the number of college students continues to increase, and the pressure of college students' study and employment is increasing, the probability of college students' mental health problems is getting higher and higher, which brings severe challenges to social stability and college management. College students' mental health problems have caused social problems. attached great importance to [1-2]. Major colleges and universities have set up activities such as mental health lectures and consultations, but due to the influence of the psychological characteristics of college students, the effect of such activities has gradually diminished [3]. Therefore, it is of great social significance to study an effective mental health assessment method for college students [4] Association rule algorithm is a kind of important algorithm in data mining. decision support.

Apriori is an association rule mining algorithm, which has the advantages of simple calculation, easy understanding and low data requirements, and has been widely used in the field of data mining [5]. Biometric identification is a technology that uses biometric acquisition devices and computer technology to identify individuals based on the inherent characteristics of the human body. It is currently the most convenient and safest means of personal identification [6]. The current biometrics can be roughly divided into two categories: external features - such as fingerprints, face, palm print, iris, voice, gait signature; internal features - hand veins.

Teaching evaluation is an important work in the field of education, and it is also an important indicator of teaching evaluation [7]. Due to the imperfect evaluation mechanism, the current teaching evaluation system of school education and education training is facing many challenges. But there is no systematic theory. With the continuous thinking and exploration of social networks, and eager to obtain important potential information from social networks, social network analysis [8], a new research field has been rapidly developed

with the maturity of data mining technology development has also attracted more and more attention [9].

Compared with other biometric identification technologies, finger vein identification technology has the following advantages [10]: (1) Internal features: finger veins are located under the human epidermis, so there is no damage, wear, dryness or too much damage to the finger surface. Wet and other recognition obstacles. This paper mainly studies the image matching technology based on deep learning [11]. Firstly, the research background and significance of image matching are summarized, and it is concluded that the traditional image matching algorithm has poor adaptability to interference such as occlusion and deformation, which brings certain difficulties to template preparation [12].

The follow-up briefly introduces the research on image matching algorithms at home and abroad, and briefly analyzes the existing image similarity comparison networks [13]. Infrared images are usually used in the far field of view. According to the wavelength range, they are divided into near-infrared, short-wave infrared, medium-wave infrared, long-wave infrared, and far-infrared, low contrast, and low spatial resolution; remote sensing images are usually used in space-based observations, which are further divided into single-channel panchromatic images and multi-channel hyperspectral images [14].

The intelligent assessment of college students' mental health can help student administrators understand the changes in college students' mental health, and formulate corresponding treatment plans according to the psychological state of college students. Therefore, the design of intelligent assessment methods for college students' mental health with excellent performance has important practical application value [15]. The mental health status of college students is reflected through the contents of the self-assessment scale. However, with the changes of the times, the psychological characteristics of college students have gradually become more complicated [16], and some of the contents in the

evaluation form are no longer suitable for the description of the current state of college students' mental health. Association rule algorithm is a kind of important algorithm in data mining, which is to find the association or correlation between itemset in a large amount of data, and provide support for management decision-making [17].

2. THE PROPOSED METHODOLOGY

2.1 The Heterogeneous Network Environment

A set of filters of different sizes and numbers are obtained to extract image features, and then their features are input to SVM for training. The overall positioning ability of the target is slightly worse. Therefore, this chapter designs a heterogeneous twinning region selection network with multi-layer feature fusion, referred to as MF-HeSRPN. The dataset needs to be scanned multiple times. The dataset is scanned once every iteration, and when the length of the maximum frequent itemset is N , N scans are required. Data mining is usually faced with massive data, and frequent scanning of these data will occupy a large amount of output of the computer system. DBN is a multi-layer network structure proposed by GEOFFREY E HINTON in 2006. A deep learning network model composed of several unsupervised RBMs and a supervised back-propagation neural network. This algorithm is mainly used in online education.

In order to evaluate the teaching effect in real time, it is necessary to capture the real-time feedback of students. In online education, the only real-time feedback a student has is the student's demeanor. Therefore, it is necessary to take a real-time photograph of the student's demeanor. During training, the RBM can be trained layer by layer from low to high to extract data features, and then the output of the last layer of RBM is used as the input of the BP neural network. Using a power function can approximate the number of nodes with a certain degree and the relationship between this particular degree. Therefore, the network not only has many nodes with relatively small degrees, but also has a few nodes with very large degrees without an obvious characteristic scale. Therefore, the phenomenon that the degree distribution of such nodes exhibits a power-law characteristic is called "scale-free characteristic".

First, build a sparse autoencoder model and divide the training set into different subsets, which are input into SAE in batches. After the network performs a forward propagation, the updated weights and biases are obtained, and the optimal solution of the weights and biases is found through repeated iterations. When the accuracy meets the requirements, the iteration is stopped. The input of image matching is the template image and the image to be matched, and the dataset should cover a variety of interference factors that appear in image matching. This paper selects three different datasets: public detection datasets, public tracking datasets, and self-calibrated datasets. In this paper, the same target image of the test set is copied into two copies, the template map set and the search map set. During the matching test, the images with the same name are removed from the two sets for cross-matching testing.

2.2 The Student Mental Health Cloud Assessment Algorithm

According to the differences in the degree of mental health of college students, the psychological state indicators of college students are divided into three different gray categories: good,

ordinary, and morbid. For each indicator shown in Figure 2, the specific quantification of its score is implemented.

The detailed description is as follows. In order to test the effect of mental health intelligence assessment of college students, students in five colleges and universities were selected as the research objects, and they were numbered by A to E respectively. Similarly, we can use a similar set of minutiae points containing skeleton shape geometric information to represent veins. Position correlation has a large improvement in matching accuracy. The experimental results of training sample size impact analysis and original image matching show that the network has a greater demand for data samples. Finally, compared with the deep learning and traditional matching algorithms NCC and HOG, it proves that the anti-interference ability of deep learning is much stronger than that of traditional algorithms.

3. CONCLUSIONS

In this paper, three sets of experiments are used to verify the influence of the number of layers, the number of hidden layer nodes, and the learning rate on the detection results, and the optimal DBN parameters are determined. Finally, the DBN fake finger detection model proposed in this paper is tested on the test set. The intelligent assessment of college students' mental health is a research hotspot in the field of college student management.

In order to obtain more accurate intelligent assessment results of college students' mental health, an intelligent assessment method of college students' mental health data mining is proposed, which evaluates and analyzes every minute of the teaching process. Real-time teaching evaluation is realized, and teaching evaluation effect can be checked immediately in a short time.

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Intelligent Scenario of Sports Outward Training Based on Enhanced Multimedia Area Network Technology

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Abstract:Outward Bound training is an important teaching method, which complies with the requirements of the reform of the physical education curriculum. It can not only cultivate students' interest in learning, stimulate students' potential, but also cultivate students' team awareness. After Outward Bound training enters our country. The ability of the courseware is not high, and the content, text and pictures of the courseware need to be strengthened. Most of the courseware uses simple PPT software. It provides help for the teaching of physical education teachers in colleges and universities, systematically manages the information of physical education teaching, and improves physical education teaching. efficiency, and enrich the resource sharing of physical education teaching in colleges and universities. An overall analysis of the needs of various aspects of college physical education and teaching management.

Keywords: Intelligent Scenario, Sports Outward Training, Enhanced Multimedia Area Network

1. INTRODUCTION

Lesson preparation is a very important part of the whole teaching work. Under the conditions of the established teacher level [1], student base and textbook content, whether teachers can prepare lessons well is the premise of whether they can teach well and quickly improve the teaching level. link. Teaching plan is a specific plan for teachers to implement teaching activities [2]. The core of educational informatization is teaching informatization and management informatization. Teaching informatization is the combination of teaching process and information technology, thereby greatly improving teaching efficiency and teaching level [3].

The informatization of teaching management means that most of the work in the process of educational administration is carried out in the context of the information system [4]. The development of teaching technology in the field of education has a huge impact. With the continuous development of network technology and the continuous improvement of the application level [5], how can physical education teaching technology be effectively developed in combination with network technology, so as to improve teaching efficiency in a timely manner, reduce teaching costs, and cultivate modern high-quality talents for the society [6]. In recent years, With the strong support of Wuhan Jiang'an District Education Bureau, relevant government departments and the society, all middle schools have undergone great changes in hardware facilities, which has laid a good material [7] foundation for the introduction of modern educational technology, which is worthy of our attention. What is the effect of the application of modern educational technology [8] in the physical education classroom of middle schools in Jiang'an District, Wuhan city [9].

Outward Bound training extends the basic knowledge, basic technology, basic skills and other content taught in physical education classes [10] in high schools to nature, which is of great significance for promoting students' all-round physical and mental development. If students can develop team spirit in school physical education class. It will not only greatly improve [11] the mental health and social adaptation of the students, but also be of great help to the future university life

and employment. Ordinary high school physical education: It is a physical exercise as the main means, physical and health knowledge [12], functions and methods as the main learning content, with the main goal of cultivating the core literacy of physical education and health disciplines of high school students and improving the physical and mental health of high school students [13]. course. It plays a pivotal role in whether you can take a good class.

Today, with the promotion of modern educational technology, online courses and CAI courseware have become a trend [14], and the Internet has provided us with a lot of materials. As the strategist of education and teaching, teachers should use network and multimedia resources to design. Foreign governments have always attached great importance to education informatization [15]. With the strong support of various governments, many universities and training institutions have established teaching that meets their own requirements. management information system [17], and built various platforms on the basis of the educational administration information system, thus building an integrated digital campus environment. in the initial stage [18].

However, with the continuous development of network technology and the active improvement of physical education courses [19], the use of network technology in college physical education teaching will be effectively promoted, and related teaching research will also be continuously strengthened. Canada, France [20], Germany, etc. In contrast, several countries where the development of educational technology has gradually matured and perfected have a very rich development history and have received extensive social and government attention [21]. In the era of powerful network information, modern educational technology has become an inevitable trend of global educational reform and development. Arrangement [22], processing, careful planning, and production of excellent multimedia courseware and excellent online courses, as a model of high-quality courses, should play a role in this regard. This paper hopes to investigate the multimedia courseware of online courses of high-quality physical education courses in colleges and universities in Hunan province [23].

2. THE PROPOSED METHODOLOGY

2.1 The Enhanced Multimedia Area

Network Technology

The courseware chapters are closely related to the content of the teaching plan. A good courseware should be centered on the content of the teaching plan, highlight the key points and difficulties of teaching, and combine multimedia materials to simplify the difficulties and key points, which will help students to deepen their understanding and inspire students. Students are interested in learning and improve the efficiency of teaching and learning.

In the front-end interface of the browser information system, users can enter search keywords and view search results. Users can interact with the Web server in various ways: filling in information forms and filling in search keywords. After comparison, we found that education The more advanced physical education teachers have a lot of understanding of modern educational technology, and their learning ability is very strong. It can be concluded that we should encourage physical education teachers to continue their later studies to improve their educational level, or to regularly train and learn new knowledge to strengthen their own teaching. ability. The application of network technology to physical education in colleges and universities can also improve the initiative of students to learn and change the status quo of students' passive acceptance of knowledge. These have a positive effect on the cultivation of their own innovative cooperation spirit and the future development of the information age for contemporary college students. Make full use of multimedia CAI to assist teaching, expand students' knowledge with a large amount of information, and stimulate students' desire to study.

2.2 The Intelligence of Sports Outward Bound Training

Compared with the traditional mode of physical education, the application of network technology in college physical education has more intuitive and efficient teaching effects. The rapid development of network technology has brought new elements to our college teaching, providing technical support and guarantee for the update and improvement of current college physical education teaching methods.

The application of network technology in college physical education teaching is similar to the traditional mode of physical education teaching It has a more intuitive and efficient teaching effect. The rapid development of network technology has brought new elements to our college teaching, providing technical support and guarantee for the update and improvement of current college physical education teaching methods. Advocate a variety of teaching methods. The development training requires students to participate in person. In the process of communication and practice, the role of the "master" is fully exerted, and the passive state changes to the initiative, mobilizing students' enthusiasm for participating in classroom teaching, enriching physical education teaching methods, and allowing students to learn in the new Learn more comprehensive knowledge in teaching mode. Virtual reality and artificial intelligence are hardly used. Therefore, middle school physical education teachers generally use network, multimedia, video, and audio methods in physical education to provide a good foundation for the use of modern educational technology in physical education.

2.3 The Intelligent Scenarios of Sports Outward Bound Training

The design of courseware interface is not only a science, but also an art. The primary task of courseware production is to plan the key points and difficult points of the teaching content, but after the content is determined, the visual perfection cannot be ignored. At present, the physical education colleges and universities across the country are generally greatly influenced by modern educational technology. The transition to junior high school will also have a certain impact on physical education teaching and physical education teachers. We must make full use of the advantages of modern educational technology to make junior high school sports. The classroom effect has been improved, the teaching quality has been improved, and the students have further developed their physical and mental health in an all-round way.

Communication is the process of transmitting and feeding back thoughts and feelings between people and between people and groups, in order to achieve consensus on thoughts and smooth feelings. Many problems in life and study are caused by poor communication. How to recognize the importance of communication and learn communication skills such as "talking and laughing" will be greatly reflected in communication projects. Applying network technology to physical education in colleges and universities needs to be designed according to the goals and content of physical education in colleges and universities. The application of network technology can make the teaching effect more accurate and intuitive, promote students' interest in autonomous learning, and stimulate students' sense of innovation and cooperation. In order to better improve the teaching effect and quality. The client sends the data information needed by the user to the application server through a common browser, and the application server sends a request to the database server through the application program and the intermediate group. After the database server responds, it returns to the client browser for execution.

3. CONCLUSIONS

The establishment of physical education network platforms in colleges and universities has facilitated physical education teachers to guide students' extracurricular physical education learning, and effectively extended the teaching in physical education classrooms. That is, the situation of students' mastery of skills, while the development training requires teachers and students to evaluate each other, and between teachers and teachers.

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Topic 1: The application of "MOOC+teaching mode" in college physical education courses - take the tennis course of Nanguo Business School of Guangdong University of Foreign Studies as an example. No.: GDJG201902, Guangdong Higher Education Teaching Reform Project in 2019.

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Multi-dimensional Optimization of Outward Bound Training Courses in Chinese Colleges with Further Discussions

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Abstract: This paper studies the multi-dimensional optimization of outward bound training courses in Chinese colleges with further discussions. Training plays an important role in physical education teaching, and teachers should follow the requirements of quality education and take the new curriculum reform as an activity to develop comprehensive quality development curriculum construction and optimization when carrying out teaching activities. Expansion training with its "first to know" experiential learning approach, breaking the traditional sports teaching model, by allowing participants to experience activities to achieve the purpose of stimulating potential, refining the will, strengthening the body, as well as further melting the team. We designed the novel ideas and consider the novel applications to improve the performance of the traditional teaching modes.

Keywords: Multi-dimensional Optimization; Outward Bound Training; Training Courses; Chinese Colleges; Further Discussions

1. INTRODUCTION

Outward bound training is an innovation and improvement of traditional teaching in college physical education teaching, so it is necessary to gradually enrich the content of training, so that training can gradually become a skill for college students, so as to achieve the effect of applying what they have learned. At the same time, sports equipment courses are indispensable in all fields of physical education, and are the only physical education courses that can effectively promote the healthy growth of students' body and mind. College sports equipment has an important function of strengthening the body and helps to continuously improve the physical health of students.

Based on the literature analysis, we can understand that the current educational model is focused on the teaching from the teachers' side, which means, the students can just understand the information from the tutors' mind and the efficient will not be satisfactory. Practice has proved that this traditional teaching mode can no longer meet the requirements of the current society and also students themselves, and emerging outward bound training courses can solve this problem well.

Expansion training with its "first to know" experiential learning approach, breaking the traditional sports teaching model, by allowing participants to experience activities to achieve the purpose of stimulating potential, refining the will, strengthening the body, as well as further melting the team. In order to achieve the common improvement of the students' physical and psychological quality, we must pay attention to the students' learning quality and quality of life.

Expanding training is a good way to improve the students' learning enthusiasm and better guide students to participate in physical education activities with a more positive attitude. Under the background of the reform of physical education teaching in colleges and universities, the traditional teaching mode can no longer meet the actual development needs of college students in all the aspects. To change this situation, teachers must pay attention to the integration of the extended

training in teaching. As the notation, in the figure 1, we show the basic example of the Outward Bound Training Courses.



Figure. 1 The Outward Bound Training Courses Sample (URL: <https://www.outlife.in/outbound-training.html>)

2. THE PROPOSED PERSPECTIVES

2.1 The Challenges of the Traditional Education Modes

At present, physical education teachers pay more attention to the teaching of sports skills in teaching content, emphasizing the improvement of the physical fitness, and also one-sidedly adopt the "cramming duck" teaching method. Most schools have relatively large limitations in the application of teaching models, and the teaching methods used are relatively simple, and teachers are directly responsible for the development of the teaching activities as the leaders of teaching activities.

According to the literature analysis, we can see that "Teacher-centered theory" obviously cannot meet with the development needs of students. Therefore, students should give full play to their subjectivity and support students to carry out the active exploration and creative learning.

It is like a humanistic education concept. In fact, the "teacher-centered theory" hides and it is still necessary to focus on the inheritance of cultural spirit and educational concepts. In addition, under the influence of the obsolete teaching mode, students with poor motor ability are very easy to be ignored by the teachers and thus cannot make their bodies work in

physical education classes and students are easily ignored by teachers and thus cannot make physical physical fitness in the core physical education classroom. Many physical education teachers in modern colleges and universities are influenced by traditional educational concepts, which leads to their single teaching content and also methods, which seriously restricts students' learning interest and initiative. From the analysis of the limitations of the outward bound training, as a relatively advanced teaching concept, it is not without flaws, because there are a large number of students in each class.

2.2 The Suggestions and Further Discussions

The selection of college physical education textbooks is also promoted by the outward bound training to be rich and also flexible. Coupled with the innovation of textbooks, students will gradually accept sports culture, so as to achieve the effect of teaching through entertainment. We should lay a solid foundation for outward bound training through reasonable design of teaching content. When formulating a teaching plan, it is necessary to carefully consider whether the teaching content is safe and feasible. Each influencing factor should be considered, and the reasonable design of the teaching content should be realized as much as possible, so that all college students can effectively improve the efficiency of the college physical training and learning and make the physical training teaching mode in colleges and universities more in line with the physical training quality characteristics of college students.

Expanding sports training activities will inevitably have high safety risk, so it is necessary to then strengthen the physical education teachers at all levels of colleges and universities to expand sports training safety production management. Hence, we have the following suggestions.

(1) Our teachers should uphold the following core point of view: students improve their ability to adapt to society and comprehend the principles of life in the general collective, in cooperation, in conflict, and in the process of solving the problems. Stimulate the potential of imagination and perfect a healthy personality.

(2) The new requirements for the physical education teachers during the shared discussion phase are mainly reflected in their ability to lead. In this phase, the teacher should learn to listen to each student's speech and at the same time should actively participate in it, catching any subtle psychological changes in the students and also using correct and positive attribution theory to further guide them to arrive at scientific empirical knowledge.

(3) In the process of physical education teaching, the level of teachers will have an important impact on the quality of teaching and the learning effect of students. In order to fully reflect the role and value of the outward bound training in physical education teaching, schools should organize teachers to carry out certain training, thus ensuring the quality and also the safety of sports development training.

3. CONCLUSION

This paper studies the multi-dimensional optimization of the outward bound training courses in Chinese colleges with the further discussions. In our sports development courses, we not only let students learn sports knowledge in a happy way, but also have an impact on students' personality.

Therefore, physical education teachers should pay attention to the inheritance of the sports culture. In order to deepen the

impression of students, they can typicalize sports activities and also artistic. Hence, this paper gives the novel suggestions for solving the meeting challenges. In the future, we will consider the further integrations of the model to improve the classroom performance with the integration of multimedia, computer system and VR technologies.

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2.Research on the implementation status and development countermeasures of outward bound training courses in private colleges and universities in Baiyun District. Project No.: 21-005B, 2021 University level scientific research project of Nanguo Business School of Guangdong University of Foreign Studies.

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Big Data Intelligent Analysis Algorithm Assisted Intelligent Financial System and Integrated Platform Realization of International Education Path

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Abstract: This paper studies smart financial decision support from the perspective of big data, which has both theoretical and practical significance. This paper firstly adopts the Apriori algorithm to calculate the degree of association between financial projects and financial data business, and completes data mining and analysis; This puts forward higher requirements for higher education in our country. The author mainly analyzes the integration of civil engineering majors into international education under the trend of internationalization of higher education. Starting with the main bottlenecks faced by enterprises' financial management, this paper introduces the emerging enterprise financial management solutions and development directions driven by the background of big data.

Keywords: Big Data Intelligent Analysis, Intelligent Financial System, Integrated Platform Realization, International Education Path

1. INTRODUCTION

With the rise of my country's comprehensive strength, my country's development has higher requirements for the quantity and quality of talents. This requires our country to adjust the current education pattern and develop towards the construction of first-class universities and first-class disciplines [1], so that China's higher education will continue to advance in the direction of international education. The degree of internationalization is getting higher and higher. The internationalization of higher education in Shaanxi is constantly strengthening [2]. The forms of internationalization include: (1) The establishment of Sino-foreign cooperative educational institutions. For example, Xi'an Jiaotong University and the University of Nebraska-Lincoln (uNL) jointly established the first overseas Confucius Institute (uNLcI) [3].

The international exchange of traditional Chinese medicine will usher in unprecedented opportunities. There are many countries along the Silk Road, and the international area is vast. The cultures, religions and customs of different countries are very different and diverse. For Chinese medicine to go global and seek common development, mutual recognition is the foundation. Monitor and reduce corporate financial risks, make financial decisions, and more [4]. Therefore, it is of great significance to improve and optimize the financial decision support system for enterprises to improve the level and quality of financial management, comprehensive market competition, and profitability. With the development of big data, many new enterprise data information platforms are entering the vision of enterprises [5].

This also means that the financial management of Chinese enterprises needs to keep pace with the times and grasp the overall development trend of financial information management in the future, so as to occupy the commanding heights of digital informatization and provide stronger impetus for the development of enterprises [6]. In order to avoid this shortcoming of the system and fully tap the

diversified value of the financial system, many technology companies at home and abroad have made a lot of attempts. The four sections of enterprise management are capital flow, logistics, business flow, and information flow. As an organization's financial department, the most important thing is the management of capital flow, which not only records and reflects the information flow of the organization, but also supervises the logistics and business flow [7].

For new undergraduate colleges, is it necessary to copy the development model of traditional old universities? Is it suitable for the traditional model of a research university? Is this kind of convergence to the first-class key universities in China feasible [8]? From the perspective of the "topography" of the new undergraduate college itself the promotion provides a rare strategic opportunity [9].

Since China joined the WTO in 2001, China's economic and cultural development has been increasingly in line with international standards [10], and traditional Chinese medicine culture has been well known and gradually recognized by the world. and Challenges"52 and "The Palgrave Asia Pacific Higher Education Handbook" co-edited by Christopher Collins of Ritsumeikan Asia Pacific University (APU) in 2016 [11], etc. 53 These works are excellent works that are excellent representatives of the research on higher education and higher education internationalization in the Asia-Pacific region [12].

However, the lack of international talents in the field of civil engineering has always been one of the important factors restricting the further improvement of my country's civil engineering field in the international voice. Compared with those large international contractors [13], Chinese contractors still have a lot of room for improvement, and there is a clear gap between the two. Student exchanges, such as teacher exchanges between Shaanxi higher education institutions and foreign cooperative institutions, exchange student programs, etc [14]; (5) Global enrollment, such as Xi'an Jiaotong University recruiting international students from 86 countries:

(6) Course cooperation, such as the undergraduate course cooperation project between Xi'an Jiaotong University City College and the University of Nebraska-Lincoln in the United States. Only by appreciating, identifying with each other, and participating in dialogue between nations can they expand the space for self-development from differences and trigger common innovation vitality [15].

Traditional Chinese medicine culture is a cultural system involving life, disease, health, etc. in traditional culture. Traditional Chinese philosophy [16]. Corporate finance is at an important node in digital transformation under the background of VUCA. The impact mainly involves the following three aspects. First, enterprises generate a large amount of data in the daily production and operation process, which provides enterprises with good conditions for data transformation [17].

The financial department of the enterprise constructs its own unique information collection, processing and output mode only according to the accounting activities itself and cannot take into account the requirements of other departments [18]. Therefore, the information provided can only meet the needs of the financial department for information processing, but not at the same time. Department management needs. In this environment, financial managers cannot better perform their own management and control functions [19].

2. THE PROPOSED METHODOLOGY

2.1 The Big Data Intelligent Analysis Algorithm to Assist Intelligent Financial System

An international talent training model with innovative ability. Innovation is an inexhaustible driving force for development. For international talents, innovation ability is particularly important. Under the current internationalization background, innovation ability has become one of the important factors that determine the development height of enterprises and individuals. Problems caused by the external environment of Shaanxi higher education institutions. Shaanxi is located in the inland region of the whole of China and is located in the relatively backward northwest region. Therefore, this paper proposes the following establishment process for enterprises, in order to give some enlightenment to enterprises. When conducting financial analysis, enterprises can only rely on these "after-the-fact" records to adjust their business and operating plans, which may result in the growth of enterprise interests information loss and waste. Usually, the financial sharing system is a new type of financial service center that uses a variety of Internet technologies as the underlying components, and takes the normative and procedural principles of business processing to reduce repetitive labor and human subjective judgment. Its basic structure is shown in Figure 1. At the same time, the financial data obtained by this process often has a large "delay", which makes it impossible to effectively monitor and adjust the financial status of the enterprise in a timely manner, so that the enterprise misses the opportunity for development. The current status of financial management is as follows: First, the financial system is separated from the business system. Financial data and other business data are distributed across different systems and storage.

2.2 The Smart Financial System and International Education Path

Internationalized and open talent training model. The cultivation of international and open talents is also an effective means to realize the internationalization of civil engineering education. We live in an open international environment, and talents are the main force driving development. Only by ensuring that these civil engineering talents have a long-term vision The minimum value is 197, the maximum value is 4030, and the minimum out-of-box value of the shady storehouse is 1657 and the maximum value is 8516, because the quantity distribution tends to be polarized. In line with the common mode of general distribution centers, in the further planning, orders with few orders and large shipments can be regarded as key management, from the connotation of creating an international brand of Chinese medicine education, to increase reform efforts, and strengthen the cultivation of human resources, Promote the integration of teacher education and college education, explore the cultivation of high-end talents in traditional Chinese medicine, and improve leading talents.

When the objective function Ob reaches the minimum value, the core of the financial intelligence system (platform) is to collect data, use a model or a certain algorithm to calculate, and then present it in the form of visual charts, reports, etc., so that analysts or managers can timely Identify problems in operation and provide feasible solutions in a timely manner. With the development of business activities, financial data has been in a dynamic process of change, so how to efficiently collect data when making financial decisions is an urgent problem that needs to be solved. Big data technology optimizes the data collection work well and greatly shortens the collection time.

2.3 The Integrated Platform Realization of International Education Path

The advantages of talent reserve are faced with the threats of cultural background differences and the acceptance of traditional Chinese medicine, as well as the disadvantages of weak cultural core competitiveness and unilateral efforts and lack of interaction. The system mainly serves the management. It not only reflects the overall financial status of the company, but also provides objective and rigorous financial analysis reports. It also optimizes the information environment for the management to make decisions. Therefore, the system should involve the calculation and analysis of financial risk indicators, cost, cash flow, etc. In the era of the data economy, enterprise management is accelerating its evolution from ERP to EBC, emphasizing customer-centricity and business-driven efforts to reconstruct the digital combat power of enterprises.

Relying on the data insight, prediction, and risk control capabilities brought by big data technology, traditional finance is expected to change its relative independence and closed characteristics. In order to verify the effectiveness of process automation technology, neural network and K-means clustering algorithm and Feasibility, based on the actual financial system, the necessary simulation and analysis of these technologies are carried out in this paper. It should be noted that since the process automation technology and the neural network algorithm are comprehensively used in the execution of the K-means algorithm, this paper does not simulate the former alone.

3. CONCLUSIONS

This paper puts forward the risk management technology of enterprise financial accounts, which realizes the automatic execution of highly repetitive processes and the accurate evaluation, discrimination and prediction of account risks. However, the functions implemented by the technology proposed in this paper are still relatively single. From the perspective of the enterprise, discuss and build the financial intelligence system module; fourth, through the introduction of ideas, the financial work mode can be changed, and the organic integration of financial activities and business activities can be promoted, so that the value of data can be fully tapped. The internationalization of the teaching staff is not high. The vast majority of teachers and students believe that it is a glorious mission, a heavy responsibility, and a long way to go to cultivate high-quality international talents in the new normal undergraduate colleges.

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Construction and Optimization of Modern Education Management System based on Multi-Dimensional Informatization

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Abstract: Construction and optimization of modern education management system based on multi-dimensional informatization is studied in the paper. For the education management of colleges and universities, its main goal is to cultivate students' ability to live independently, so that students can actively adapt to future life and work. The method can timely obtain some suggestions and opinions of parents and students on school management, which can greatly improve the management quality and efficiency of the whole school. Hence, our study then uses the novel multi-dimensional informatization ideas into the modern education management system to then achieve the better performance.

Keywords: Construction and optimization; modern education; management system; multi-dimensional informatization

1. INTRODUCTION

Education management informatization is an important part of the education informatization, and it is a powerful means to improve school management efficiency and build a modern campus. The most important content of school informatization is actually to realize the informatization of the education and teaching. In terms of school informatization construction, it is necessary to first implement the construction of the school's website. Teachers and parents can use the school's website to learn about various information about the school. The school can also publish the various school activities and examination-related information through the website.

The method can timely obtain some suggestions and opinions of parents and students on school management, which can greatly improve the management quality and efficiency of the whole school. Schools are the key components of our country's education system. Core archives management is an important part of campus work. Under the new situation, it is necessary to realize changes and independent innovations in management methods and the core concepts. Especially, the finance management is the key aspect. With the continuous reform of the education system, high school education is slowly popularizing, and the enrollment scale of schools is increasing, which also leads to the increasing workload of school financial management.

The financial management work itself is characterized by the complex and trivial, wide range of the design, etc., and the traditional financial management model has serious lag and uncertainty, which seriously restricts the development of the financial management work. The informatization construction of financial management is an important foundation of modern management. Under the development of our country's market economy, the school's financial management work must constantly adapt to the needs of reform and establish a modern concept of financial management. Accordingly, in the

figure 1, the Modern Education Management System as the sample is presented as the background.

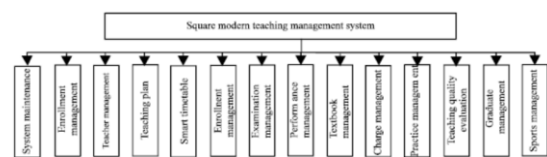


Figure. 1 The Modern Education Management System
(<https://scialert.net/fulltext/?doi=itj.2014.340.346>)

2. THE PROPOSED METHODOLOGY

2.1 The Management System based on Multi-dimensional Informatization

Establishing a multi-dimensional teaching monitoring mode to manage the teaching process, implement daily inspection, evaluation, and also feedback, facilitate better processing and adjustment, and then effectively assist the establishment of the core system. Most schools in our country have gradually used information management and also the professional archives management system, but when using it, they did not do a good job of then classifying the data information, and only digitally entered the core information content of the archives into the computer, which caused When viewing data information, it will be affected by other archives, so the efficiency of viewing information will also be significantly reduced.

By improving the level of teaching and learning management The school's promotion rate can be effectively achieved through improvement of teaching management. Information technology can effectively improve the school's teaching resources library to meet the specific requirements of the educational development. Moreover, number of educational resources should be increased to ensure the number of educational resources should be increased to ensure that they match the needs of the society, and the curriculum should be

developed in a way that meets the process of developing the curriculum, we should conform to the social situation and also make timely adjustments to the relevant content. In terms of scientific research, we can cooperate with other schools, share resources with the help of the network, and comprehensively improve the information management level of primary school teachers. Making full use of file management is for better teaching, and for the teachers, students and also their school administrators to refer to relevant activity materials and data information.

2.2 The Construction and Optimization of Modern Education Management System

As an important part of the philosophy and social science, the discipline of educational management should actively explore the "three systems" and do a good job in its construction. We consider integrating the concept of the humanism into the teaching management of colleges and universities. The main purpose is to innovate and optimize the traditional passive teaching mode, and at the same time transform the passive teaching mode into an active learning mode.

Scholars believe that the passive teaching mode is beneficial to students' learning interest and enthusiasm is not helpful. The integration of humanistic care in student management can better to the actual needs of students and to carry out targeted educational work according to the characteristics of students. This is not only an important measure to promote the students' overall development, but also a fundamental requirement to cultivate talents of the new era.

This is not only an important measure to promote the overall development of students, but also a fundamental requirement for cultivating talents of the new era. Therefore, teachers should teach students in accordance with their aptitude, instead of using uniform standards to shape students with different personalities, they should adopt different educational methods for different students, and change from "managing students" to "educating students".

Finally, pay attention to the spiritual needs of students and teachers should not only pay attention to the material needs of students, but also pay attention to the spiritual needs of the students, especially the ideological dynamics of students. The informatization is the basis of the application of big data technology and also determines the transformative nature of education management. Through the application of big data, the quality of education management can be significantly improved within a period of time, the quality and efficiency of the running schools and education can be improved, and the management model can be optimized.

3. CONCLUSIONS

Construction and optimization of the modern education management system based on the multi-dimensional informatization is studied in the paper. College management is the key to promoting the development and progress of the colleges and universities, and it is also the core content of education and teaching.

Therefore, during the teaching practice, college education management is related to many aspects of the school. In the process of carrying out student education management, teachers are required to implement and implement the concept of humanistic education according to the teaching reform proposed by colleges and universities, and fully respect the dominant position of students in the classroom. Furthermore,

the information model will be integrated for the construction of the system.

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Experimental Study of Energy Loss in a Stepped Spillway Equipped with Inclined Steps in the Nappe and Skimming Flow Regimes

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Abstract: Scrutinizing the considerable flow energy in a spillway plays a significant role in maintaining downstream dam safety, and due to this fact, the dimension of the stilling basin will be enormously reduced, and from an economical point-of-view, construction costs will dramatically reduce. This phenomenon may even result in the removal of the stilling basin. A stepped spillway is one of the best structures for this purpose. In this experimental study, steps in the stepped spillway are equipped with inclined steps with various slopes, to find out how they influence their relative energy loss. Results illustrate that using inclined steps, considerably affect both the nappe and skimming flows; however, the energy loss in nappe flows is greater than that in skimming flows. Analyzing the results of experimental tests side-by-side with the results obtained from other researchers makes clear that the method used in the current investigation is more efficient than previous ones.

Keywords: stepped spillway; nappe flow; skimming flow; energy loss; inclined step

1. INTRODUCTION

The remnants of ancient structures show that stepped spillways have been used for 3500 years. As a matter of fact, these spillways were not only used as a dissipater but had various other applications. As a case in point, between the 16th and 18th centuries, they served decorative and aesthetic purposes [1]. In the early twentieth century, these spillways became practically unused and were replaced with other options due to their long construction time, high maintenance cost, and low hydraulic efficiency. However, in recent years, due to technological advances and the use of the R.C.C. technique, the construction time for spillways and their maintenance cost has been dramatically reduced and their hydraulic efficiency has been significantly boosted. Due to the abovementioned reasons, the tendency to reuse spillways has interestingly increased. Furthermore, with the utilization of these spillways, the energy of the flow is substantially dissipated by the time of the arrival to the toe of the spillways. As a consequence, the size of the stilling basin is remarkably reduced.

In stepped spillways, the flow pattern does not remain constant as the discharge is changed. For instance, in low-rate flow, nappe flow, in high-rate flow, the skimming flow and between these two flow regimes, a transition flow is observed. One of the most important parameters in energy dissipation is the drop number which is q^2/gHT^3 ; where q = flow discharge per channel width; g = gravity acceleration and HT = total drop height. Investigations (Peyras et al.1992; Israngkura and Chinnarasri 1994) show that by increasing the drop number the relative energy loss ratio decreases. [8], [10]

Some relevant equations concerning the estimation of the dissipation energy rate in various flows in horizontal steps have been proposed by different researchers.

2. THE NAPPE FLOW REGIME

Among the proposed equations, the equations belonging to Chanson, Chamani, and Fratino and Rajaratnam are considered to be the best for nappe flow.

The following equation was proposed by Chanson (1994) to determine the dissipation energy rate in nappe flow, along with the hydraulic jump in stepped spillways [1]:

$$\frac{\Delta H}{H_{max}} = 1 - \left[\frac{0.54 \left(\frac{d_c}{h}\right)^{0.275} + \frac{3.43}{2} \left(\frac{d_c}{h}\right)^{-0.55}}{\frac{3}{2} + \frac{H_{dam}}{d_c}} \right] \quad (1)$$

Where H_{max} =total energy ($H_{dam}+3/2hc$); ΔH = energy dissipated in the length of the chute; d_c =critical depth of flow (m); H_{dam} = height of dam and h : height of step (m).

Moreover, the equation proposed by Fratino and Colleagues (2000) pertaining to nappe flow is as follows [7]:

$$\frac{\Delta H}{H_{max}} = 1 - \frac{H_r}{H_{max}} = 1 - \frac{y_1 + \frac{1}{2} \frac{y_c^3}{y_1^2}}{H_d + \frac{3}{2} y_c} = 1 - \frac{\lambda + \frac{1}{2} \lambda^{-2}}{\frac{H_d}{y_c} + \frac{3}{2}} \quad (2)$$

Where λ is the dimensionless parameter and shows the relation between y_1 and y_c .

$$\lambda = \frac{\sqrt{2}}{\frac{3}{2\sqrt{2}} + \sqrt{\frac{h}{y_c} + \frac{3}{2}}} \quad (3)$$

Chamani and Rajaratnam (1994) also presented the subsequent equation to obtain the dissipation energy rate in all nappe flows in stepped spillways [4]:

$$\frac{\Delta H}{H_{max}} = 1 - \frac{\left\{ (1 - \alpha)^N \left[1 + 1.5 \left(\frac{h_c}{h_s}\right) \right] + \sum_{i=1}^{N-1} (1 - \alpha)^i \right\}}{N + 1.5 \left(\frac{h_c}{h_s}\right)} \quad (4)$$

Where α = coefficient of energy loss for each step and N = the number of steps.

$$\alpha = a - b \log \left(\frac{h_c}{h_s} \right) \quad (5)$$

$$a = 0.3 - 0.35 \left(\frac{h_s}{l_s} \right) \quad (6)$$

$$b = 0.54 + 0.27 \left(\frac{h_s}{l_s} \right) \quad (7)$$

Where l_s = horizontal step length (m).

All material on each page should fit within a rectangle of 18 x 23.5 cm (7" x 9.25"), centered on the page, beginning 2.54 cm (1") from the top of the page and ending with 2.54 cm (1") from the bottom. The right and left margins should be 1.9 cm (.75"). The text should be in two 8.45 cm (3.33") columns with a .83 cm (.33") gutter.

3. SKIMMING FLOW REGIME

Chanson presented an equation to calculate the estimation of the dissipation energy rate in the skimming flow in stepped spillways [1]:

$$\frac{\Delta H}{H_{max}} = 1 - \frac{\left(\frac{f}{8 \sin \theta} \right)^{\frac{1}{3}} \cos \theta + \frac{1}{2} \left(\frac{f}{8 \sin \theta} \right)^{-\frac{2}{3}}}{\frac{H_D}{h_c} + \frac{3}{2}} \quad (8)$$

Where f can be obtained as follows:

$$\frac{1}{\sqrt{f}} = 2.43 - 0.2676 \ln \left(\frac{h_s \cos \theta}{D_H} \right) \quad (9)$$

Where D_H = hydraulic depth of flow. That equation is applicable for mild slope chutes. ($\theta \leq 20^\circ$)

Another equation which can be used to determine the dissipation energy rate in the skimming flow regime is Chanson's equation, which can be used to calculate the energy remaining at the end of the chute. [1]

$$H_{res} = y \cos \theta + \frac{q^2}{2gy^2} + z \quad (10)$$

Where y = depth of fresh water and H_{res} = energy remaining at the end of the chute.

The following equation is used to calculate y :

$$\frac{y}{h_c} = \sqrt[3]{\frac{f}{8 \sin \theta}} \quad (11)$$

f is calculated from (9).

The following equation has been also offered by Chamani and Rajaratnam to estimate the energy remaining at the end of the chute. [5]

$$H_{res} = y_m \cos \theta + \frac{u_m^2}{2g} + z \quad (12)$$

Where y_m = mixed depth (air and water); u_m = mixed flow velocity and z = height from the baseline.

Among all investigations conducted on spillways; the research performed by Chaturabul (2002) can be singled out. [6]

Chinnarasri and Wongwises examined the inclination of the step brink to determine the increase in energy loss in 2004. [3]

4. ENERGY DISSIPATION

4.1 Model Specification

Recent research has been conducted at the Institute of Water Research on a stepped spillway with a scale of 1:15. Steps and walls are made of Plexiglas and have been mounted on the steel structure. Wall thickness is 10 mm. The number of steps is 60. Four steps shortly after the middle of the spillway have been changed. The horizontal length of the steps is 14 cm; the step height is 4.66 cm; and the chute width is 1.33 m. The height of the step inclination to the first step is 5 cm. Measured parameters during the test, including depth, velocity, static pressure imposed on the steps, and pressure fluctuations were tested at four different discharges: 20 and 25 liters per second (the nappe flow regime) and 95 and 100 liters per second (the skimming flow regime).

Water depth, flow velocity, and static pressure has respectively been measured by liminimeter, pitot tube, and piezometer. In addition, to record pressure fluctuations, a transducer has been used. For each piezometer 200 data in seconds 30 seconds have been recorded. To measure the water level in the reservoir, a scale bar has been used and flow discharge has been measured by a thin-plate weir at the end of the downstream chute. The flow that passed over the spillway has been calculated and compared with the discharge rate. Pegram et al. (1999) conducted some experiments on stepped spillways with scales of 1:10 and 1:20 and concluded that models with a scale of 1:20 and higher can represent actual spillway behaviour by Froude number similitude. [9] Considering this, the results of the recent study are applicable for models 15 to 20 times greater than this spillway. Three slopes were used: 5° , 8° and 11° during the current investigation.

5. NAPPE FLOW REGIME

Before applying the changes on the stairs, tests were conducted on the horizontal steps to observe and also calculate the effects of the step incline with the end sill on increasing the energy dissipation rate. Numbers obtained for the dissipation energy rate from the test were 0.5128 and 0.5112, which were derived from the Chamani and Rajaratnam correlation, showing suitable agreement.

Then, changes were applied on the steps and energy dissipation was measured for different slopes and end sills. The results have been presented in Table 1.

The obtained results show that the height, thickness, and upward angle of the end sills, as well as the height of the inclined step, affect the energy dissipation rate.

In this section, the parameter w is used, where w = height of step inclination. (see Fig. 1)

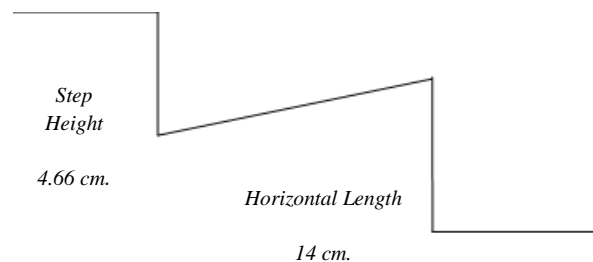


Figure 1. Schematic representation of the step

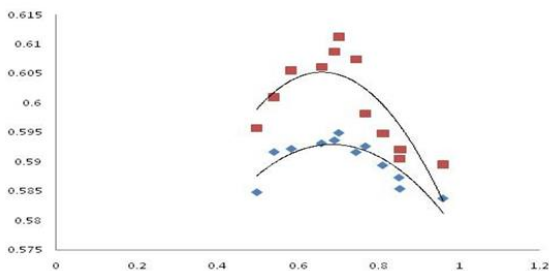


Figure 2. Dissipation energy loss per m for all examined slopes

In the abovementioned figure, the overall conclusion for all slopes have been presented. Additionally, the fitted curve between different points has been shown. As can be seen, the curve is quadratic. If the w/h ratio increases up to 0.7, the energy dissipation rate increases and after that it decreases. This graph suggests that the best ratio for m/h is about 0.7 and an excessive increase negatively impacts the dissipation energy rate.

The reason underlying the decrease in the energy dissipation rate as we increase the w/h ratio to values greater than 0.7 may be the fact that as the slope (w) and the height of the end sill increases the flow jumps from one of the steps. This step plays practically no role in energy dissipation. As a consequence, the energy dissipation rate decreases.



Figure. 3 Step: slope=5°



Figure. 4 Step: slope=11°

The table below presents increased dissipation energy rates within the experimental range:

Table 1. Comparison of energy derived from the test

Energy Loss		

Run number	Test	w/h	Inclined step angle θ (degrees)
1	0.595675	0.4972	5
2	0.600957	0.5401	5
3	0.605484	0.5829	5
4	0.606066	0.6580	11
5	0.608699	0.6901	5
6	0.611219	0.7008	11
7	0.584767	0.4972	5
8	0.591643	0.5401	5
9	0.592178	0.5829	5
10	0.593122	0.6580	11
11	0.593628	0.6901	5
12	0.594898	0.7008	11
13	0.592959	0.5829	5
14	0.584457	0.5829	5

6. SKIMMING FLOW REGIME

Like with the nappe flow regime, the energy dissipation rate is obtained in horizontal steps. The numbers obtained for the dissipation energy rate from the test were 0.3514 and 0.3508 derived from the Chansun correlation, which show good agreement. Changes were then imposed on the steps and the energy dissipation rate was measured for different slopes and end sills. The results are presented in Table 2. The results show that the height, thickness, upward angle of the end sills, and also the height of the step incline, affect the energy dissipation rate slightly.

In this section, the effects of the w/h ratio on the energy dissipation ratio per total energy is examined for the skimming flow.

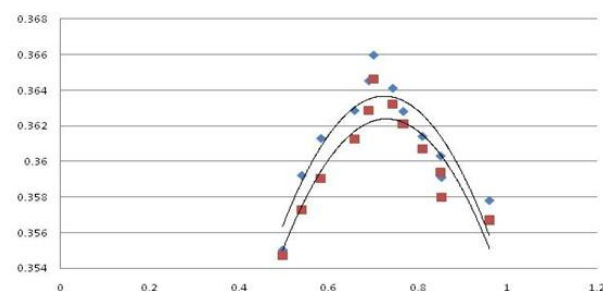


Figure. 5 Energy loss per w for all tested slopes

In Fig. 5, the energy loss per w/h ratio is presented. As with the nappe flow, an increase in the dissipation energy rate continues up to 0.7 and after that it decreases. Once again, this demonstrates that an excessive increase in the w/h ratio w/h negatively impacts the dissipation energy rate.

As a matter of fact, in the nappe flow, some steps have no role in dissipating energy due to the flow jumping over them.



Figure. 6 Step: slope=5°



Figure. 7 Step: slope=11°

Table 2 presents experimental dissipation energy rate increases.

Table 2. Comparison of energy derived from the test

Run number	Test	w/h	Inclined step angle θ (degrees)
1	0.355022	0.4972	5
2	0.359207	0.5401	5
3	0.361285	0.5829	5
4	0.362848	0.6580	11
5	0.364517	0.6901	5
6	0.365962	0.7008	11
7	0.354725	0.4972	5
8	0.357268	0.5401	5
9	0.359039	0.5829	5
10	0.361264	0.6580	11
11	0.362863	0.6901	5
12	0.364622	0.7008	11
13	0.360696	0.5829	5
14	0.358607	0.5829	5

7. CONCLUSION

Our thanks to the experts who have contributed towards development of the template.

To recap, energy loss is associated with the geometry of steps. The results show that the incline of steps dramatically influences energy loss. In both flow regimes, nappe flow and skimming flow with a w/h ratio less than or equal to 0.7, the incremental trend of energy loss can be seen. However, greater than that, it decreases due to the flow jumping over several steps.

Three reverse inclined step angles (5°, 8°, and 11°) have been used in the Nappe and Skimming Flow Regimes for stepped spillways to experimentally investigate the energy loss rate. Four discharges (20, 25, 95, and 100 liters) were used in this research. Two of these discharges belong to the Nappe Flow Regime and the other two to the Skimming Flow Regime. The results indicate that discharge is the most important factor affecting the energy loss rate.

In the 5-degree slope, discharge changed from 20 L/s to 25 L/s and the energy loss rate dropped 20.32%, whereas with a constant discharge (20 L/s), the change in the slope from horizontal to a 8-degree slope increased the energy loss rate only 3.76%. The change in the inclined slope degree minimally impacts the energy loss rate. As Table 2 illustrates, modifying the slope from 8-degrees to 11-degrees only increases the energy loss rate 0.52%.

Current investigation demonstrates that using inclined steps increases the energy dissipation rate approximately 15% on average for nappe flow and 2% on average for skimming. In the skimming flow, changes imposed on steps have no tangible impact on the energy loss.

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Construction of Intelligent Platform for Architectural Engineering Design and Planning Using Building Information Model

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Abstract: With the advancement of science and technology and the development of the times, building information modeling (BIM) technology has broad application prospects in the field of construction. Building Information Modeling (BIM) technology is a relatively advanced visual technology. It can express the overall information of the building in the form of a three-dimensional model through computer integration and analysis, which leads to increased construction difficulty and requires BIM technology to improve its construction quality. Based on this, this article studies and realizes the application of BIM technology in the intelligent construction of building structures from the perspective of parametric design, whole-process construction control, and intelligent information management platform.

Keywords: BIM, Intelligent planning platform, Architectural engineering design, AI

1. INTRODUCTION

The informatization management of intelligent construction projects is a complex and meticulous management work. The scope of management includes contract management, construction technology, construction cost, project quality and safety, and construction schedule. Because traditional information management cannot effectively achieve the integration of information, and the above-mentioned management content is scattered in different functional departments such as overall design, construction team, quality supervision, operation management, etc., it is difficult to coordinate the information of the entire life cycle of the project. Before the installation of construction equipment, it is necessary to review and manage the project contract, including the actual amount of the project, the changes caused by emergencies in the construction process, the supply of raw materials, the use of equipment, the evaluation of the project goals, etc. With science and technology and people's lives with the improvement of the level, architecture is no longer a mere use space with a certain function, and architectural works with complex forms continue to appear [1-6].

In the field of contemporary architecture, architecture is inseparable from the support of information technology from design, construction and even operation. With the complexity of building forms, the increase of super high-rise buildings and large-span spatial structures, building data is also rapidly expanding. These huge amounts of building data that have grown over time can no longer be extracted, analyzed, and managed in a relatively short period of time through commonly used software. Obviously, the construction industry has entered the "big data era". James O'McKinsey's wife McKinsey pointed out: "Data has penetrated into every industry and business function area today and has become an important production factor. People's mining and application

of massive data indicates a new wave of productivity growth and consumer surplus. s arrival." [7-12]

In the history of engineering construction development, the design and construction of ancient buildings were undertaken by different craftsmen. With the development of social productivity, the scale of the project is getting bigger and bigger, the degree of technical complexity is getting higher and higher, and the division of labor between design and construction appears. my country's construction industry is an important material production sector of the national economy with a large overall scale. Under the current engineering construction model, design and construction are combined to a certain extent, but most of them are still in different professions and are undertaken by different units. Under this traditional mode, many problems have been brought about, mainly manifested in: under the influence of separate bidding for long-term design and construction, the entry time and requirements of design and construction units are different, and the design and construction stages cannot be well overlapped. On the one hand, there are problems with the constructability of the design scheme, which leads to frequent design changes; on the other hand, the division of responsibility and authority caused by design defects and construction errors is unclear, causing disputes [13-17].

The amount of information between departments has increased, and exchanges and transmissions are frequent. However, various professional information exchange media have limitations, and there are gaps in information between departments, which leads to the loss of information and it is difficult to integrate and collaborate. There are repeated operations in all aspects of the construction industry; in addition, it is difficult to coordinate information between different productions; these two problems make production efficiency low, resulting in waste of resources and costs. Numerous studies have proposed that the main solution to the inefficiency of the entire engineering construction industry is

to integrate the design-construction-management process to form an integration of design and construction, strengthen the connection between the two most important stages in the life cycle of the project, reduce design changes, and save money cost. The construction industry has entered the "Big Data Era". How to extract these data, manage quantity, and organize information, and provide services for architectural design, construction, management, and even business operations?

How to use big data to solve the problems that engineering construction and designers care about? These have become subjects that urgently need to be studied. Based on the background of the "big data" era, construction production methods also need to be changed, and lead to the generation of intelligent construction ideas and technologies [18-24].

2. THE PROPOSED METHODOLOGY

2.1 The Building Information Model

BIM has the characteristics of the parameterization, and its appearance provides a boost to parameterized design. The structural parameterized design based on BIM technology has the characteristics of parameterization, visualization and coordination. Through the modification of parameters, the design project is processed uniformly, which can effectively shorten the design cycle of the building and improve the communication effect. It is also in the process of intelligent construction. An important part. Parametric design includes not only the information of the geometric model, but also the information of the structural design data. Parametric design based on BIM model.

To complete the analysis and optimization of the structure by modifying the parameter values. Building production and information processing are two inseparable processes. The implementation of design and construction integration realizes the integration of building production process; BIM technology promotes the integration of project information processing process, and BIM-based design and construction integration construction passes information The integration of the processing process realizes the effective improvement and reorganization of the production process, provides a collaboration platform for different participants, and realizes information sharing, which can provide a good way out for the current dilemma of design and construction integration.

BIM is a technology and a process. It uses three-dimensional digital technology to store the physical and functional characteristics of each building component in a database in the form of a model, and nest the relevant connections of each component to provide " The scientific collaboration platform of "simulation and analysis" realizes information integration, sharing and project management. The definition can be understood from the following aspects. The application of BIM technology in engineering construction makes it possible to realize the integration of architectural engineering design and construction.

2.2 The Architectural Engineering Design and Planning

Publicly released relevant information such as regulations, regulations, and regulations; various price information, such as equipment price lists and material price lists; information on weather conditions, climate temperature, environment, etc. for the construction of intelligent building projects; information on the overall status of the project, such as Information on construction site, construction unit, project

number, etc.; information on safe construction, safety inspection, safety penalty, review and rectification, etc.

The application of BIM technology in the integration of engineering design and construction is mainly to enable the cooperation and division of engineering design and engineering construction to achieve cross and balance, so as to finally realize the complementarity, interaction and optimization of engineering design and construction. The integration of engineering design and construction, from the perspective of the project contracting personnel, is the integration of the engineering design and construction unit; from the perspective of the contractor, it is the integration of the engineering design, construction process and overall strategic goals. my country's long tradition of separate design and construction has led to many difficulties in the implementation of the integration of engineering design and construction in our country. The main problems now include: the design and construction of construction projects mostly adopt the subcontracting mode; the disconnection between the design plan and the construction makes it difficult for the construction plan to be successfully used in the construction process; the construction staff cannot fully understand the design concept and requirements of the project , Resulting in the construction project not in line with the designer's intention; the separation of construction and design, resulting in the design information needs to be transmitted through the media to reach the construction staff.

By using BIM, you can simulate construction, experience the construction process in a virtual environment, and eliminate possible problems. It is especially suitable for complex and important projects. According to the construction sequence of the hierarchical building components, an early project plan is developed in the visual simulation software. As the project progresses, BIM building components can be used directly to prepare more detailed project planning, construction plans.

2.3 The Intelligent Planning Platform for Construction Engineering

To use building information modeling technology to achieve the integration of engineering design and construction, it is necessary to solve existing problems, overcome numerous difficulties, and integrate building construction with building information processing. The integration process of architectural engineering design and construction is the unification and integration of architectural information and architectural production. It is to integrate the collected building information, design a building model based on the data, and plan and arrange the overall construction of the building. The building construction is carried out on the basis of the architectural design. And they have a unified operating platform, which is carried out under a unified plan. The traditional architectural design and construction are separated. The functions of the intelligent management platform mainly include the provision of a deep design database, the modular management of the progress of the component production stage, warehousing, and logistics, the integrated management of personnel, machinery, materials, construction methods, and the environment in the on-site construction stage, and the control of the construction progress and correction, and the handover of database during the operation and maintenance stage. When designing a building, designers should use building information modeling technology, build building information models based on specific data and information, and make a budget for construction costs, and then visually simulate later construction on this basis. Of course, the ultimate goal of the design is to allow the construction

personnel to carry out construction according to the design drawings. In order to achieve the integration of construction and design, the construction personnel are required to participate in the design of the construction drawings in the design.

3. CONCLUSIONS

Building Information Modeling (BIM) technology is a relatively advanced visual technology, which can express the overall information of the building in the form of a three-dimensional model through computer integration and analysis. Based on this, this article studies and realizes the application of BIM technology in the intelligent construction of building structures from the perspective of parametric design, whole-process construction control, and intelligent information management platform. First introduced the concept, development and application of building information model; then analyzed the necessity of architectural engineering design and planning.

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Principles and State-of-the-art Practice of Seismic Design of Modern Building Structures

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Abstract: Principles and state-of-the-art practice of seismic design of modern building structures is studied in this paper. At present, the earthquake damage can be simply divided into two parts: upper vibration and bottom instability. According to the currently widely accepted classification of earthquake damage, the vibration of the upper structure can be considered through the structural design, while the instability of the bottom such as faults, landslides and ground subsidence, etc. It is very important to then ensure the safety of the seismic performance of super high-rise structures. In the context of the new era, the scale of super high-rise building projects and the complexity of the structural system are gradually increasing. Hence, this paper gives the novel suggestions and proposes the solutions, the details have been discussed.

Keywords: Modern Building Structures; State-of-the-art; Practice of Seismic Design; Principles; Information Structure

1. INTRODUCTION

When carrying out the steel structure design work, designers should clarify the key points of structural design according to the requirements of relevant national standards, and ensure the safety and reliability of the overall structure to the greatest extent. With the rapid development of high-rise buildings and the shortage of land resources, it is particularly important to build super high-rise structures in densely populated cities.

It is very important to then ensure the safety of the seismic performance of super high-rise structures. In the context of the new era, the scale of super high-rise building projects and the complexity of the structural system are gradually increasing. How to ensure the wind resistance and earthquake resistance of the super high-rise buildings through structural design and meet the expectations for the structural system of super high-rise buildings in the new era has triggered the attention of the scholars and designers of super high-rise buildings in China. High-rise buildings have different stress characteristics as the following aspects.

(1) From the structural point of view, a high-rise building is a vertical cantilever structure. The higher the height, the axial force generated by the vertical load will increase linearly. Therefore, the height of the high-rise building is positively correlated with the load change, and the horizontal load causes the structure to bend. moment.

(2) Although the change of height of the building determines the change of the force, the direction of vertical load will not change accordingly; unlike the horizontal load, which will generate different loads in any direction and thus have corresponding effects on the structure of high-rise buildings.

To this end, designers must conduct a comprehensive analysis of each component during the design process to then ensure the accuracy of the calculation results and the scientificity and rationality of the steel structure layout plan, thereby further prolonging the service life of the building. Sample of the Seismic Design of Modern Building is presented in the figure 1, and in the next parts, details will be discussed.

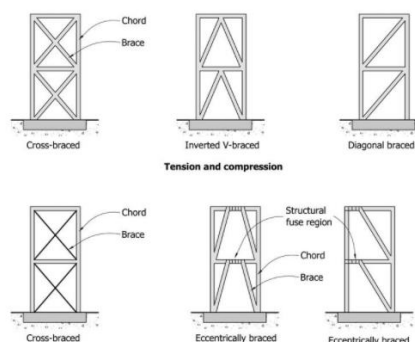


Figure. 1 The Sample of the Seismic Design of Modern Building Structures (Reference figure: <https://www.pinterest.com/pin/272819689902522698/>)

2. THE PROPOSED STRUCTURES

2.1 The Basic Features of Seismic Design

Compared with reinforced concrete structures, under the same load, steel structures have smaller cross-sectional dimensions and thinner thicknesses. However, this feature also leads to poor stability of the steel structure frame, and instability has become one of the main reasons for the destructive disaster of the steel structure. Therefore, the design of beam and column in steel frame structure must carefully analyze the interaction of each member in the frame from listed aspects.

(1) In addition to the seismic design based on rational analysis, the experience and lessons gained in engineering practice are especially valuable. The process of the earthquake action is complex, many theories have not been scientifically verified, and it is difficult to use quantitative calculation methods. Therefore, empirical results must be combined.

(2) Professional theoretical knowledge is the basic support of seismic design, which requires a lot of the calculation and deduction to fully reflect the seismic effect of the building structure. In many codes, the general theoretical analysis and

calculation formula related to seismic design are specified, and the limit value of design permission is given.

In general, mechanical problems can be divided into two categories: linear and nonlinear.

For linear problems, the deformation problem is less. In the practice, if the bounds do not satisfy the properties of the equation, then the problem is nonlinear. Seismic performance-based design is a new development of seismic design based on conceptual design. Seismic performance-based design is still based on the existing seismic design level and also economic conditions. The general design process is to understand the performance goals from the force-bearing body.

It mainly adopts various design methods and devices to make the whole structure or certain parts, and the key components have the least damage during the earthquake action. The level of the performance can be defined as following aspects.

(1) Once an earthquake occurs, the building will bear great external stress, which will seriously damage the beam-column structure of the building. If the damage of the column structure is large, it is very likely to cause the collapse of the entire building. For this reason, designers must implement the design and construction of steel structures in accordance with the principle of "strong columns and weak beams". Practice has proved that adhering to the design principle of "strong columns and weak beams" can reduce the load of column structures to a certain extent.

(2) It has the advantages of good anti-seismic performance and light overall weight, but the disadvantage is that the cost is relatively high. Due to the smaller cross-section of steel structural members, their advantages in ductility are more obvious. In the structural design, it is more suitable for the flexible schemes.

2.2 The Seismic Performance of Multistory Steel Frame Structures

By analyzing the change of the vibration frequency of the steel structure in different soil conditions, and analyzing the change of the structural foundation frequency under different soft and hard foundation conditions, we can draw a conclusion that the core model frequency is the largest under the rigid foundation condition, while the soft foundation as the model frequency is the smallest for soil conditions. By comparing and analyzing the overall indicators of the structure, such as period, total mass, stiffness-to-weight ratio, floor base shear force under earthquake action, interstory displacement angle under earthquake action, effective mass coefficient, ratio of overturning moment, ratio of zero stress area, etc. constant.

The transmission route of earthquake action should be designed reasonably. The stress of the multi-layer masonry structure can be divided into horizontal wall bearing, vertical wall bearing and horizontal wall bearing together. Generally, vertical wall bearing masonry structure is not chosen, and the other two bearing modes are more conducive to the transmission of earthquake action. But also conducive to the flexible layout of the room.

3. CONCLUSIONS

Principles and state-of-the-art practice of seismic design of the modern building structures is studied in this paper. At present, our country's construction industry is maintaining a trend of rapid development, and the number of buildings with irregular shapes is gradually increasing. While this type of building brings novelty to the public, it also puts forward the higher

requirements for the application of inclined columns and the stability of the steel structures. This paper gives the novel suggestions for the structure optimization.

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Research on the Diversified Resolution Mechanism of Foreign-related Civil and Commercial Disputes under the Opportunity of "One Belt and One Road"

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Abstract: This manuscript discusses the diversified resolution mechanism of foreign-related civil and commercial disputes under the opportunity of "One Belt and One Road". Civil and commercial cases themselves can reflect a country's economic development and market operations, while foreign-related civil and commercial cases are difficult for non-professionals to comprehend thoroughly due to the international nature, complexity, and non-recurring nature of their adjustment targets. Statistical analysis of this type of cases. Jurisdiction in international civil and commercial litigation is the scope of authority and legal basis for a country's courts to hear foreign-related civil and commercial cases. This paper gives the novel suggestions considering the "One Belt and One Road".

Keywords: One Belt and One Road; Opportunity Analysis; Diversified Resolution; Foreign-related; Civil and Commercial Disputes

1. INTRODUCTION

Jurisdiction in international civil and commercial litigation is the scope of authority and legal basis for a country's courts to hear foreign-related civil and commercial cases. The legal system related to jurisdiction has always been one of the basic systems of international private law.

Theoretically, jurisdiction is an important part of a country's national sovereignty, and is the centralized expression of the national. In judicial practice, jurisdiction is the first gate to initiate other international civil proceedings. The definition of the scope of application of the jurisdiction agreement in my country's "Civil Procedure Law" can also be divided into general provisions and exclusionary provisions. Article 242 of the "Civil Procedure Law" stipulates that "a party to a foreign-related contract or dispute over foreign-related property rights and also the interests may, by written agreement, choose the jurisdiction of the court with the place of actual connection with the dispute. In terms of research fields and research methods, the focus is on the philosophical level and abstract macro-level private international law research, while the empirical research aimed at solving legislative and practical problems is dwarfed, so that, for example, the relationship between two foreign-invested enterprises Fundamental issues such as whether the contractual relationship is a foreign-related civil and commercial relationship, how to determine jurisdiction over disputes between Chinese domestic-funded enterprises and foreign-invested enterprises are still debated in judicial and arbitration practice.

Especially under the background of the One Belt and One Road, the cases will be complex and need to consider different factors, and this will be the focus of this study. To begin with, in the figure 1, we firstly show the One Belt and One Road pattern.



Figure. 1 The One Belt and One Road (Image source: <https://theonebrief.com/chinas-global-ambition-balancing-opportunities-and-risks-in-one-belt-one-road/>)

2. THE PROPOSED METHODOLOGY

2.1 The Overview of One Belt and One Road and Related Law Issues

In terms of the international law, the "Belt and the Road" international economic and also trade rule system has initially formed, and the content covered is becoming more and more abundant. The commercial dispute prevention and resolution system with the "Belt and Road" characteristics is becoming more and more perfect. The countries along the "Belt and Road" have some of the different resource endowments and strong economic complementarity, so there is great potential and space for mutual cooperation.

The joint construction of the "Belt and Road" aims to promote the orderly and free flow of economic factors, the efficient allocation of resources and the deep integration of markets, promote the coordination of the economic policies among countries along the route, carry out regional cooperation on a larger scale, at a higher level, and at a deeper level, and jointly create an open world considering the inclusive, balanced and inclusive regional economy. The "Belt and Road" initiative is based on the principle of some extensive consultation, joint contribution and shared benefits, and aims at high standards, sustainability, and benefiting people's livelihood. It is a core popular international public product and also the international

cooperation platform in the world today. Law is the rules of conduct that regulate and adjust interpersonal communication. The important function of the rule of law is to ensure the fairness, openness and stability of the communication through certain legal rules. Therefore, the rule of law is an important foundation and guarantee for the Belt and Road Initiative.

Since the interests of my country and the countries along the "Belt and Road" are not exactly the same, the laws of some countries set the investment scope and shareholding ratio of foreign investors in joint ventures out of consideration of ideology, national interests, and security.

Many restrictions are then set, or the joint venture must be operated by the government of the host country and its designated agencies. We will be based on these ideas, the novel perspectives will be conducted.

2.2 The Diversified Resolution Mechanism of Foreign-related Civil and Commercial Disputes

The jurisdiction of the foreign-related civil and commercial litigation in my country adopts a general special chapter-style legislative model. The jurisdiction of foreign-related civil and commercial litigation in my country has not adopted a codified legislative model. Chapter 2 of Part 1 of the Civil Procedure Law and Chapter 25 of Part 4 of the Civil Procedure Law have special chapters for the general provisions and special provisions of the jurisdiction system. Chapter 2 of the Special Procedure Law provides a special chapter for the special provisions on the jurisdiction of the maritime litigation. Hence, the related work has been then considered in the current scenario.

The "Law on the Application of Laws in Foreign-Related Civil Relations" stipulates in the "General Provisions" in the Chapter 1 that the principle of autonomy of will for the parties to choose the applicable law. Article 3 of the law stipulates: "The parties may expressly choose the law applicable to foreign-related civil relations in accordance with the law." as the modern idea of behavioral autonomy. Then, we consider the following aspects.

(1) Article 1 of the "Law on the Application of Laws in Foreign-Related Civil Relations" clearly states that the purpose of the legislation is to clarify the application of laws in foreign-related civil relations and to reasonably resolve foreign-related civil disputes.

(2) There are still many deficiencies in the handling of the foreign-related civil and also commercial cases, such as the difficulty of then delivering documents across borders, the difficulty of identifying and applying foreign laws, and the invariability of the evidence collection. "Case screening, put forward reference suggestions for similar cases, that give legal workers a framework for measurement, and make complex issues concrete.

(3) Our country's current legislation only stipulates that the general scope of application of the agreement jurisdiction system is "foreign-related contracts or foreign-related property rights and interests disputes", and the agreement jurisdiction must not violate the provisions of our country's laws on the exclusive jurisdiction, but the general provisions are still vague and need to be defined

3. CONCLUSIONS

This manuscript discusses diversified resolution mechanism of foreign-related civil and commercial disputes under the

opportunity of "One Belt and One Road". On the whole, the scope of application of exclusive jurisdiction in the foreign-related civil and commercial cases in my country is too narrow, and the scope of exclusive jurisdiction should be appropriately expanded by referring to then internationally accepted practices. The discussed ideas will be applied into the further plans.

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Research on the Judicial Function of General Yili during the Qing Dynasty's Xinjiang Military Government System from the Perspective of Big Data Analysis

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Abstract: Research on the judicial function of general Yili during the Qing dynasty's Xinjiang military government system from the perspective of big data analysis is discussed in this paper. Xinjiang has a vast territory, is located in the borderlands, and is far away from the country's political regions. General Yili is stationed, and heavy troops are stationed. The Qing government's powerful and complete rule over Xinjiang mainly started with the establishment of General Yili. The general system is a system that governs special areas in the Qing Dynasty. Hence, this paper gives the novel suggestions for the systematic construction and the literature study.

Keywords: Big Data Analysis; Xinjiang Military Government System; Judicial Function; General Yili ; Qing Dynasty

1. INTRODUCTION

During the Qianlong period, the Qing government unified Xinjiang, implemented a military government system in the Xinjiang, and exercised the central government's national sovereignty over Xinjiang. As a result, a large number of the Manchu and Han generals and ministers dispatched by the central government came to Xinjiang one after another and stationed in cities and towns in the northern and southern Xinjiang to manage military and military affairs as well as the administrative affairs.

During the Guangxu period, the Qing government established provinces in the Xinjiang, changed the military government system into a prefecture and also county system, set up four provinces, six government offices, ten halls, three prefectures, and twenty-three counties in Xinjiang, and appointed a large number of civilian officials to manage civil affairs in various places. Xinjiang has been an inalienable part of China since ancient times. According to international practice a region belongs to the territory of the certain country one of its important symbols is to set up officials and guards. From the perspective of the historical development and evolution of Xinjiang before the Qing Dynasty, whether it was the period when the Han, Tang, and Yuan dynasties were relatively strong in the Central Plains, or the period when the situation was more complicated in the central dynasties such as the Wei, Jin, Southern and Northern Dynasties, Sui, Song, and Ming Either set up military and also political institutions, dispatch officials or confer titles on local leaders that implement self-government .

All the exercise military and political jurisdiction over the Western Regions and it has never been interrupted. With this background, in this paper, we will discuss the judicial function of general Yili during the Qing dynasty's Xinjiang military government system from the perspective of big data analysis in the following sections.

2. THE CORE IDEAS

2.1 The Analysis of the Period Characteristics of Xinjiang's Military Government in the Qing Dynasty

The Qing government's powerful and complete rule over Xinjiang mainly started with the establishment of General Yili. The general system is a system that governs special areas in the Qing Dynasty.

It integrates military affairs and administration. At that time, the Qing government set up a capital in the Urumqi and set up counselors and ministers in Ili, Talbahatai, and also Kashgar. Ministers at all levels in Xinjiang were under the jurisdiction of the General Yili. Yili Military and Political District is the residence of General Yili and one of the four major military and political districts in Xinjiang.

Like Talbahatai and Kashgar Military Administrative Region, Ili Military Administrative Region also had a counselor. The permanent counselors in the general Qing Dynasty, Uliasutai Counselors and Khovduo Counselors were set up in the Khalkha Mongolian area under the jurisdiction of General Uliasutai. In Xinjiang, there are three counselors and ministers in the Taerbahatai, Kashgar and Yili. Khalkha, Mongolia, and also Xinjiang are border areas, and the general is the highest military and political officer, with counselors and ministers under him, which reflects the nature and characteristics of the military-political integration. This is a type of frontier military and political system in the Qing Dynasty.

Among the three counselors and ministers established in Xinjiang, the system of filling the vacancy of the counselors in Ili is similar to that of the counselors in the Talbahatai and Kashgar. Then, we consider the listed focuses.

(1) The Western Region has a vast territory, complex ethnic groups, and a backward economy coupled with the powerful enemies peeping and ulterior motives. How to strengthen the control and rule of this vast, remote and also very important northwest territory? Qianlong summed up the experience and lessons of the central dynasties ruling this area in the past

dynasties and determined the policy based on the military and political rule based on the actual situation.

(2) The size of the Xinjiang is the largest in the country; the number of ethnic groups is the largest in the country. In order to maintain the Qing Dynasty's own rule and ensure social stability, the military government system was established, and effective political strategies were adopted for the further local management considering the different administrative systems were implemented.

2.2 The Judicial Functions of General Yili

Due to the influence of factors such as ethnicity, religion, and history, the legal culture of Xinjiang in the Qing Dynasty showed the coexistence of multiple laws such as state laws, religious laws, and customary laws.

Menghui Zhasak, Huijiang Burke, and Kazakh princes under the Fuyamen all have varying degrees of judicial power over the subordinates. In addition to the yamen of the military government at all levels, there are also the Burke yamen in Huijiang, Hami and Turpan Huiwangfu and Mongolian and Kazakh princes, etc., who enjoy judicial power over their own people. The Qing court allowed them to apply Islamic law and customary law of their own nation case.

In practice, the jurisdiction of important criminal and civil cases is under the jurisdiction of the military yamen, and the judicial functions of Huijiang Burke, Hami and Turpan Hui kings and Mongolian Kazakh princes are placed under the supervision of the military Yamen and are limited to minor punishments. cases and grassroots civil affairs. Judging and punishing Xinjiang cases with the core "Laws of the Qing Dynasty", there are many specific cases, and the prominent feature is to strengthen the relevant principles in the "Laws of the Qing Dynasty" to prevail in Xinjiang. Local legislation in the Qing Dynasty was generally confirmed in the form of articles of association, matters or regulations, and regulations. Most of this type of legal form was in the form of memorials passed by local officials in Xinjiang and incorporated into regulations after approval by the emperor.

The national and local characteristics of local legislation are particularly prominent, and the regulations are more detailed and also more operable, which effectively complements and cooperates with the application of national legislation.

Inquisition is the focus of the system, it is mainly the Islamic imam's handling of civil disputes based on the Islamic law. At the grassroots level in southern Xinjiang, for civil disputes and disputes, the imams of the mosque form religious courts to mediate disputes based on the teachings of the Koran. The religious courts have good credibility and execution among the Hui people, and they are the most distinctive religious judicial treatment in Xinjiang. Although it is strictly limited to civil disputes, as a normal way of handling social disputes, its role cannot be underestimated

3. CONCLUSION

Research on the judicial function of general Yili during the Qing dynasty's Xinjiang military government system from the perspective of big data analysis is discussed in this paper. The Xinjiang military government system has its special historical background, and the legal governance system built around the stability and development of the Xinjiang also has distinctive military characteristics, and has played a unique role in the stability and development of Xinjiang society. Hence, this paper gives the novel suggestions for the detailed studies. In

the future, we will combine more literature to make the whole study more efficient.

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Study on Impact of Big Data Technology on Corporate Finance and its Application in Financial Sharing

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Abstract: Study on impact of big data technology on corporate finance and its application in financial sharing is the focus of this paper. The digital transformation of financial shared services cannot be independent of the overall digital transformation of the enterprise. The overall digital transformation experience of the enterprise is worthy of reference for the digital transformation of financial shared services. Based on the principle of "bringing in" and "going out", we should be able to actively communicate with other enterprises, share experience, learn from the successful experience of other excellent enterprises, and make the modern enterprise's financial risk early warning mechanism. This paper gives the new discussions on the mentioned ideas and propose the solutions.

Keywords: Big data, corporate finance, financial sharing, general application, general impact

1. INTRODUCTION AND BACKGROUND

On July 8, 2018, the Deputy Director Shu Huihao, who is in charge of the national accounting informatization work, and pointed out that he then attaches great importance to the application of new technologies such as blockchain and artificial intelligence in the field of accounting informatization. One of the three important tasks that will be focused on in the next step. In the process of promoting production and further operation, only by doing a good job in general financial and accounting management can an enterprise be able to optimize the allocation of funds to reduce costs as much as possible, and then maximize economic benefits. Based on the principle of "bringing in" and "going out", we should be able to actively communicate with other enterprises, share experience, learn from the successful experience of other excellent enterprises, and make the modern enterprise's financial risk early warning mechanism adapt to the needs of enterprise development, and better carry out early warning of financial risks.

Combining the source channels and data forms of big data, it can be found that there are relatively many types of big data, not only limited to the traditional structured data, but also gradually changing to unstructured data, hence, the proper combination is essential. To begin with, the figure 1 shows the Financial Sharing Model.

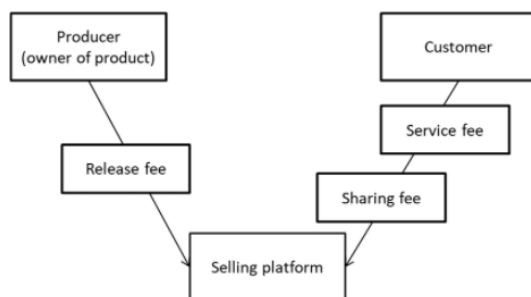


Figure. 1 The Financial Sharing Model
(https://www.researchgate.net/figure/Finance-flow-and-sharing-economy-2_fig2_327975972)

2. THE PROPOSED METHODOLOGY

2.1 The Overview of Financial Big Data Model

Most of the studies that have been conducted have elaborated on the technical support, transformation methods and practical implications utilized to build an intelligent financial system. However, few scholars have proposed the support, linkage and practical significance of intelligent financial system from the business process of the financial processing to the different business ports. We should optimize the management of key work links. For example, in financial risk early warning work, data collection and analysis is an important environment that determines the quality of risk early warning work. Therefore, this work can be regarded as a special job position, and the work of the post content and responsibilities to effectively improve the quality of data collection and analysis.

The goal of smart finance is to promote the improvement of the financial work and also better serve business work and management work. Hence, we should face with the listed challenges.

(1) To standardize the operation of the financial risk early warning system, it is necessary to formulate scientific and effective system operation rules and also the regulations in combination with the actual situation of the system, to ensure that employees in various departments can standardize the operation behavior, and to ensure the authenticity and security of the information in the system.

(2) In the context of the big data era, enterprises often transmit and store information in the cloud when building financial and accounting information, which further increases the risk of information being stolen, intercepted, and tampered with.

(3) Some of the financial managers under the management also do not fully recognize understand the importance of the information management, so only a knowledge of accounting half-understanding, lack of initiative of the various software operation, not able to meet the mainstream of the development of the times. How to effectively build an intelligent financial system to help modern enterprises develop has become an

important research proposition under the background of the big data era.

2.2 The Big Data Technology on Corporate Finance and its Application in Financial Sharing

With the sharing technology, the business department feeds back the business data information to the financial department in a timely manner, and also the financial workers conduct financial analysis on it and provide it to the general business department, so that the business department can then better understand the financial status of the operation.

For the efficient analysis, listed factors should be considered. The three dimensions of current use, use and non-use in the next three years are used for general strategic management, comprehensive budget, rolling budget, flexible budget, zero-based budget, activity budget, traditional cost calculation, standard cost management, variable cost method, activity-based cost method, target cost method, volume-cost-benefit analysis, marginal analysis, sensitivity analysis, benchmarking, discounted cash flow method, project management.

Through the continuous operation of the financial shared service center, financial special ability, information collection ability, and also the business support ability are continuously improved, and the digital transformation of finance is realized, so that general finance can play the greatest value in the transformation and upgrading of enterprise management.

Therefore, enterprises should first strengthen the digital strategy talent guarantee, and then set up an enterprise digital transformation strategy research team, and continuously promote enterprise digital transformation research and also discussion. Secondly, according to the changes in personnel quality requirements for business digital development needs, timely arrange the knowledge structure of personnel in each link, so that general digital literacy becomes the standard configuration of knowledge requirements for various business links and business personnel.

3. CONCLUSION

Study on impact of big data technology on corporate finance and its application in financial sharing is the focus of this paper. The essence of financial shared services is to rely on information technology to centralize the financial functions within the enterprise group through process reengineering, organizational reengineering, and system reengineering to provide standardized services and management to the other business units within the enterprise. Hence, for the discussions of the model, in the future, the applications will be considered.

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Research on Innovation of Financial Management Informationization of Enterprises and Institutions Considering Big Data Methods

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Abstract: Research on innovation of financial management informationization of enterprises and institutions considering big data methods is studied in the paper. In the era of digital economy, the overall transformation of the financial management of enterprises and institutions is an inevitable trend. Regardless of active transformation or forced transformation, the construction of "financial transparency management" must be completed after all. The main contents of the scientific financial management of enterprises and institutions include: combining the actual financial operation of the core unit, the systematic top-level design of the basic financial management system, the development of a sound and efficient, scientific and perfect financial management system. This paper gives the clear discussions and also the related applications to validate the proposed ideas.

Keywords: Big data methods; enterprises and institutions ; innovation; financial management informationization

1. INTRODUCTION

In the context of digital economy, before the transformation of financial management in the enterprises and institutions, their senior managers should then comprehensively improve their awareness of "digital financial management", and they must be very clear about what aspects should be improved after the transformation. The scientificization of financial management refers to the process of using the systematic thinking and scientific methods to the financial management system and continuous optimization. The main contents of the scientific financial management of enterprises and institutions include: combining the actual financial operation of the core unit, the systematic top-level design of the basic financial management system, the development of a sound and efficient, scientific and perfect financial management system.

Currently, we are facing with the listed challenges.

- (1) In the development of the enterprises and institutions, the financial management and internal audit problems they face are reflected in the lack of scientific audit methods. During the business expansion of enterprises and institutions, a large amount of the financial information is then usually generated. When conducting internal audits on such of information, it is necessary to rely on scientific and reasonable audit methods.
- (2) Traditional financial analysis thinking is limited to the relatively single financial statement data and indicators of the enterprise itself and the industry in which it operates.
- (3) Financial management work to serve the overall interests of the enterprise, that is, when enterprises carry out digital construction, financial management work should also explore the standardization of the basic data, system isomorphism, process automation service intelligence related to construction.

In the process of financial management and internal auditing, enterprises and also institutions should pay attention to the management of the monetary funds and optimize the internal auditing process. Therefore, the general combination with the computing system will be also essential. In the "cloud", the

financial data uploaded by some multiple sub-systems of the enterprise, the information about the development of the enterprise information should become standardized data, and the degree of data standardization needs to be placed in the process of general comprehensive consideration of enterprise development. In following sections, the details considering the novel ideas will be introduced.

2. THE DESIGNED MODELS

2.1 The Basis of the Financial Information System Model

The statistics of various budget execution rates mainly rely on the financial payment system and accounting cloud platform. First, there will be manual errors in the data statistics, which makes it difficult to meet the management needs of various departments, and the management efficiency is low. Second, the data is not timely, and financial personnel issue reports. The time is from the end of each month to the beginning of the next month, and it is impossible to control the budget indicators in time, especially at the end of the year. Hence, the combination with the information model will be essential.

The establishment of comprehensive informatization needs to follow the policy requirements of the relevant departments at the higher level, implement the requirements of the higher-level documents, and "understand well" the policy.

Here, in the basic analysis, we then take the school financial system as the example for the demonstration. The entire budget project management and control system is embedded in the front end of the financial service. When each user is reimbursed, the system will record it into the budget execution process synchronously, strengthening the connection between the reimbursement amount and the budget execution, realizing one-time data recording, and multiple databases. During the construction process, financial personnel fully communicated with the information technology personnel based on the effect of the data sharing of each module, participated in the whole process, and even jointly customized and developed software with the information technology personnel.

Listed are the selected focuses.

(1) Schools can strengthen the application of cloud data. A large amount of financial-related data has a certain impact on the operating speed and also data processing efficiency of the education system. Therefore, modern schools can use relevant technologies to store some financial data that is currently used in a timely manner in the cloud.

(2) For each job responsibility, the form-based management model is adopted. As a data carrier, the form can collect, clean up and manage data through the financial information system to make the school's financial data more accurate and clearer.

(3) The computerized accounting process in the financial field has been developed for a long time. The debugging and installation before operation, the general maintenance during operation, and the improvement of the system in the later period mostly rely on the management of financial software services. The services of the software service providers will directly affect universities. Financial information construction.

2.2 The Specialized Analysis on Finance of Enterprises and Institutions

In the era of digital economy, enterprises and institutions should take a long-term perspective, and the transformation of basic financial management work should keep up with the development of the enterprises, so that financial work can be "extroverted" and help enterprises grow bigger and stronger. Enterprises and institutions carry out financial management and internal audit work, which can help unit leaders to grasp the development of economic activities, audit capital flows in a focused manner, to realize the reasonable distribution of interests of the related parties of the enterprise, and realize the level of financial management and internal audit.

The time-consuming digital transformation process of the financial management has "Schrödinger's nature", which may take a long time without any effect, or may be fully completed after a short adjustment. The key factor is whether to follow principle of "unified planning, step-by-step implementation". The so-called "unification" refers to the unity of the following aspects: First, the core digital transformation of the financial management model is not carried out alone, but needs to be transformed together with the enterprise. On the basis of basic financial analysts changing their financial thinking and further improving their comprehensive quality, enterprises and the institutions also need to make use of their strengths and avoid weaknesses, and actively build a talent echelon system.

3. CONCLUSION

Research on the novel innovation of financial management informationization of enterprises and institutions considering big data methods is studied in the paper. In the development of modern society, the financial management and internal audit of enterprises and institutions have a relatively close internal relationship, and they need to be interdependent and supervised. In the new era, if enterprises and institutions want to improve the efficiency and level of financial management, they need to put forward diversified solutions on the basis of understanding the problems they face. This paper discusses the novel technology for the assisting the related studies.

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Research on the Fusion of Artificial Intelligence and 6G in Computer Network Technology

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Abstract: With the rapid development of information technology, in the 6G era, the popularization and application of artificial intelligence technology has an irreplaceable role in the operation and management of enterprises and the realization of sustainable development. The application in the development of industry, agriculture and other industries has greatly improved production. Efficiency and quality. The development of computer technology has created conditions for the development of artificial intelligence technology. In turn, the innovative development of artificial intelligence has also promoted the development of computer networks to a certain extent. With the advent of the "Internet +" era, computer network technology has had a huge impact on people's production and life.

Keywords: Artificial Intelligence, 6G, Computer Network Technology, Fusion Modeling

1. INTRODUCTION

Artificial intelligence and big data are the products of the rapid development of modern computer network technology. If we want to improve the application level of artificial intelligence and big data technology in this context, you should combine the application of the two technologies with computer network technology. By exploring the application forms of the two technologies in the development of computer network technology, we can more clearly define the current development trend of computer network technology, facilitate the corresponding technology research and development control, and meet the scientific development needs of computer network technology research and development [1-6].

This article focuses on the research of big data era and artificial intelligence application in computer network technology. Its significance lies in combining its technical application with computer network technology application according to the definition of big data era and artificial intelligence technology, so as to improve the level of computer network technology development and meet the needs of computer the actual needs of network technology development management. Artificial intelligence and big data are the products of the rapid development of modern computer network technology. If you want to improve the application level of artificial intelligence and big data technology in this context, you should combine the application of the two technologies with computer network technology. By exploring the application forms of the two technologies in the development of computer network technology, we can more clearly define the current development trend of computer network technology, facilitate the corresponding technology research and development control, and meet the scientific development needs of computer network technology research and development. This article focuses on the research of the big data era and artificial intelligence application in computer network technology. Its significance lies in the combination of its technical application and computer network technology application according to the definition of big data era and artificial intelligence

technology, so as to improve the level of computer network technology development and meet the needs of computer the actual needs of network technology development management. In the context of the development of computer networks, people's awareness of network information security has also been improved [7-15].

Today, while artificial intelligence technology provides people with convenience in life, it also brings a greater risk of network information application. In recent years, the news of network fraud and network information misappropriation has always been a hot spot of social concern. The public is highly vigilant about network information security. In order to improve the quality of network monitoring and ensure network security to the greatest extent, it is recommended that relevant departments strengthen network monitoring and management. Guarantee the security and scientificity of network information to the greatest extent, and finally realize comprehensive network monitoring and management. Computers can make quick calculations on data that does not have continuity and regularity, so as to derive data algorithms and find potential relationships. However, it is difficult to find leaks in a multi-channel information interaction environment only by tracing the source of information through information processing, and it is difficult to investigate abnormal data, and the staff lacks skill and processing accuracy is not high. Artificial intelligence technology can effectively reduce the difficulty of manually querying data and improve the quality of integrated management of network data. For example, an artificial intelligence-based information access and tracking system can be established to achieve the purpose of automatic search and information reading. In the entire network operation, problematic data can be processed in time, and existing failures can be dealt with. In addition, artificial intelligence can also deal with the problem of network delay and ensure the operation of computer network information to the greatest extent. Finally, the use of artificial intelligence technology can also reinforce the security system and ensure the security of the use of user information to the greatest extent [16-21].

With the continuous development of the times and the continuous iterative development of various dimensions of technology, Internet technology, big data, Internet of Things, 6G technology, etc. are constantly popularizing, and they are also constantly merging with various industries. With the development of new infrastructure development calls, smart technology and industry the in-depth integration is an important trend for a long time in the future. This trend will affect the industrial structure of many industries [22-24].

2. THE PROPOSED METHODOLOGY

2.1 The 6G Communication Network

In the future B5G/6G edge network, due to the diversification of service requirements and the explosive growth of the number of connected devices, there is an urgent need for a new artificial intelligence-supported management and control paradigm based on highly heterogeneous infrastructure, wireless access, and computing. And storage resources to realize the self-awareness, self-configuration, self-optimization and self-repair of the network.

2.2 The Artificial Intelligence Principles

At present, the application of artificial intelligence technology mainly used in computer networks is mainly reflected in three aspects: Under the new situation, the application of artificial intelligence technology in computer networks can realize effective defense against spam. The majority of users often receive spam harassment while using computer mailboxes for communication, which seriously affects the user's computer service experience. And people use artificial intelligence technology to avoid users being harassed by spam to the maximum extent. Specifically, artificial intelligence technology is based on users receiving emails through their mailboxes, and automatically detects the security of emails, accurately checks and finds out junk emails from numerous emails in a timely manner, and friendly reminds users to delete and other operations. To a certain extent, it can ensure the safety and reliability of the user's mailbox to send and receive emails, and it can also greatly improve the user's computer experience, and increase the degree of trust and recognition. Artificial intelligence agent technology is artificial intelligence agent technology, which is a software entity composed of knowledge domain library, database, explanation reasoner, and communication between agents. The artificial intelligence agent technology processes new information and data through the knowledge domain database of each agent, and finally communicates to complete the task. Artificial intelligence Agent technology can obtain automatic search of information through user customization, and finally deliver it to the designated location.

People can get humanized services through Agent technology. For example, when a user uses a computer to find information, this technology can analyze and process the information, and the useful information obtained can be given to the user, which saves the user's time. Agent technology can also provide users with daily life services, such as online shopping, scheduling, meeting arrangements, mail receiving and sending and other things. The artificial intelligence agent technology is also autonomous and learning, which can make the computer automatically complete the tasks assigned by the user and continuously promote the development of computer network technology. The computer has extremely powerful calculation speed. As long as the performance of the computer meets the requirements, it can deal with problems in real time, and the response speed depends on the hardware facilities, so that the computer can better deal with problems and be more

rational when facing problems. The essence of artificial intelligence is to make machines have the ability to handle affairs individually.

2.3 The Integration of Artificial Intelligence and 6G in Computer Networks

As we all know, the use of artificial intelligence technology can achieve direct management of computer networks, and can also make a scientific, reasonable and effective comprehensive evaluation of computer systems. The staff use artificial intelligence to carry out network management work, which is conducive to improving the level of computer technology. At the same time, it can also improve the performance of the computer from many aspects and angles. Using artificial intelligence technology, industry experts and scholars can break through the limitations of time and space under the traditional working mode, and achieve effective network management anytime, anywhere.

After the timely development and application of new computer systems, staff can also use artificial intelligence technology to comprehensively and systematically evaluate computer systems anytime and anywhere, so as to make targeted improvements and perfect new systems based on actual conditions and existing problems. Judging from many practical experiences, experts and scholars' innovation suggestions, optimization and upgrading measures for network systems are all based on artificial intelligence technology and methods. In other words, artificial intelligence technology plays a role in computer system innovation, optimization and upgrading. The irreplaceable role is precisely because the application of artificial intelligence technology makes continuous innovation and improvement of computer technology possible. Under the economic construction, the application field of artificial intelligence is gradually expanding. It not only plays an obvious role in industrial production, but also has important application value in the construction and management of modern enterprises. First of all, artificial intelligence technology can realize the automatic monitoring and management of the enterprise, which can improve the progress tracking, employee inspection, and work follow-up of its leadership, and comprehensively improve the management efficiency of the enterprise.

In addition, the intelligent management method provided by artificial intelligence not only promotes the high-efficiency construction of the enterprise, but also achieves the goal of low-cost and high-yield, which is of great value to the comprehensive investment and construction of the enterprise. Finally, artificial intelligence technology can realize self-learning through continuous accumulation.

3. CONCLUSION

The combination of artificial intelligence technology and computer network technology has promoted the high speed and safety of computer network operation to a certain extent, and has improved the efficiency and quality of computer network management. my country's computer network technology is in the stage of innovative development, and the rapid development of the economy and society provides a good environment for the application of artificial intelligence technology in computer networks. Therefore, in the context of big data, the combination of artificial intelligence technology and computer network technology is an inevitable trend for technological development. The two promote each other to provide users with more secure and convenient network.

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Research on Digital Twin of Practical Network Training of Clothing Design Specialty Based on Virtual Fitting Room Software

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Abstract: Through the statistics of digital twin related documents in the Web of Science core collection database, the bibliometric research method is adopted, and the observation points are the number of published papers and the distribution of documents, the cooperation between authors and research institutions, document citations, and the co-occurrence of keywords. This paper also designs a non-parametric anthropometric graph convolutional neural network that does not depend on any parametric body model, only needs to input a body mask image and a small number of anthropometric dimensions to explicitly predict the 3D body vertex coordinates. More than 95% of consumers have a strong desire to try 3D virtual fittings, 80% of consumers support the establishment of virtual fitting rooms in physical stores, and more than 60% of the respondents expressed their willingness to upload their own photos or human body data to construct the efficient model.

Keywords: Digital Twin, Practical Network Training, Clothing Design Specialty, Virtual Fitting Room

1. INTRODUCTION

Digital Twin is a virtual model that expresses the physical entity of a product in bits. It simulates the behavior of the physical entity in the objective environment and empowers the physical entity by means of virtual-real interactive feedback [1], data fusion analysis, and decision iterative optimization. Cultivating and improving the employability of college students and improving the quality of employment is one of the important goals and urgent tasks of current higher education [2].

Based on the opening of practical courses of clothing major in our college, this paper discusses the training mode and method to improve the practical innovation ability of students majoring in fashion design and enhance their employment competitiveness [3]. The most widely used and mature technology in the garment CAD system is the grading and layout system. Under the mode of mass production of garments, garment CAD has brought great benefits to garment enterprises in grading and layout. Since 2009, due to the continuous increase in the scale of online shopping, the number of consumers who use online shopping has grown rapidly [4], and the number of consumers who go to brick-and-mortar stores has been relatively stable. The growth rate of online shopping consumption in the first half of 2011 increased by 6% month-on-month.

Online shopping brings convenience to consumers. At present, there are two main types of 3D virtual fitting applications. The first type is aimed at ordinary consumer groups. [5] As we all know, when people buy clothes, they must first carefully select the styles they like, then find the size that is more suitable for their body, and finally go through the traditional process of trying on clothes. The whole process is not only very time-consuming, but also needs to go through a lot of processes. Once the clothes are not suitable, analyze the relevant knowledge elements and skill elements [6].

Emphasizes the applicability and necessity of course content, avoids the overlapping and repetition of knowledge through synthesis, highlights the cultivation of comprehensive

knowledge and comprehensive practical ability [7], and forms a new course type based on integration. Today, film is not limited to using Animated special effects create large-scale, difficult-to-shoot complex scenes. 3D human and clothing modeling coupled with motion capture technology has played an important role in film animation, constantly providing a visual feast for moviegoers [8]. With the rapid development of 3D modeling technology and graphic image technology, virtual fitting technology has developed under the circumstance that consumers would rather give up buying clothes than try them on [9].

Virtual fitting is that consumers input the parameters of each part of their body, put digitally processed clothing on "self", and show the fitting effect. The research on digital twins is heating up rapidly, mainly focusing on the concept definition of digital twins [10], importance analysis, construction process description and value target expression, as well as applying the digital twin concept to specific intelligent manufacturing scenarios to solve specific practical problems. Employability refers to the ability of college graduates to achieve employment ideals, meet social needs and realize their own value in social life through knowledge learning and comprehensive quality development during school [11].

At present, the contradiction between students, schools and employers is prominent. The reason is that the knowledge structure and ability of clothing majors trained by traditional higher education cannot meet the requirements of new enterprises [12]. As one of the important modules of clothing CAD However, the traditional clothing pattern design system cannot play its due potential in clothing enterprises. For example, the looseness of clothing and the control of body shape still require the accumulation of long-term knowledge and experience of users [13].

The traditional retail industry uses e-commerce platforms to seize the opportunity and develop its own new marketing channels. In addition, online shopping consumers are obviously inclined to moderate and severe. In the second half of 2010, the proportion of moderate online shoppers has

exceeded half [14]. Take Taobao as an example. 3D virtual fitting is a new user experience technology based on Augmented Reality. It mainly uses computer recognition technology, graphics and related software to allow consumers to perceive the real clothing fitting effect in advance [15].

2. THE PROPOSED METHODOLOGY

2.1 The Virtual Fitting Room Software

According to the training goals of fashion design professionals, the practice is divided into five modules: basic cognition, process production, product design, innovation and entrepreneurship, and industry-university-research cooperation. The basic cognition module includes clothing material and performance cognition, basic cognition of fashion design art, ergonomic cognition, cognition of clothing structure process, cognition of clothing equipment and operation, etc. The clothing model design system should realize automation and intelligent patterning, not only need to use the parametric pattern design method, but also need to rely on expert knowledge and experience.

Human body reconstruction based on 3D scanning is a widely used reconstruction method. By encapsulating the point cloud obtained by scanning, an accurate 3D human body mesh model can be reconstructed. Unity3D is a real-time 3D creation and operation platform, and its content functions are very Powerful, can be called to work in many fields. Many large domestic Internet companies, such as Tencent and NetEase, are using this platform to create games. Comment on the overall effect of the dress by yourself or a friend who accompanies the shopping. However, the evaluation of whether the color of clothing matches one's own requires some professional artistic knowledge and literacy, and ordinary consumers generally do not have.

2.2 The B.Fashion Design Professional Practice Network Training

On the one hand, through anthropometric measurements, we have mastered the data of various parts of the human body, so that the size of the panel design can be based on evidence; The premise of clothing board design. Everyone's body is different. Therefore, it is necessary to match according to the real data of the customer, establish a file according to the personal body data, and match the corresponding body model from the database in the platform.

During data entry, customers can manually input their own body data on the platform. Learning Scenario 1 Set up a fashion design studio: Arrange teaching in the way of setting up a fashion design studio. Through the training of new employees and preparation for the opening of the studio, the basic knowledge of clothing three-dimensional design and the preparation of utensils are completed. Physically, color is the characteristic of visible light, physiologically it is the different stimulation of visible light to vision, and psychologically it is Visible light stimulates the brain's response. Studies have shown that the retina contains three different cone cells, which contain three visual pigments that sense red, green and blue.

The co-occurrence network between institutions and countries is analyzed, and the cooperative relationship in the research field is analyzed. Finally, the knowledge evolution and hot trend of digital twin research are analyzed through the co-citation and keyword co-occurrence network., creative dress design, knitted clothing design, clothing product design, home textile product design, pattern design, etc.

2.3 The C.Digital Twin Research for Fashion Design Majors

Practical courses include intensive, verifiable practical courses and skills-centered practical courses attached to theory. They are compulsory practical content and constitute the main learning content and credits of the four-year university. Through this platform, each independent practice course can be integrated horizontally and continued vertically, such as the integration of fabric reconstruction practice with draping and dress design. In this method, the human body data and the body shape judgment results given by experts are used as the input and output of the network, respectively, and the body shape evaluation prediction is given according to the human body data, and it is compared with the output value, and the obtained error is used as the next prediction. Based on the revision, another survey found that: 54.4% of people are willing to accept new things, 20.8% are very happy, and no one is unwilling to accept new things, indicating that most consumers have the desire to accept new things, which is very Conducive to the promotion of 3D virtual fitting system. Since the dataset used in this chapter does not contain any texture information, and previous studies have shown that a single mask image or contour cannot provide sufficient shape information

3. CONCLUSION

In this method, the human body data and the body shape judgment results given by experts are used as the input and output of the network, respectively, and the body shape evaluation prediction is given according to the human body data, and it is compared with the output value, and the obtained error is used as the next prediction. Based on the revision, another survey found that: 54.4% of people are willing to accept new things, 20.8% are very happy, and no one is unwilling to accept new things, indicating that most consumers have the desire to accept new things, which is very Conducive to the promotion of 3D virtual fitting system. Since the dataset used in this chapter does not contain any texture information, and previous studies have shown that a single mask image or contour cannot provide sufficient shape information

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Ethical Challenges and Coping Strategies of New Media Network Modeling of Photojournalistic Images

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Abstract: This paper attempts to analyze the current characteristics of news photography and the value and existing problems of professional news photography in the new media environment, and proposes specific methods for the reform of photojournalism teaching in colleges and universities and countermeasures for students to participate in professional practice. Ethical issues such as privacy leaks, security breaches, and data gaps arising from the application of big data information technology, as well as ethical issues such as robot rights, algorithm bias, and poor information arising from the application of artificial intelligence (AI technology). Perfection of ethics and knowledge the integration is deepened at the level of human ideology; ethics and morality regulate the knowledge economy, which can provide guidance for the harmonious and healthy development of knowledge under the ethical framework.

Keywords: Ethical Challenges, Coping Strategies, Media Network Modeling, Photojournalistic Images

1. INTRODUCTION

There is a famous saying in the West: "Knowledge is power", the implication of which is beyond doubt. The deterrent power of knowledge has exceeded people's imagination [1]. It is like a double-edged sword, which can promote the pace of social progress and the development of the national economy. If it can truly record and collect clinical practice information and form massive [2] data, conduct computational analysis and conduct research, it will definitely play an important role in exploration, innovation and clinical evaluation. In the education of photojournalism in colleges and universities, because of the large number of applications of modern equipment [3], compared with traditional photojournalism teaching, photographic technology and skills are the means, and photojournalism must be news [4], which is its qualitative stipulation, network communication and digital photography have developed in today's professional photojournalism [5].

From a single classroom face-to-face teaching gradually expanded to classroom teaching and after-class network communication [6]. After class, teachers can answer questions in a targeted manner, so that students can obtain more information and promote their learning. Rather, I prefer to participate in it, witness [7], feel, and enjoy the atmosphere of the entire scene to reflect the enthusiasm for self-existence. So far, photography art has stepped out of the ivory tower and opened the era of civilian photography [8]. The advancement and development of the digital age has enabled the promotion of new communication methods and indirectly promoted the news and photography industry [9]. This requires news photographers to have certain shooting skills, which can improve the quality of photos on the basis of ensuring timeliness [10].

But a closer look at the current state of photojournalism reveals some problems [11]. Due to the timeliness and digital characteristics of new media, the photojournalism environment is more complicated. Traditional photojournalism is a monopoly industry [12], so the impact of new media not only seriously affects the voice of the photojournalism industry, but also leads to changes in the identity of journalists. Information technology has become an

indispensable weapon for modern people to transform society [13]. Looking at the data, I found that there is no clear definition of information technology ethics [14].

By sorting out the existing data, we can draw the following conclusion: "Information Ethics" started significantly later than developed countries in the research of information technology ethics issues [15]. In the 1970s, foreign countries have begun to rely on the development of computers to study information technology ethics issues, and put forward constructive suggestions for the formulation of modern computer ethics rules [16]. Under the scouring of the new media wave, photojournalism has suddenly become the darling of the times. The new media brought photojournalism out of the printing era, provided him with a broader communication platform [17], and gave it more diverse forms of expression. The traditional paper media also urgently needs to use its power to survive and develop in the Darwinian media jungle [18].

Ethics is a discipline that studies the morality and interests of human behavior, the judgment of good and evil, and the evaluation criteria in social development. In addition to the view that it is regarded [19] as a pure academic theory, many scholars agree that its research significance is in the development of society and human beings. There are three core elements of [20] the real-world research paradigm. One is to follow the reality of clinical medical treatment, without presupposing and limiting the actual clinical medical process; the other is to construct a relatively structured information collection and analysis System. Photography courses started late in the field of education in my country. In many colleges and universities [21], photojournalism is a relatively marginal course, but it is also a compulsory course for students majoring in journalism and communication. relatively awkward position [22].

Photojournalism is a news report with a short text description that describes what is happening through photographic pictures. It is a form of communication used to describe the process and background of an event. Photojournalism [23] in the new media environment begins to pursue depth. Journalism is the essential attribute of news photography. As

long as a picture has basic news elements, it is considered a qualified news picture [24], and the more important the subject matter, the higher the news value. At present, for news reports, the news photos are all done by more professional photo editors [25].

2. THE PROPOSED METHODOLOGY

2.1 The New Media Network Modeling of Photojournalistic Images

Today's news photographers want to maintain an edge in the fierce competition. First, the ethical issues of information technology in the new era are uncertain and unpredictable. Since the beginning of this century, information technology has developed at an astonishing speed, and the wave of information technology has impacted the entire human society in a very turbulent situation. The creators and users of information technology are human beings. The invention of Internet information technology has undoubtedly made the world have made a big change. Since the Internet has entered people's lives, whether it is for office, writing, entertainment, shopping, or booking tickets, people have to rely on the Internet.

At present, the content of photojournalism education in most colleges and universities is mainly aimed at the form of print media communication, and picture news has become the "supporting role" of text news. After the emergence of new media, mobile networks and smart phones have gradually become popular, and the content and form of news has become more comprehensive and rich. People can use mobile phones to receive information at any time, record and disseminate information in their own way, and learn about current affairs. When there is an emergency, the photojournalist must ensure that they arrive at the scene of the emergency in time and take photos of the relevant incident as needed.

2.2 The Research on Ethical Challenges and Coping Strategies

These photos have the potential to be the key value of a news item. In the context of new media, everyone is "shooting", and everyone is a reporter. It is not easy to have exclusive news. In the process of conceptual transformation, ordinary grassroots photographers should be able to do it, but they can do it themselves. Things attract attention. This also requires news photographers to transform from traditional photo collectors to photo editors. At the same time, driven by the new media era, people's civic awareness has been continuously enhanced. With the development of science and technology and the popularization of digital information technology, the production technology of mobile phones and cameras has been continuously improved. On the one hand, the enhancement of the functions of mobile phones and cameras has prompted changes in citizenship. Internet rumors are a common information technology ethics anomaly.

It is often spread in the form of group forwarding. With the rapid rise and popularization of information technology, Internet rumors are also growing wantonly, with the application and rise of browsers, various network social software, short videos and other apps. Under the background of network big data, hackers use security loopholes to collect information of network users under illegal circumstances, which brings many negative impacts to network users. Driven by interests, some Internet "hackers" often enter and invade through netizens' computers or mobile devices. Zhang Weifei, a senior editor of the People's Daily, sighed in an article: "It is

we who have ignored the important role of journalism schools in the reform of photojournalism. This has resulted in today's situation that no matter how hard the newspapers work, they still fail. There are five fields of biomedicine, economics and trade, ecological environment and social management. By sorting out the literature in each field, we hope to explore the internal relationship between ethics and knowledge. and evolution trends, and refine the rules and constraints on knowledge development under the ethical framework. The data collection of real-world research is carried out simultaneously with clinical medical treatment, so some experts believe that the objects of data collection are only ordinary patients, not subjects.

2.3 The Ethical Challenge of New Media Network Modeling

Photojournalists need to process and produce rich news materials on the basis of providing them. In the traditional paper media era, news photography objects are mainly aimed at the paper media era, and the main way of presenting news in the paper media era also relies on news pictures. Ethical issues arising from the application of information technology represented by machine rights cannot be separated into a single type of single factor. For example, the issue of forced separation will result in incomplete analysis angles and biased analysis directions. Therefore, it is necessary to comprehensively look at and analyze machines. Ethical issues of rights. In response to the ethical issues arising from subjective factors such as being addicted to the Internet, disgusting interpersonal communication, lack of online integrity, and worrying about the "human rights" of robots, we should continuously strengthen the ethics education of netizens, standardize the online ethical environment, and guide netizens to establish a correct Internet ethics. In the construction of network ethics, in addition to clarifying the status of photojournalism in new media, it should also be seen that in professional courses, photojournalism is the intersection of journalism, radio and television journalism, communication and other professional disciplines.

3. CONCLUSION

In the new media environment, the teaching of photojournalism is more unique and novel. Colleges and universities should vigorously improve the level of teachers, improve relevant teaching equipment, and expand new media practice platforms; teachers should better grasp the teaching content. It has reached a consensus among media people to make pictures with depth. At the same time, with the emergence of new media, photojournalism is not only a form of expression in printing, but multimedia production is the main direction for the development of photojournalism in the future. Discuss the ethical issues arising from the application of information technology from the perspective of ethics.

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Expression Recognition Algorithm Enhancements for Students Who Integrate Artificial Intelligence Games into Classrooms to Gain Sensitivity

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Abstract: This paper proposes an evaluation index system for students' learning performance in colleges and universities, which is composed of 16 indicators in four categories with the integration of artificial intelligence games into the classroom as the basic framework. In terms of functions and evaluation, the theoretical structure and analysis path have been improved. Guided by the improvement of residents' sense of acquisition, the index of students' sense of acquisition is selected. Combining the three-dimensional learning state space with the emotional dimension theory, by analyzing the students' expressive states in the pleasant dimension, combined with the intensity of arousal and valence, an effective classroom state division method is realized, based on behavior theory.

Keywords: Expression Recognition Algorithm, Integrate Artificial Intelligence, Classrooms to Gain Sensitivity

1. INTRODUCTION

With the development of the social economy, the gradual establishment of the market economy, and the increasingly fierce social competition, the requirements for the comprehensive quality of college students [1] are increasing. Therefore, the learning effect of students during school is increasingly important. Face expression recognition generally includes three parts: face localization, facial feature extraction and expression classification [2]. The information technology classroom is a platform for implementing artificial intelligence education. The author uses his own understanding and practice of artificial intelligence to explore with the teaching case of the lesson "Zoo Quest - "Curve" Tool" [3]. One of the difficulties in this research is how to extract It can generate complete, robust, compact and discriminative expression features to improve the classification accuracy [4].

In recent years, there have been many methods for recognizing expressions in static images. For this reason, our school has tried to introduce the "Wukong" [5] intelligent educational robot into the classroom, aiming to cultivate people with morality, combining artificial intelligence with teaching and cultivating students' healthy lifestyle [6], to improve students' scientific literacy. Sandbox Game, a game type of its own, the core of the game is "creating and changing the world", the game is usually non-linear, does not force the player to complete the main goal [7], the player can play a role (the protagonist or creator), interact with a variety of environmental elements in the game, and create things to change the world. The Education Informatization 2.0 Action Plan (abbreviated as the 2.0 Action Plan) [8] is an inevitable choice to adapt to the development of education in an intelligent environment, and a specific implementation plan to promote "Internet + Education" [9].

In the 2.0 action plan, it is proposed that information technology and intelligent technology should play a role in the whole process of education [10]. Enhancing the sense of achievement of the common people is not only the core task of the work of the Party Central Committee and the

government, but also the focus of attention from all walks [11] of life in our country. It not only reflects our country's positive response to the fundamental interests and vision of the masses, but also reflects the grand goal of building a moderately [12] prosperous society in an all-round way: the more concentrated the energy, the greater the weight of the regional center [13], the closer to zero. When the energy is completely concentrated on the center point, that is, only the most central weight is 1, and the others are zero [14]. This filter has no effect on the image and has no denoising effect [15].

The early automatic recognition of micro-expressions mainly focused on how to distinguish micro-expressions and macro-expressions [16]. Tomas Pfister was one of the earliest scholars to try micro-expression recognition. In the early days, Tomas Pfister et al. [17] found that CLPB-TOP (associated completed LBP) operator. Student learning performance evaluation is to use scientific means and methods under the guidance of certain values [18] to judge the learner's learning premise, learning state and learning effect, so as to optimize learning activities. The goal of facial feature extraction is to extract the features that can well represent the expression changes. Before feature extraction [19], the input facial expression image needs to be pre-processed, including denoising, face detection, face region geometric normalization, grayscale normalization and localization of table feature regions [20].

This is not only the basic part of the "Paint" software, but also the supplement and deepening of the pencil tool, the "Brush" tool [21], and the color fill tools. "Wukong" is an intelligent educational robot that is popular with students, lively and highly interactive. It can say and jump, and it has a display screen in the eye area [22], which can show various expressions. When you say "Goku, Goku, sleep" to it, it will squat and make a dormant posture. MZ World is based on "My The community built by the world. This sandbox gameplay offers endless possibilities [23]. In addition to the building challenges, it enables students to conduct online

research, which is then presented through the construction of scenes in the play space [24].

Students can also explore digital citizenship by building virtual micro-communities in the game that correspond to high school [25]. It shows that learners' academic mood can significantly affect their learning effect, but further research is still needed to optimize these research results [26]. Domestic scholars have shown through research that academic emotion is an important non-intellectual factor that affects students' academic performance [27].

2. THE PROPOSED METHODOLOGY

2.1 The Artificial Intelligence Games Integrated into the Classroom

The evaluation of course teaching effect in my country's colleges and universities mostly adopts the method of comprehensive calculation of comprehensive score of expert evaluation, student evaluation, peer evaluation and self-evaluation. The comprehensive score is the basis for measuring the teaching effect of the course. The teaching object of this class is fourth grade students. They have a strong interest in information technology courses. The students are already familiar with the interface of the "Paint" software, and have mastered the selection of foreground and background colors. The author uses the sound sensor to the principle is to use a noise detector to obtain the size of the noise, so that students can understand that noise refers to the sound that is too loud and endangers human health, which will form noise pollution and bring adverse effects on people's mood and the surrounding environment.

Design a study career and simulate real-life scenarios by building a university in a virtual space. And use this virtual space to realize the life experience in the real society. Of course, before organizing related activities, some norms need to be determined, and students should abide by and implement them, so as to avoid students being too immersed in it. The concept of deep learning comes from the development of computer technology and artificial intelligence. Influenced and inspired by neuroscience, and has become more and more closely related in the continuous development, the definition of artificial intelligence is proposed from the perspective of application, and the concept of deep learning is proposed from the internal operating mechanism and internal operating mechanism.

2.2 The Students Who Integrate Games Into Classrooms Gain Sensitivity

The common algorithms and typical applications of deep learning and machine learning are shown in Table 2-2: when constructing measurement indicators, the actual situation should be combined to make the indicators more specific and operational. Based on the analysis and induction of a large number of literatures about national fitness public services and residents' sense of acquisition, the researchers in my country believe that the effective behavioral characteristics of teachers' teaching are as follows: Five dimensions: teachers' teaching skills, depth and breadth of subject knowledge taught by teachers; teaching style in teaching; positive personality and psychological characteristics of teachers. In the selection area, it is easy to find that eyeballs and eyebrows are more important than other areas. It is much darker. Based on the above, the grayscale histogram of the candidate window area can be analyzed.

First, sort all the pixels in the window according to the gray value, and then select the 5% pixel with the smallest gray value as the candidate area of the eyeball. In addition, you can also add a garbage sorting game timing system, and record the records through competition. The time of the garbage sorting game, "Wukong" broadcasts the time, allowing players to improve the accuracy of their answers. That is to say, most students do not have a positive academic mood ten minutes before class and ten minutes before get out of class.

2.3 The Emotion Recognition Algorithm Enhancement for Students Gaining Sensitivity

The basic expression library is the basic database used to train the neural network, which usually consists of pictures or encoded files. In this research, the basic expression library is an important library file used to train the network after coding the artificial intelligence network. The artificial intelligence network trained by the basic expression library will realize specific functions. The specific regulations on the quality and quantity of activities are not only the basis for measuring the quality of teaching, but also the direction of teachers' teaching efforts.

According to the above description, the characteristics of Gabor filter are determined by the direction of scale v and μ , and a series of scales v and direction μ can be selected to obtain a set of Gabor filters, which is called a Gabor filter bank. Let artificial intelligence enter the primary school information technology classroom. As a teacher, you should first familiarize yourself with the relevant applications of artificial intelligence technology, and think about how to infiltrate artificial intelligence into the classroom skillfully. Teach students how to organize from four aspects, including: entering the door Put shoes in the shoe cabinet, tidy up the desk after finishing the homework, return the toys, get up and make the bed in time, etc., so that the students can reproduce the life scene and learn the method of tidying up. Through the process of human-computer interaction, students can complete the work independently from the past The homework becomes training the AI with what it has learned. Throw away the passive learning style of doing homework and evolve into actively exploring the joys of teaching and learning to discover your own shortcomings and improve them. The various organizations of the national fitness public service are independent of each other and lack contact with the old Sichuan. For example, there is a lack of connection between official mass fitness organizations managed by the government and spontaneous non-governmental mass fitness organizations, and the division of labor is unclear.

3. CONCLUSION

Artificial intelligence technology has become more and more popular in daily life, but it is still in its infancy as a curriculum to enter primary schools and needs further practical exploration. More importantly, teachers should integrate artificial intelligence into campus life through various activities, a facial expression recognition algorithm based on brightness detection and SVM. Experiments show that the algorithm can effectively extract feature vectors related to expression changes, with a high recognition rate and easy automation. On this basis, it is enriched, and it is proposed to measure the sense of gain from the three varieties.

4. ACKNOWLEDGEMENT

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Security of Higher Vocational Student Management Information Platform Based on Internet IP Cross-Validation Algorithm

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Abstract:The algorithm first uses the improved PSO optimized K-means algorithm (IPMeans) to cluster the intrusion data and increase the aggregation degree of the same data type. The promotion of education management informatization construction requires cooperation between higher vocational colleges and information technology companies, and cooperation with information technology companies. Brother colleges and universities cooperate and build together; at the same time, a high-quality information technology talent team is formed; the construction of information resources co-construction and sharing system is accelerated; the original unreasonable education management mechanism is reformed. Then the processed data is divided into 10-CV, and then use the cross-validation method to further improve the BP algorithm. The simulation results show that the BP algorithm based on cross-validation is better than the traditional BP algorithm.

Keywords: Higher Vocational Student, Management Information Platform, Internet IP, Cross-Validation Algorithm

1. INTRODUCTION

Network intrusion [1] refers to the illegal operation of system resources without user authorization. With the continuous in-depth research in recent years, the intrusion detection model with machine learning algorithm as the core has become a research hotspot in the field of network security. In the modern society in which my country's comprehensive national strength and technological development level are constantly improving and progressing [2], the Ministry of Education also proposes to promote the development of vocational education informatization, extensively and thoroughly implement the establishment of an informatization service platform, and improve the e-government of vocational education ability [3].

As a typical data-driven modeling method, neural network has been deeply and widely studied. Among them: Single hidden layer feedforward neural network (SLFNN) has been widely used in many fields due to its strong learning ability. application [4]. A reasonable artificial neural network model should have a reasonable number of hidden layer nodes, and be able to obtain the comprehensive result of the global minimum point [5].

In view of the slow convergence speed of the existing neural network BP algorithm, many researchers have done a lot of research on it from different perspectives. The standard has promoted various colleges and universities to manage students through networking and informatization, and promoted the construction of an informatization platform. As far as the response policy is concerned, it is very necessary for higher vocational schools to carry out informatization construction [6].

In the management of student information in colleges and universities, new difficulties and challenges have been ushered in. With the development of the Internet industry [7], it is a necessary development trend to combine students' information management work with the Internet, and to

establish an efficient student management informatization platform, thereby improving the quality of management and promoting the all-round development of higher vocational colleges [8]. In the modern society in which my country's comprehensive national strength and technological development level are constantly improving and progressing, the Ministry of Education also proposes to promote the development of vocational education informatization [9], extensively and thoroughly implement the establishment of an informatization service platform, and improve the e-government of vocational education ability [10].

As an emerging interdisciplinary science, education management applies the theories and basic ideas of two types of disciplines, one is education and the other is management, and then aims at various educational practices to manage the existing in the education system [11]. To study the problems, so as to reveal the general laws existing in education management. To ensure a high detection rate and reduce the system training time, the corrected kernel function SVM algorithm proposed by Jing Xiaopei et al. [12] solved the imbalance problem of training samples.

However, due to the complexity and diversity of network data, it is still difficult for intrusion detection systems to train network data [13]. Entering the talent information of digital campus and information campus into the school's information service platform to promote the modernization of management education in higher vocational colleges is one of the key points to realize and comply with the requirements of modern digital campuses [14]. And the complete and efficient information digitalized campus service platform is also the management of higher vocational colleges into the normative governance system of the Ministry of Education. However, the Back Propagation (BP) algorithm, as a commonly used learning algorithm for single-hidden layer feedforward networks, has obvious defects, that is, the iterative method

based on gradient descent has a slow convergence speed and is easy to fall into local minima [15].

In the standard BP algorithm, the choice of the learning rate greatly affects the convergence speed of the algorithm: if the learning rate is too large, it may cause the network to oscillate or even diverge; on the contrary, if the learning rate is too small, the network converges slowly [16]. The traditional student management requires a lot of manual operations, so in the actual work, it is necessary to increase human input to ensure the normal operation of student management. Information construction can improve work efficiency and reduce the pressure on students and staff in vocational schools [17].

2. THE PROPOSED METHODOLOGY

2.1 The Internet IP Cross Validation

Algorithm

K-Means algorithm [18] is to use the advantages of the global search ability of the particle swarm optimization algorithm, optimize the initial k value before the K-Means algorithm clustering, and then divide the data set D into k classes sj for The research on leave-one-out cross-validation algorithms has achieved some results.

Here, the specific derivation process is omitted, and the main results are given directly. If the standard is met, the next set of training data is learned, otherwise the training samples are used to learn to modify the weights. In order to get a good learning effect, both training samples and validation samples should participate in learning as much as possible and generally, 10-fold cross-validation is selected.

2.2 The Higher Vocational Student Management Information Platform

The information management in the school can unify and standardize the integration of students' information materials, and store the entire information in a large database. Different from traditional student information management, information management completely avoids the loss of student information and materials, and also greatly The problem of recording and finding student information is greatly shortened. At present, the main body responsible for student management in most vocational schools is full-time counselors, and their work is mainly focused on daily ideological education for students in vocational schools.

Since many counselors are the direct managers of students, counselors have a lot of student management affairs every day, including student leave, examination notices, scholarship evaluations, etc. They do not fundamentally improve work efficiency; various management departments within the college, work content Inconsistent, lack of teamwork spirit, failure to reasonably establish a student information sharing platform, which seriously affects work efficiency and brings difficulties in normal operation. In higher vocational colleges, the campus card is the most common and the highest utilization rate. Therefore, this has also become a The most important part of promoting the construction of digital campus has become the foundation of important reference information provided by campus informatization construction, and is the main line of connecting various applications on campus by means of informatization.

Informatization management can greatly reduce the workload of school management, but also reduce the workload of teachers. Teachers can quickly learn about students' dynamics based on online data searches, and can also avoid problems

through informatization management. Partial conflict. Its running time increases in a quadratic trend with respect to the number of samples, which is not suitable for dealing with large data sets. Compared with ELM NLOO, the ELM 10F algorithm also has obvious advantages in running efficiency, but it is slower than the ELM FLOO algorithm. Informatization Technology not only needs to use information technology in work, but also needs to integrate information management ideas into daily work to carry out work, establish corresponding management systems, and cooperate with information construction. Under the background of modern science and technology era, higher vocational schools, as national professional talent training bases, have a positive impact on the development of higher vocational colleges by improving the awareness of information construction. Leaders of higher vocational colleges need to strengthen the concept of informatization, enhance their awareness of development in the new era, and strengthen the construction of student management informatization platforms.

2.3 Manage The Security of The Information Platform

At present, many higher vocational schools are backward in understanding and simply use some software in their work, without formulating management systems according to the actual needs of information management work, which makes the actual use very rigid. In the absence of systematic planning, many functional systems are independent. In the construction of vocational student management informatization, as the legal awareness of modern vocational college students gradually increases, it is necessary to clarify the development direction of student management work first. According to national laws and school rules and regulations, establish and improve the management system, combined with the specific work situation of the college. The campus network security ability is weak, etc.

Secondly, among the colleges and universities taking courses, colleges and universities in the central and western regions account for 67.5%. From one aspect, it reflects that the teaching platforms and teaching methods of colleges and universities in the central and western regions are relatively simple, and the teachers' informatization teaching ability is relatively lacking. However, although the construction of student information platform plays an important role in the management of higher vocational schools, it also has some problems. With the great increase in the number of students in vocational schools, various information materials about students have also increased, and the software used in the big data statistics in the school's internal background is gradually difficult to bear.

3. CONCLUSIONS

Security of the Higher Vocational Student Management Information Platform Based on Internet IP Cross-Validation Algorithm is studied in the paper. We use the novel technology to design the novel ideas and in the future, the applications will be applied.

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Recent Applications of Artificial Intelligence in Computer Network Considering Big Data Methods

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Abstract: Recent applications of artificial intelligence in computer network considering big data methods is studied in this research. The development of computer network technology has also been better developed and used globally because of its high performance and many development advantages. The biggest advantage of artificial intelligence technology is to be able to dig and analyze data better, to be able to analyze different users finely, so as to better assist in decision-making. Therefore, this paper discusses the novel suggestions for the AI based model.

Keywords: Big data methods, recent applications, artificial intelligence, computer network

1. INTRODUCTION

In the actual application of computer network technology, information technology can then provide a convenient basis for industrial transformation and upgrading. The effective combination of general data mining technology and artificial intelligence technology is an important trend in the future development of computer network technology.

The biggest advantage of artificial intelligence technology is to be able to dig and analyze data better, to be able to analyze different users finely, so as to better assist in decision-making. According to the review, the focuses of the AI has the 2 core features for referring.

(1) The use of artificial intelligence technology can ensure the security of computer operations. It is also possible to manage the Internet computer network environment and also regularly maintain the network security system to further improve the application rate of computer network technology and Problem solving ability.

(2) At present, artificial intelligence technology can already be seen in people's daily life. For example, artificial intelligence technology emerging in the knowledge transfer and intelligent language. We can use artificial intelligence technology to simulate routine and further process-oriented operation and maintenance tasks to achieve structured management of the management and other issues.

Artificial intelligence technology can transform a single point of information into multiple pieces of information, ensuring that the acquired data information is true and effective, and can also enhance information analysis capabilities, and then, the figure 1 shows the big data methods and in the following sections, the details of applications of artificial intelligence in computer network considering big data methods will be considered in detail.

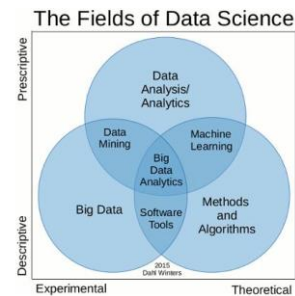


Figure. 1 The Big Data Methods (Source URL: <https://www.zarantech.com/blog/can-differentiate-big-data-analytics-statistical-predictive-modelling-techniques/>)

2. THE PROPOSED METHODOLOGY

2.1 The Big Data Network Analysis

Computer network technology will generate a large amount of data information in the application process, and it will then consume a lot of labor and the time costs in the application process. Therefore, relevant managers need to further extract effective value information through systematic data mining analysis and integration, so as to apply it to the development of the industry. Speed in big data refers to the speed of generating data as well as the general speed of analyzing and processing data. The demand for the smart mobile devices has increased greatly in the information age, and the information flow is increasing at a faster rate, which simultaneously makes big data real-time analysis and planning technologies more popular. For the big data scenario, the security concerns will be essential. In the era of big data, the application of artificial intelligence can further improve the management level of the computer network information security.

In the manual technology application process, technicians can building computer firewalls and anti-spam system to reduce the leakage of information. Although although many network security mechanisms have been established to make people a better network experience, the computer network systems still suffer from user information leakage with network systems still have the problem of user information leakage. Then, we should consider the 3 major aspects shown as the table 1.

Table 1. The Computer Security Issues

Issue	Details
Risk Prediction Based on Big Data	Predictive analytics is the technique of predicting future outcomes based on historical and currently updated data.
Openness of the Network	During the open use of the network, TCP/IP protocol in the Internet environment, it is difficult to reflect its own security, data information processing functions appear a certain lack, increasing the uncertainty of network information security.
System Vulnerabilities	It is common for people to use patch fixes to resolve system vulnerabilities problems, until the relevant repair work is completed, the computer will face a more serious serious information security threats.

2.2 The Applications of Artificial Intelligence in Computer Network

Artificial intelligence technology includes expert decision-making methods, which can help the people effectively solve various problems they encounter in a short period of time when they use computer network technology. In the process of disposal, there will be mistakes in the length of complex operation and maintenance work, which will cause problems in the quality of operation and maintenance. Based on this situation, artificial intelligence technology can be used to then realize the operation and maintenance of the complex network management work. The main reason is that, on the one hand, artificial intelligence technology can further quickly classify information and avoid problems caused by human operations; on the other hand, it can also improve the overall quality of the system management. Artificial intelligence technology can use computers to perform calculations to analyze and process network information data.

Because of the high accuracy of its calculation results, it can greatly prevent unnecessary consumption of the manpower, material resources and financial resources. The application of artificial intelligence technology to computer network system evaluation is more intelligent to help users solve some common technical problems, and it can make good detection of computer systems, assess the status of the computer system operation, and also better inform users of the corresponding operations.

3. CONCLUSION

Recent applications of the artificial intelligence in computer network consider big data methods is studied in this research. Artificial intelligence technology can provide more intelligent algorithms and service technologies, effectively solve various problems in computer networks, and improve the quality and efficiency of the computer network operations. Through the in-depth analysis, the applications are discussed.

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Expression Method and Aesthetic Expression of Fashion Design from Different Essential Perspectives

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Abstract: Expression method and aesthetic expression of fashion design from different essential perspectives is the main focus of this study. From ancient times to the present, people's pursuit of the natural beauty of clothing has been expressed in both the East and the West. The multi-dimensional evaluation model of clothing beauty combines various factors. It is a comprehensive evaluation model of clothing beauty. By using scientific calculation methods to evaluate clothing beauty in multiple dimensions, it helps to better integrate design into art and life. The real meaning of the beauty of simplicity in fashion design lies in respecting the existence of natural forms and focusing on the harmony of nature.

Keywords: Expression method; aesthetic expression; fashion design; essential perspectives; different model

1. INTRODUCTION

Modern clothing has bright styles, simple lines, and relatively simple colors, which can well adapt to the general fast-paced production and lifestyle in the industrial age, and generally meet the aesthetic needs of general public. For the garment industry, in order to then respond positively to the national development plan of sustainable development, it is necessary to innovate the current stage of the garment production and garment design, so that it can develop in the direction of core greening and ecology, and improve the aesthetics.

Based on the review, the design should have the following core focuses.

(1) Clothing structural lines include dart lines, dividing lines, etc., which belong to the internal shape design of clothing. The dart line is generally distributed on the waist, chest, shoulders, etc., and its core function is to collect the excess material produced when wrapping the body to highlight the body curve.

(2) The idea of deconstruction is a perfect interpretation of breaking through the routine. Whether it is appearance or the design concept, deconstruction adheres to an unconventional attitude and conveys the designer's unique insights into the work to people.

(3) The appearance of the garment can use the method of the material superposition, superimposing fabrics of some core different materials to enhance the layering and visual impact of the garment design, and express the deep emotions that the designer has put into the garment.

The overall clothing pattern is more independent and free. If used properly, it can well reflect the concept and thought of the clothing designer, making it more in core line with the psychological needs of the core target group. The second is the principle of the central decoration, which refers to the decoration of the central parts of clothing such as the chest, abdomen, and back. These positions are eye-catching, it can reflect the cultural connotation concentratedly and also clearly, reflect the designer's design concept and the pursuit, and the effect is twice the result with half of the effort. Hence, the details will be considered for the comprehensive analysis, and in the figure 1, the sample is presented.



Figure. 1 The Aesthetic Expression of Fashion Design (Image from Internet)

2. THE EXPRESSION METHOD AND AESTHETIC EXPRESSION OF FASHION DESIGN

2.1 The Focuses of the Fashion Design

There are many kinds of general traditional cultural elements, showing Chinese characteristics. Applying them to modern clothing design can improve the cultural quality of designers, provide ideas for modern clothing design innovation, enhance the artistic value of clothing, and help to promote and inherit our country will be the essential focus. Fashion designers use the principle of segmentation to divide the interior into some different functional areas, which not only further satisfies the convenience of putting on and taking off the clothes, but also improves the artistic aesthetics of clothes.

The separation and splicing of internal patterns follows the design inspiration of clothing appearance, conveys the core idea of design with delicate expressive techniques, and builds a framework for the overall shape.

At the same time, we consider the green scenario of the design patterns. When designing clothes, the most important part is the shape of the clothes. In the ecological era, the design of the green clothing should also follow this design concept, and design clothing styles with green ecological characteristics. Clothing design is a process of the artistic creation, and the handling of every detail will further determine the artistic temperament of the work. The bold and detailed design of the

deconstruction will bring more innovative ideas to clothing design.

At present, the more common green clothing materials in China are mainly fibers. This material has less impact on the natural environment in the process of use, and presents clean characteristics overall, hence, we consider this combination.

2.2 The Aesthetic Expression of Fashion Design from Different Essential Perspectives

Clothing aesthetics is subjective and uncertain because it is mixed with human emotional factors. Different people will have different aesthetic evaluations for the same clothing, and the aesthetic evaluations obtained by the same clothing in the different environments will also be different.

Aesthetic interest reflects a person's aesthetic choices and evaluations in the form of subjective preferences.

Aesthetic interest in the clothing is a concrete reflection of a person's aesthetics of the clothing. Usually, clothing aesthetic interest is reflected in people's daily wear, while being able to suggest some other personal information. Hence, we should analyze the issue from the listed aspects.

(1) When designing clothing, it is necessary to pay attention to the shape of clothing, the beautification and decoration of colors, and the novel and unique patterns, so as to increase the role of clothing with people as the main body and beautify people's lives.

(2) Fundamentally speaking, the general clothing, accessories and makeup are artificial and unnatural. The most authentic natural image of man should be Adam and Eve in the Garden of Eden. Therefore, the natural beauty mentioned in this article is not its semantic meaning. When clothing wraps the body in various artificial and artificial forms, people still want to make these "artificial" and "artificial" more natural and also natural.

(3) In addition to practical factors, clothing design should also consider whether it is economical. Of course, the economic concept of the clothing has its relative nature. The so-called "high-end" and "low-end" clothing cannot be measured by the same economic scale.

The aesthetic characteristics of color are expressive, and can convey emotions such as the enthusiasm and indifference, liveliness and melancholy, gorgeousness and simplicity. The color beauty of clothing needs to combine color and clothing style. Material function aesthetics is mainly the effectiveness of clothing and clothing aesthetic evaluation of the sense of general sight and touch, depending on the needs of human physiological activities, is the embodiment of a clothing base beauty. The common feature of the aesthetic appeal of Chinese and Western clothing design is to express people's feelings about nature and their own concepts by means of clothing materials, fabrics, colors, etc.

Clothing is the expression of emotion, philosophy of life, and spiritual essence which will be essential.

3. SUMMARY

Expression method and aesthetic expression of fashion design from different essential perspectives is the main focus of this study. As a general social science, aesthetics is produced and developed on the basis of the material life and spiritual and cultural life of society. The evaluation of clothing beauty is a complex judgment process, which is the result of the core

comprehensive coordination of various factors. It requires the people to think scientifically and rationally to then reach a reasonable judgment. In the next stage, we will consider the study of the different applications.

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Exploration and Research on Innovative Strategies of Photojournalism Considering Rich Media Perspectives

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Abstract: Exploration and research on innovative strategies of photojournalism considering rich media perspectives is studied. The general advantages of professional photojournalists are strong political awareness and overall concept, strong news sensitivity, diverse expression techniques, and the courage to pioneer and innovate. Therefore, we consider the novel perspectives of the different sources to construct the efficient photojournalism considering rich media perspectives.

Keywords: Rich media perspectives, photojournalism, innovative strategies, exploration and research

1. INTRODUCTION AND OVERVIEW

In the era of integrated media, more attention is paid to the form of products, integrating text, pictures, audio, video, etc., which enriches the single form of expression of traditional media, and also some theoretical promotional content is also presented in a lively and vivid way. In the transformation period of media integration, strengthening the optimization of the omnimedia process, the integration and layout of business forms, and the construction of the omnimedia platform have become the key directions of this period. In the continuous construction of integrated media, the demand for the all-media talents has gradually become diversified and multi-layered. Hence, we will be based on this to propose the novel ideas on the innovative strategies of photojournalism.

In the figure 1, we refer the (https://uplandsoftware.com/kapost/resources/blog/rich-media-examples-benefits/) to show the components of the rich media.

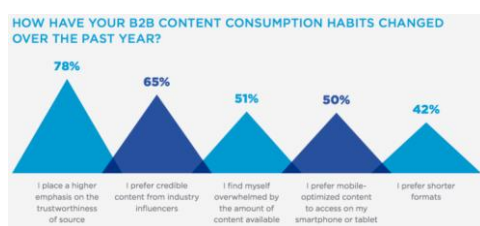


Figure. 1 The Components of the Rich Media

2. THE KEY IDEAS

2.1 The Basis of News Photography

Zygmunt Baumann believes that modern society is changing from a solid state of solidity, heaviness, and well-defined shapes to a fluid, lightness, and variety of liquid shapes. Using this fluid, liquid concept to understand today journalism is the multidimensional and rapid change of the journalism, which is mainly reflected in Previously precise and stable patterns and norms are constantly being broken and subverted.

The popularity of short videos has brought great changes to people's social sharing core activities, and more and more audiences are keen to receive, watch and share videos. This diverts a large part of the audience's attention from static

pictures to dynamic short videos, in the figure 2, we show the screen shot of the short videos.

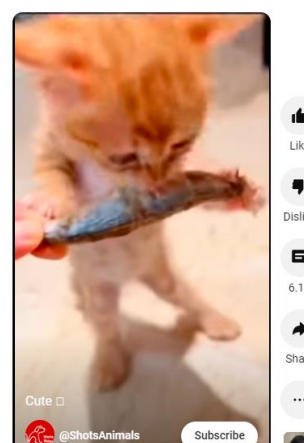


Figure. 2 The Screen Shot of the Short Videos

The general advantages and disadvantages of the professional photojournalists are evaluated by the SWOT analysis method commonly used in management science.

The general advantages of professional photojournalists are strong political awareness and overall concept, strong news sensitivity, diverse expression techniques, and the courage to pioneer and innovate. The value and function of the news photography can be summarized below.

(1) The flat media is an important carrier of traditional news image dissemination, and the news content is displayed in the form of printed images. In the context of the all-media era, media channels such as the Internet, television, and also radio allow news photography to have more diverse expressions. At this time, news pictures and videos have achieved effective integration of the different perspectives.

(2) The more information a news photo condenses, the more newsworthy it becomes. News photos are a combination of the photographic images and text descriptions with news elements, and the requirements for both should be consistent. For example, the content of the report should be true, and the image of the content should also be true.

(3) News photography has a certain degree of publicity and public opinion guidance. It can not only publicize beautiful things, but also criticize and expose the ugly phenomena of the general society.

News photography has many skills and artistic expression methods. In order to improve the novelty and appreciation of pictures and attract the audience's attention, journalists must strengthen the quality control of the news pictures, constantly improve their photography skills, and also restore real events through pictures. Strengthen the core authenticity of the news, trigger people's thinking, and improve people's satisfaction. Press as the beauty of the photography is that it is distinctly contemporary and unconventional.

Photojournalism works provide sufficient information content, but also through appropriate techniques and techniques to achieve pleasing photos. The application of digital technology in the field of photojournalism has combined photography with mobile phones and the Internet. In recent years, it has also been connected with artificial intelligence technology. The convenience of coming and going makes the main body of photojournalism diversification.

2.2 The Photojournalism Considering Rich Media Perspectives

The development of the network is also providing an effective platform for media integration. The upgrade of the network from 4G to LT to 5G is more and more conducive to video output, which is also quietly affecting the reading habits of the public. News pictures condense news events into short clips, make three-dimensional things into flat images, and use news scenes as a limited space. Therefore, concreteness is the main feature of its information content.

Photographers should reasonably control news pictures when taking pictures amount of information. The transformation of media fusion is a challenge for the development of traditional radio and television media, and it is also an opportunity for its innovative development. Whether it is a staff or a manager, a core clear awareness of this has certain significance for the development of traditional media.

In the era of general media integration, using big data recommendation algorithms can match information with users more precisely. For example, "TikTok" adopts an intelligent information distribution mechanism, uses big data to find out the news that users prefer to browse, and then pushes them the content they want to watch or like to watch, attracting and retaining users through high-quality news. We can use VR, AR, MR, XR and other technologies to produce and launch micro-movies, short videos, animations, illustrations, H5 and other integrated media products to form our framework.

3. CONCLUSION

Exploration and research on the innovative strategies of the photojournalism considering the rich media perspectives is studied. Photojournalism works provide sufficient information content, but also through the appropriate techniques and techniques to achieve pleasing photos. We consider the novel ideas of the rich media to construct the efficient model. In the future, we will consider the further applications.

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Application Analysis of BIM in Modern Architectural Design and Renovation: A Systematic Study

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Abstract: Application analysis of BIM in modern architectural design and renovation is studied in the paper. The BIM technology has great advantages, BIM cloud platform technology can realize three-dimensional visualization dynamic management, file sharing, real-time communication and other functions, so that project management tends to be simplified and also faster. BIM technology is based on the establishment of the three-dimensional model to add information and data related to the project, through the establishment of the building model, and the use of digital information on the proposed building a high degree of simulation. This paper studies the novel ideas of the BIM to construct the efficient ideas.

Keywords: Systematic study; BIM; application analysis; architectural design; design and renovation

1. INTRODUCTION

BIM technology is called "building information model". It mainly integrates traditional two-dimensional construction drawing data with the three-dimensional digital technology to form a new engineering data model. The BIM technology has great advantages, BIM cloud platform technology can realize three-dimensional visualization dynamic management, file sharing, real-time communication and other functions, so that project management tends to be simplified and also faster, and then can further strengthen quality management and improve management efficiency.

Application points of the BIM technology in infrastructure management can be considered as the follows.

(1) In the general design phase, the main application of BIM technology is reflected in collision detection. The generation of 3D simulation diagrams on the basis of engineering design parameters can not only help the designers and technicians understand the situation of the construction materials more intuitively, but also help to verify design results, and further clarify the problems existing in the core design through the comprehensive collision detection.

(2) Based on BIM technology, it is still possible to carry out simulated construction before then formally entering the construction site, and timely predict and deal with possible problems in the project to reduce construction risks and also hidden dangers.

(3) The BIM design model is an important part of information management and smart construction. It is mainly reflected in precise positioning and three-dimensional display in the cloud platform. It is similar to the role of a chain to connect various engineering design, construction, operation and maintenance information in series.

Therefore, the data obtained by the traditional method of cost analysis cannot meet the requirements of the detailed cost analysis, and at the same time it is difficult to conduct report analysis, and it is also difficult to find the cost problem corresponding to a single project or a certain process, or to find out the specific cost problem. The traditional cost analysis tends to the core financial analysis stipulated in the contract, because the cost statistics and analysis are often

carried out after the whole project is completed or after a certain stage of construction, which has little influence on the cost control in the construction process. In the figure 1, the BIM structure is presented.



Figure. 1 The BIM (from: <https://www.wsp.com/zh-cn/services/building-information-modelling-bim>)

2. THE PROPOSED METHODOLOGY

2.1 The Application Analysis of BIM

BIM technology is based on the establishment of the three-dimensional model to add information and data related to the project, through the establishment of the building model, and the use of digital information on the proposed building a high degree of simulation. Demonstrate the excellent information collection function of the BIM technology, quickly call the surrounding environment of the site, draw 3D topographic basic data maps, and effectively analyze the environment of the production site.

Through the simulation and analysis of the site environment, combined with a new route optimization algorithm, simulate and generate relevant transportation routes suitable for the site environment. The different stage of the BIM applications can be summarized as the follows.

(1) The construction team uses the BIM technology and the information data to manage the staffing, building material usage, equipment and also equipment in each link of the construction, and adjust the general construction procurement behavior in a timely manner according to actual construction situation and market price changes, so as to avoid additional

cost changes during the construction stage. , so as to ensure that cost management of construction projects is scientific.

(2) Import the construction plan of the construction unit into the BIM model in advance, clarify the construction cycle of each process, and help the on-site construction personnel to fully understand the construction steps and site conditions by simulating the construction environment, and strengthen the progress control as a whole.

(3) In the decision-making stage, cost staff can simulate the proposed building model based on the built BIM model, information, and cost, and then calculate a more accurate investment estimate, providing a basis for the investment decision-making and financing, figure 2 shows details.

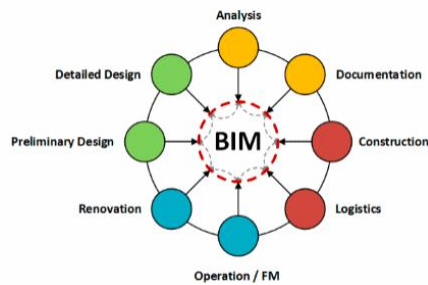


Figure. 2 Application Analysis of BIM (refer: <https://www.dormakaba.com/tw-en/sales---support/bim-application>)

2.2 The Modern Architectural Design and Renovation

There are usually two forms of the renovation of existing buildings: overall renovation and partial renovation. In the overall renovation, only the main structure is retained, and all electromechanical systems are redesigned.

Although the design of the system is similar to that of a new building, the design of the main engine room and main routing will be then restricted by the current civil engineering conditions. Reinforcement and transformation must ensure that it meets the purpose of the use, ensure the safety and durability of the building, facilitate construction and the later renovation and maintenance, and coordinate the economy with the environment.

Different structures have different performance requirements. When modifying structural performance, it is necessary to consider the remaining service life, the purpose of design and use, and the importance of the modification and other factors. Specifically, combined with the two-dimensional drawings and the actual construction site conditions, BIM technology was used to model and design the building monomer and the construction site.

With the help of the parameters and visibility of the BIM technology, the design efficiency of the renovation project was improved, and at the same time It also allows operators to understand the microscopic structural space characteristics of the renovation project through the data model, and optimize the layout of the construction site.

3. CONCLUSION AND SUMMARY

Application analysis of BIM in modern architectural design and renovation is studied in the paper. The emergence of BIM technology has brought new ideas and solutions to China's existing residential buildings for energy-saving and emission reduction transformation, which helps the modern China's

existing residential buildings to then solve the real problems encountered in the transformation project, such as analysis of building structure, analysis of the building energy-saving and emission reduction capacity.

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Research on Key Technologies of 3D Rendering Algorithm in Urban Architecture Design

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Abstract: With the rapid development of 3D rendering technology, the country attaches great importance to the strategic significance of the "digital city", and the emergence of high-performance mobile devices has given the mobile terminal 3D city visualization technology a broad development prospect and strong technical support. Based on the Android mobile platform, this paper studies the key technologies of 3D city visualization. Focus on the establishment of 3D city models, 3D data organization, and the use of their respective advantages in 2D and 3D to realize the linkage display of 2D and 3D city scenes, and realize the multi-resolution display of 3D cities through the streamlining of building models and the study of model selection strategies. The final design realizes the mobile terminal 3D city visualization interactive system.

Keywords: Key Technologies, Urban Architecture Design, 3D Rendering, 3D modeling

1. INTRODUCTION

People who have used Google Earth or other 3D virtual digital earth software will definitely have various impacts on their vision, such as their powerful geospatial data storage and display capabilities, realistic terrain and 3D visualization of buildings, and flexible operations. vivid memory. All this seems so real, giving people a feeling of standing somewhere on the earth. These are all derived from the rapid development of computer graphics technology and three-dimensional geographic information technology, coupled with the powerful calculation and rendering capabilities of modern graphics hardware, can give people Bring this kind of value, and the research content of this article is just another innovation in the field of digital earth using these technologies. In the construction of digital city projects based on digital earth, building models have gradually become the most important visual element. With the expansion of the application of digital city projects, the requirements for the accuracy and quantity of building models are getting higher and higher. The three-dimensional visualization of large-scale building models has become a research focus of Digital Earth [1-6].

At present, the research of domestic and foreign scholars is mainly based on the secondary development or bottom development of the above-mentioned visualization platform. ArcGIS has created the latest weapon of the "new generation of Web. GIS platform", ArcGIS. 10.3, which will further integrate resources and functions and provide them in the form of Web, while users will use multiple terminals to access them anytime and anywhere. Skyline is an excellent three-dimensional platform software that can use remote sensing data, digital elevation data, vector data, and 3D data to create interactive visualization effects; it supports the creation, browsing and analysis of real three-dimensional surface landscapes, building landscapes, etc. SuperMap is useful for 3D GIS products specifically aimed at the mobile terminal. The API based on SuperMap on the mobile terminal can obtain 3D data online or offline for real-time display, and the display effect is better. Imagine. Virtual. GIS platform provides users with a three-dimensional operating platform that can roam in real time, with functions such as

visualization, visual analysis, and real-time through-flight [7-12].

CityMaker mobile version supports Apple IOS and Android systems, supports network data services and local data files, supports 3D scenes, visualization of terrain, multi-touch interactive roaming, smooth scheduling of city-level massive data, and exquisite scene rendering effects. With the concept of "Smart Earth and Smart City" being proposed, many three-dimensional virtual models above or below the surface of the earth, such as various buildings, roads, pipelines, hydropower systems, etc., need to be more and more intelligently and networked. Efficiently load it into the digital earth and form the Internet of Things to realize the organic integration of human society and physical systems. Therefore-the development needs of digital cities have brought higher efficiency requirements for 3D virtual models, especially building models, in various stages of visualization. Due to the advancement of smart city construction and the continuous advancement of digital methods, many research institutions have conducted research on building model construction methods in recent years. In foreign countries, Stanford University in the United States used a laser rangefinder to digitize close-up buildings and achieved good results; Canada developed the NRC 3D Imaging platform for model restoration of cultural relics and other buildings [13-17].

2. THE PROPOSED METHODOLOGY

2.1 The Urban Architectural Design

With the continuous improvement of environmental protection awareness and the gradual emphasis on physical and mental health, people's requirements for residential areas have also changed. A healthy, comfortable, and green environment is the ideal living environment for people. In today's era, urban architectural design needs more attention. To meet people's needs for greenness and health, integrate ecological concepts into architectural design to realize the harmonious coexistence of nature, architecture and people. The residential area needs to have excellent lighting performance, ventilation performance and sound insulation performance. Since the building is used for long-term residence, the content of chemical pollutants in the indoor air must be strictly controlled to ensure human health. The

architectural design embodies the ecological concept, which means that the building must be integrated with the surrounding environment, and the space must be fully utilized to create a green environment. Various green plants such as shrubs and trees can be planted around the building.

In addition to the buildings in the residential area, the buildings in the city also include the buildings in the industrial area. The buildings in the industrial area are also an important part of the urban architectural design. The general direction of the architectural design of the industrial zone to embody the ecological concept is to adopt reasonable design, scientific planning and the combination of architecture and greening. Industrial zones mainly carry out industrial production. Compared with the damage caused to the environment by residential areas, industrial zones put greater pressure on the environment. Industrial production will inevitably produce a lot of pollution, such as air pollution, dust pollution, and noise pollution. According to this characteristic of the industrial zone, its architectural design should minimize pollution and avoid pollution to human health.

The design of the interior of the building is very complicated. To reflect the ecological concept inside the building, a multi-faceted design is required. The interior design of the building should strengthen the efficient use of energy. The building is required to improve the energy system in the design process to maximize the effect of energy. In general, designers should take measures in three aspects during the architectural design process. (1) The level of architectural design should be improved, and (2) designers should combine the actual situation of the indoor environment to formulate scientific energy improvement plans. (3) On the premise of focusing on efficient use of energy, ensure the functionality and aesthetics of the building.

2.2 The 3D Rendering Technology

Level of detail (or level of detail, multi-level of detail, English: Level of Detail, abbreviated as LOD) technology refers to determining the resource allocation of object rendering according to the position and importance of the node of the object model in the display environment, reducing non- the area and detail of important objects, so as to obtain efficient rendering operations. Level of detail algorithm is a very important research content in computer graphics. Due to the huge differences in the structure and organization of data, spatial distribution, and programs that need to be simplified for different rendering data, LOD is also a research difficulty in the field of graphics. In the digital city, as mentioned above, three types of data need to be implemented with the level of detail mechanism. Now the author will introduce the common mechanisms for realizing LOD in combination with several digital earth products at home and abroad. To use a camera to model a close-range actual building, firstly, it is necessary to obtain the necessary control point information from the control measurement of the house. Follow the implementation steps of first control and then photography, and obtain close-up images of the house in accordance with the pre-designed plan.

For buildings with special structures, every detail must be photographed; but for ordinary buildings, first analyze and consider the symmetry and reproducibility of the building structure, and only the basic parts that are not repeated can be photographed. Usually, only the vertical facade of the building is photographed, and two or more strips are formed through such upright photography to form a free net, which is used as the basis for calculating the three-dimensional object

point. According to photography standards, the overlap between every two adjacent images on the same strip must be higher than 65%. After analyzing the experimental area, this article adopts the one-on-one shooting forward method. The whole building was photographed, and the roof images that could not be obtained were supplemented with the help of high-resolution satellite images. In the next analysis and processing, since the subject is a building, its biggest feature is the rich and specific features of points and lines, such as its own structural lines, window lines, and crossing lines and points caused by tiles. In order to obtain the initial values of the internal and external orientation elements of the image in its model coordinate system.

2.3 The Three-Dimensional Rendering Technology in Urban Architectural Design

To use building information modeling technology to achieve the integration of engineering design and construction, it is necessary to solve existing problems, overcome numerous difficulties, and integrate building construction with building information processing. The integration process of architectural engineering design and construction is the unification and integration of architectural information and architectural production. It is to integrate the collected building information, design a building model based on the data, and plan and arrange the overall construction of the building. The building construction is carried out on the basis of the architectural design. And they have a unified operating platform, which is carried out under a unified plan. The traditional architectural design and construction are separated. The functions of the intelligent management platform mainly include the provision of a deep design database, the modular management of the progress of the component production stage, warehousing, and logistics, the integrated management of personnel, machinery, materials, construction methods, and the environment in the on-site construction stage, and the control of the construction progress and correction, and the handover of the database during the operation and maintenance stage.

When designing a building, designers should use building information modeling technology, build building information models based on specific data and information, and make a budget for construction costs, and then visually simulate later construction on this basis. Of course, the ultimate goal of the design is to allow the construction personnel to carry out construction according to the design drawings. In order to achieve the integration of construction and design, the construction personnel are required to participate in the design of the construction drawings in the design.

3. CONCLUSIONS

With the rapid development of 3D rendering technology, the country attaches great importance to the strategic significance of the "digital city", and the emergence of high-performance mobile devices has given the mobile terminal 3D city visualization technology a broad development prospect and strong technical support. Based on the Android mobile platform, this paper studies how to build a 3D city model based on 2D and 3D rendering technology data and realize real-time rendering of 3D scenes through reasonable data organization. First, it introduces the traditional 2D modeling in urban architecture and the most recent 3D. Modeling foundation, and then analyzed the new method of urban architectural design based on 3D rendering technology.

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Effect of Group Games Integrated Into Classroom Teaching on Improving Sense of Acquisition Of College Students' Ideological And Political Courses—Taking The Course "Ideology, Morality and the Rule of Law" as an Example

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Abstract:Effect of group games integrated into classroom teaching on improving sense of acquisition of college students' ideological and political course is studied and we take the course "Ideology, Morality and the Rule of Law" as an example for the comprehensive study. The "morality and law" course integrates ideological and also political education and moral cultivation education, with Marxism and socialism with Chinese characteristics as the spiritual core. This paper integrates the novel group games integrated into classroom teaching on improving sense of acquisition of college students' ideological and political courses, the discussions are further considered to provide the suggestions.

Keywords: Group games; classroom teaching; sense of acquisition; college student; ideological and political courses; rule of law

1. INTRODUCTION

In December 2016, General Secretary Xi Jinping pointed out at the National Conference on Ideological and Political Work in Colleges and Universities, "To make good use of the main channel of the classroom teaching, ideological and political theory courses must be strengthened through improvement, and the affinity and pertinence of the ideological and political education should be enhanced to meet the needs of students growth and development needs and expectations". Marxism is the theory of science, the theory of the people, the theory of practice, the theory of continuous development and openness, and the core unswerving "truth" and "ideal" for which the Communist Party of China is striving, and hence, the core education of the ideological and political courses will be then essential for the related applications.

Currently, we are still facing with some challenges in the ideological and political education. There are still some universal problems in the practice teaching of ideological and political theory courses in colleges and universities, that is, the practice teaching is in a fragmented state, each practice goes its own way, and each practice link lacks a systematic construction.

This greatly weakens the effect of the practical teaching, and cannot highlight the characteristics of ideological and political theory courses. To further enhance and improve the practical teaching of the course, the systematic construction of the core practical teaching of the course is an effective way. Then, the function can be summarized into 3 core items.

(1) Through the study and practice of the "thinking and repairing" course, it can help the college students form a relatively systematic concept of the rule of law in real life, continuously strengthen their subjective will to act according

to the law, and thus lead their own progress with correct values in practice.

(2) Academic education is an education that pays equal attention to the knowledge and quality. The ideological and political theory courses of universities undertake the task of guiding students' thoughts and correcting their values.

(3) In the process of continuous upgrading of the "Thinking" course, the gradual cultivation of the rule of law thinking has enabled the majority of college students to gradually establish the basic concept of governing the country by law, and at the same time realize the importance of doing things according to the law, thus making the rule of law the basic direction of social development.

In the figure 1, the Ideological and Political Course image from the Internet is shown.



Figure. 1 The Ideological and Political Course (Image from Internet)

2. THE PROPOSED THEORY

2.1 The Course "Ideology, Morality and the Rule of Law" and Ideological and Political Education

Since the 18th National Congress of the Communist Party of China, the Party Central Committee with Comrade Xi Jinping as the core has adhered to its original aspiration and mission, making socialism with Chinese characteristics full of vitality in the new era, and the Chinese nation is on the bright road of the "becoming strong" to realize the greatness of the Chinese nation revival has entered an irreversible historical process, hence, our focus should be based on this background.

The "morality and law" course integrates ideological and also political education and moral cultivation education, with Marxism and socialism with Chinese characteristics as the spiritual core. The teaching goal of the "Germany and Law" course is to scientifically educate students on issues such as life development, ideals and beliefs, value choices, spiritual cultivation, moral practice, and rule of law thinking that college students face by using Marxist positions, viewpoints, and methods. Ideological and practical guidance, improve the level of ideological theory and moral cultivation, so that they can become qualified newcomers of the era to take on the great task of national rejuvenation. We should consider the following suggestions.

(1) Practical teaching subject content system is the most important part in the systematic construction of the practical teaching in the whole course. In the process of designing course practice teaching, it is necessary to follow the thematic, systematic and optional principles, and pay attention to the combination of classroom practice and extracurricular practice.

(2) In terms of the theoretical teaching, one is to distinguish ideology and morality from the rule of law for special topic design, and set up special topics according to the advantages of teachers' professional background. A course is undertaken by the different teachers, and professional teaching is more obvious; Invite relevant experts or other teachers to participate in their own special teaching during the operation of special teaching.

Accordingly, the evaluation of practical teaching needs to pay attention to three points: first, it is specific and comprehensive, and the evaluation criteria are set from the aspects of practical attitude, practical process and practical results; the proportion of the large practice teaching assessment in the total score of the entire course assessment. The course of the "Ideology, Morality and the Rule of Law" adheres to the guidance of Marxism, and requires the basic principles of Marxism to be implemented in teaching activities. Therefore, the important proposition of "ideal belief" naturally undertakes the task of distinguishing between scientific ideals and non-scientific ideals, and dealing with the relationship between individual ideals and beliefs and social ideals and beliefs.

2.2 The Effect of Group Games Integrated into Classroom Teaching

Group psychological assistance must rely on a variety of the activities. Although colleges and universities have offered group psychological assistance courses one after another, because the assistance process is too boring, some college students often cannot give full play to their active and active role in the process of participating in activities.

There is no team collaborative spirit, resulting in a mere formality of the ancillary process. Psychological group counseling class is different from other classes. It is more inclined to heuristic and experiential teaching. Classes are mostly based on activity experience and sharing.

Students' classroom learning status is easy to change with activities and games. Therefore, we have the following suggestions.

(1) Psychological support—the basic composition of the pattern of the psychological education: focus on curriculum teaching, build a teaching system, and use measures such as optimizing the course content, innovating teaching methods, exploring teaching models, integrating resources, and further strengthening multiple evaluations to play the main channel of classroom teaching effect.

(2) Positive evaluative instructions are the teacher's feedback on the students' learning status, effectiveness of the classroom, making it more contagious and provocative, and stimulating. It encourages students to participate more actively in activities.

(3) Psychological capital, as an internal psychological ability of the head teacher, can promote the self-improvement and self-realization of the head teacher. Through the development of psychological capital, the occupational well-being of head teachers can be improved, and positive group psychological counseling can become an effective path for the development of psychological capital.

3. CONCLUSION

Effect of group games integrated into classroom teaching on improving sense of acquisition of college students' ideological and political course is well studied and we take the course "Ideology, Morality and the Rule of Law" as an example for the comprehensive study. In the supplementary course of the psychology group, the psychology teacher is the companion and learner of the students, learning and growing together. Psychology teachers' clear instructions on the supplementary courses of the psychology group come from the familiarity with the teaching structure, the understanding of the students' cognitive level, and the thinking about the presupposition of teaching. Hence, this paper gives the novel suggestions and also the further solutions for the analysis.

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Analysis of Drug Resistance Characteristics of *Acinetobacter Baumannii* in Burn Wound Infection

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Abstract: Analysis of drug resistance characteristics of *Acinetobacter baumannii* in burn wound infection is studied in this paper. The resistance rates of *Acinetobacter baumannii* to amikacin, ampicillin-sulbactam, and cefoperazone-sulbactam were low, and the resistance rates to these drugs were not significantly correlated with the intensity of their use. The study of MDR *Acinetobacter baumannii* bloodstream infection suggests that admission to ICU and application of more than 2 types of antibiotics are independent risk factors for MDR *Acinetobacter baumannii* bloodstream infection. This paper studies the background and the related applications.

Keywords: Drug resistance; characteristics; *Acinetobacter baumannii*; burn wound infection

1. INTRODUCTION

Burn wound infection is closely related to the general sepsis, inflammatory response syndrome, and multiple organ failure, and the emergence of the antibiotic-resistant strains poses a severe challenge to the use of burn infection medication. The severe wound infection is an important cause of systemic infection and even sepsis. Therefore, it is necessary for us to further understand burn wound infection.

The occurrence of burn infection is mainly due to the presence of a large amount of exudate in the burn wound, which is rich in protein and necrotic tissue, coupled with the destruction of the complete barrier function of the skin after burn injury. The exudate is rich in proteins and also necrotic tissues, and the complete barrier function of the skin is destroyed after burns, thus providing the very favorable condition for infection. The bacterial ecological pattern of burn wounds has changed over time, reflecting changes in burn treatment methods, and the choice of topical and systemic antibiotics is the main factor affecting the bacterial ecological pattern of burn wounds.

Based on the review, the basic solution can be considered from the following aspects.

(1) Topical application of the general anti-infective drugs and antibacterial dressings, the purpose of topical application of anti-bacterial drugs is to delay or reduce the colonization and invasion of microorganisms on the wound, prevent the spread of infection, deepen the wound, and gain time for surgery.

(2) Before the results of the clinical drug susceptibility test are available, drugs that are sensitive to the above pathogenic bacteria should be considered for treatment. After the results of the drug susceptibility test, sensitive drugs should be selected for treatment according to the results of the drug susceptibility test. At the same time, measures such as the disinfection and isolation should be strictly implemented to reduce the occurrence of cross-infection.

(3) The patient should be operated as soon as possible to remove necrotic tissue from the trauma, with special attention to the removal or drainage of infected lesions. In the figure 1, we firstly present the Sample of the Burn Wound Infection



Figure. 1 The Sample of the Burn Wound Infection

2. THE PROPOSED MODEL

2.1 The Burn Wound Infection Overview

The skin barrier function of burn patients is damaged, the body's immunity is weakened, and also patients are prone to infection after long-term use of antibacterial drugs. Infection is an important cause of death in burn patients, so prevention and control of infection is very important. Among the main pathogenic bacteria, *Staphylococcus aureus* is more harmful to patients. Gram-positive bacteria can produce streptokinase, protease, etc., which can decompose cellulite, making it easier to spread and enter the blood, and the toxin produced by *Staphylococcus aureus* can further make the wound surface Deepening, granulation tissue necrosis, difficult to clean the wound, more damage to the body.

Progress in prevention and treatment of burn wound infection have the following aspects.

(1) Silver ions, many of similar antibacterial drugs lose their effect after bacterial strains are resistant, so the application of other antibacterial drugs, especially silver ions, is considered to be an ideal external agent, which can then effectively prevent and treat local infections.

(2) Blue light technology, compared with keratinocytes, blue light treatment is more likely to cause the inactivation of the multi-drug resistant *Acinetobacter baumannii* strains.

(3) Some studies have utilized wound cleansers containing the surfactant component undecylenamidopropyl betaine, which removes bacteria and their debris and disrupts biofilms. The wound cleanser has already begun to be used in surgical clinics. Therefore, the development of anti-infective drugs for external use on wounds targeting drug-resistant bacteria and their biofilms has a good prospect.

2.2 The *Acinetobacter Baumannii* Resistance Analysis

Drug-resistant *Acinetobacter baumannii* (including multidrug-resistant, extensively drug-resistant, and fully drug-resistant *Acinetobacter baumannii*) is prevalent in the world, and has become one of the most important pathogens for nosocomial infections at home and abroad. *Acinetobacter baumannii* is one of the most important pathogenic bacteria causing the nosocomial infection. It can survive for a long time in the hospital environment and colonize the skin, respiratory tract, digestive tract and genitourinary tract of the human body that can lead to a variety of serious infections.

The reason why *Acinetobacter baumannii* can form drug resistance to almost all clinically available antibiotics is that three factors play a key role: ① The diversity of bacteria's inherent and acquired drug resistance mechanisms. ② It has the ability to survive for a long time in a dry environment. ③ Bacterial biofilm formation, the formation of biofilm is generally considered to be an important step for bacteria to invade the host. The infection rate is particularly high in patients with in vivo implants. In addition, in hospital wards, especially in ICUs solid surfaces, *A. baumannii* can survive as biofilm for a long time in the form of biofilm.

At present, most of the research on the bacterial resistance focuses on the mechanism of resistance of specific pathogens to specific antibacterial drugs. Studies have reported that there is a macro-quantitative relationship between the level of bacterial resistance and the amount of antibacterial drugs, and the two are closely related. The selection pressure of antibacterial drugs has accelerated the increase of bacterial drug-resistant strains.

3. CONCLUSION

Analysis of drug resistance characteristics of *Acinetobacter baumannii* in burn wound infection is studied in this paper. The drug resistance mechanism of *Acinetobacter baumannii* to various commonly used clinical drugs is characterized by diversification and complexity, and the research on it at home and abroad is not comprehensive at present. Hence, this paper gives the initial analysis for the model and in the future, the designed model will be applied to the ICU.

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Online Integration and Reconstruction Platform Interaction Research of Industrial Design Professional Guiding Model in Higher Vocational Colleges Based on Complex Information System

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Abstract: Based on the complex information system, this paper studies the education mode of the industrial design major in higher vocational colleges, and designs a background processing and online integration and reconstruction platform for the guidance network of the higher vocational industrial design major. Firstly, it analyzes the characteristics of the complex information system interface with Kernal as the frame, studies the application of the industrial design specialty in the complex information system interface design in higher vocational education, and implements the arrangement, topic selection, implementation principle, implementation process. Specific practice has been carried out in terms of assessment requirements and so on. The practice data is entered and processed based on MongleDB, and the online data is integrated and reconstructed using C++ modeling.

Keywords: Reconstruction Platform, Industrial Design, Professional Education, Complex Information System

1. INTRODUCTION

In recent years, with the transformation of the domestic economic growth mode and the improvement of people's living standards and requirements, art design has developed by leaps and bounds in my country [1]. However, due to the late start of art and design education in higher vocational colleges, and more reliance on the reference of relevant majors in undergraduate institutions of higher learning, the characteristics of higher [2] vocational art and design education are not clear, and the competitive advantage is low. The problems of higher vocational art and design education are mainly manifested in [3] the following aspects: the differentiated characteristics of talent training are not obvious; closed classroom teaching is still the main method, which is separated from the real environment [4] of the market and the industry. The complex information system consists of a large number of different types of information [5], its information and operation tasks are complex, and the operator's experience and cognitive level have high requirements.

With the continuous expansion of the application scope of complex information systems, such as nuclear power command and control, aerospace control [6], and battlefield command, people have higher requirements for the interface design of complex information systems. The traditional design process and concept are not enough to fully meet the needs of complex information system interface design [7]. How to design a complex information system interface with strong usability and good user experience has become a difficult problem for designers. At present [8], most of the higher vocational colleges in China are responding to the national policies and actively carrying out various forms of teaching reform [9]. The most important content of the reform revolves around the exploration and construction of the talent training model of "combination of work and learning, school-

enterprise cooperation" [10]. However, in the implementation process of some majors in many schools, most of them just stay on the surface. First of all [11], the primary condition for talent training - professional settings to meet market demand. Higher vocational colleges need to closely strengthen the connection and cooperation [12] with enterprises, attract enterprises to participate in all aspects of school education and teaching, conduct sufficient professional research, and clarify the medium and long-term needs of talents needed in the process of industrial upgrading [13] and the need for high-end skilled professionals. and timely feedback this demand into the adjustment of professional structure [14], so as to make the adjustment of professional structure and the demand of industrial structure upgrade as dynamic as possible [15].

On February 26, 2014, the State Council officially issued the "Several Opinions on Promoting the Integrated Development of Cultural Creativity and Design Services and Related Industries" with Guo Fa [16] No. 10. The release of the State Council's "Opinions" shows that the strategic measure of developing design services to promote transformation and upgrading has officially risen to the national level, which will effectively [17] promote the integrated development of cultural and creative industries such as creative design and industrial manufacturing and other economic fields. The development of industrial [18] design will also usher in the spring. Project teaching originated in the 1980s and was first seen in the "Project Teaching Method" co-authored by American educator Katz and Canadian [19] educator Chad. It is a talent training model with the direct purpose of cultivating practical talents. The current definition of project teaching is teaching in the form of "projects". The source of "projects" is the real work task process or job content of the enterprise, so that students can come into contact with the complete work method or work in line with the market in the process of learning and practice.

2. THE PROPOSED METHODOLOGY

2.1 The Complex Information System

The healthy state means that the node has no security risk in the complex information system network; the infected state means that the node has a security risk in the complex information system network. In this paper, this model is named Risk-SIS model, or R-SIS model for short. Where u It is called the domain of discourse of the information system, and each element in u is called the object of the domain of discourse, that is, the sample space of the data set, A is called the conditional attribute set of the information system, that is, the conditional feature set, and D is called the decision-making of the information system. Attribute set, that is, the class tag attribute of the dataset.

The main content of the system security architecture of the complex information systems is taking risks and strategies as the basis and starting point to then formulate the security architecture of complex information systems of organizations.

In the life cycle of the information system, basic safeguard measures are implemented for the technology, management, engineering, and personnel to ensure integrity of information.

2.2 The Educational Model of Industrial Design Major in Higher Vocational Colleges

This cooperation model is the most common way of cooperation at present. The project is initiated by universities and colleges, and the content is mostly based on joint training of talents. Through some majors applicable to enterprises, the school carries out a cooperative education model of joint training with enterprises, and transfers the classroom to the production, practice, and operation of enterprises. Based on this core cooperation model, the school cultivates students' practical ability and also comprehensive quality based on professional theoretical knowledge.

For this reason, the Design and Art Branch of our school actively responds to the call of the country and the school and conducts research on how to carry out the teaching reform of the combination of work and learning mode for the art design major in higher vocational colleges. The three majors are industrial design and product packaging design, animation design and production entry point. The current definition of project teaching is teaching in the form of "projects". The source of "projects" is the real work task process or job content of the enterprise, so that students can meet the complete work method or work in line with the market in the process of learning and practice. Therefore, to realize the connection and integration of teaching research and project practice. In order to improve the implementation quality and effectiveness of project teaching, it is necessary to establish a set of effective project teaching management systems and methods, which will help to achieve scientific management and make project teaching work.

It can be standardized and scientifically carried out. Therefore, based on the theoretical analysis of the curriculum mode and system of higher vocational art design education, the teaching mode of industrial design projects.

2.3 The Online Integration and Reconstruction Platform Interaction Research

The school-enterprise cooperation in the art and design majors of higher vocational colleges often leads to insufficient cooperation. The main problems are as follows:

1. The cooperation between enterprises and schools only stays in the part-time courses of individual employees, and the proportion of part-time courses is not high.
2. The school's traditional calculation method of class hours emphasizes professional titles and less ability, and the enterprise is not suitable for the talent demand.
3. The school's full-time teachers go to the enterprise for temporary training and suffer from too many limitations, difficult to implement.

In order to improve the implementation quality and effectiveness of project teaching, a set of effective project teaching management systems and methods must be established, which will help to achieve scientific management and make project teaching work standardized and scientific.

3. CONCLUSION

Based on the research on the concept and methodology of design thinking, this paper studies the application strategies of design thinking in the interface design of complex information systems, aiming at the characteristics of interface information complexity, task complexity and system diversity of complex information systems. , requirement definition, idea generation, prototyping and actual testing are elaborated in order to improve usability and user experience of complex information system interface, and bring some references and new ideas for future complex information system interface design.

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Path Analysis of Higher Education Promoting the Construction of the Hainan Free Trade Port

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Abstract: In June 2019, the Ministry of Education and the Hainan Provincial Government jointly issued the Implementation Plan on Supporting Hainan to Deepen Education Reform and Opening Up. It clearly proposed to support Hainan to build an international education innovation island and create a new benchmark for China's education opening up and development in the new era, which pointed out the direction and injected new momentum for the opening up and leapfrog development of Hainan's higher education to the outside world. From the perspective of theoretical traceability and practical foundation, this paper finds that the current higher education in Hainan Province has some problems. The regional layout needs to be further optimized and the depth of integration with key industrial parks is not deep enough. Some institutions have lagged behind in setting and adjusting their majors and some majors are not outstanding and the effectiveness of talent training needs to be further improved, etc. In order to promote the construction of the Hainan Free Trade Port with the development of higher education, the paper proposes four specific paths based on whether the potential demand can be predicted and whether the specific real demand is regular in the construction of the Hainan Free Trade Port.

Keywords: higher education; Free Trade Port; demand; path

1. INTRODUCTION

General Secretary Xi Jinping announced on April 13, 2018, at a celebration celebrating the 30th anniversary of the establishment of Hainan as a special economic zone, that "supporting Hainan in constructing a pilot free trade zone on the whole island, and in gradually exploring and steadily promoting the construction of a free trade port with Chinese characteristics." The subsequent release of the Guiding Opinions of the CPC Central Committee and the State Council on Supporting Hainan in Comprehensively Deepening Reform and Opening Up outlines a grand blueprint for the construction of Hainan's Free Trade Port and comprehensive deepening of reform. The specific guiding lines are proposed in "guiding ideology, strategic positioning, basic principles, development goals, building a modern economic system, promoting the formation of a new comprehensive opening-up pattern, innovating institutional mechanisms to promote the construction of an international tourism consumption center, serving and integrating into major national strategies, strengthening and innovating social governance, accelerating the reform of the ecological civilization system, improving the talent development system, and guaranteeing measures [Central People's Government of the People's Republic of China. Guiding Opinions of the CPC Central Committee and the State Council on Supporting Hainan in Comprehensively Deepening Reform and Opening Up. [EB/OL]. [2018-4-14]. http://www.gov.cn/zhengce/2018-04/14/content_5282456.html]. The introduction of the guidance marks the continuous promotion of China's comprehensive reform and opening up and the full-scale opening of the construction of the Free Trade Port in Hainan Province. National major strategic projects such as Belt and Road, International Tourism Island, and Free Trade Port construction provide important policy opportunities and external environment for the development of higher education in Hainan Province. In June 2019, the Ministry of Education and the Hainan Provincial Government jointly issued the Implementation Plan on Supporting Hainan to Deepen Education Reform and Opening Up. They clearly propose to support Hainan in building an international education

innovation island and create a new benchmark for China's education opening up and development in the new era, which points out the direction and injects new momentum for the opening up and the leapfrog development of Hainan's higher education to the outside world.

From the existing studies, the impact of higher education development is multifaceted, including adjusting the local industrial structure, improving economic structure, and promoting opening up to the outside world. Jiaqi Wu (2022) found that higher education can not only promote the transformation and upgrading of industrial structure from primary to secondary and tertiary industries, but also promote the internal upgrading of each sub-industry. Zhongjing Liu (2022) concluded that the benign and mutually reinforcing dynamic relationship between industrial structure and higher education structure has not been fully formed, and the promotion and leading role of higher education discipline structure on the industrial structure are not strong and there is a lag. Xinxin Xue (2022) studied the degree of coupling and coordination between education structure and industrial structure in three regions of Beijing, Tianjin and Hebei by establishing a coupling model, and got the highest degree of coordination in Beijing, followed by Tianjin and the weakest in Hebei. In addition to the regional differences, the temporal differences in higher education on industrial structure are also significant. Xiling Cheng (2021) obtained that higher education has a positive effect on the adjustment of industrial structure rationalization, but it is not prominent in the early period. In the long term, the contribution of higher education to the rationalization of industrial structure maintains a continuous rise with long-term stability. In terms of improving economic structure, most scholars believe that higher education has a close relationship with the transformation and upgrading of economic structure. Long Wang (2016) believes that the transformation and upgrading of higher education are closely related to the economic structure, on the one hand, higher education can promote the transformation and upgrading of the economic structure, on the other hand, the successful transformation of the economic structure can provide economic support for the long-term

development of higher education. Chun Tian (2021) argued the relationship between the hierarchical structure of higher education and economic structure by empirical analysis and concluded that the hierarchical structure of higher education is significantly and positively correlated with the economic structure, and the impact brought by the change of economic structure on the hierarchical structure is significantly greater than that brought by the change of hierarchical structure on the economic structure. Jun Wang (2021) constructed a comprehensive evaluation model of the coupled synergy level of local higher education and regional economic transformation and upgrading, which obtained that there is a high level of synergy development between local higher education and economic structural transformation and upgrading in Guangdong Province.

The academic community is also rich in research on the influence path of higher education on local economic development. Yifan Zhang(2019) argued that higher education can influence economic development in various ways, such as improving human capital, boosting urban consumption, and driving innovation and entrepreneurship. Higher education is regarded as the core of human capital formation, and Yangxi Liu (2014) obtained through empirical analysis that higher education development has a high positive correlation with regional economic development, but geographical location factors affect the strength of the positive correlation. The contribution of higher education to economic growth is most significant in Beijing, Tianjin and the eastern coastal region, followed by the central region and the lowest in the western region. Junpeng Di (2014) divided economic output into three major industrial outputs and found that higher education had different degrees of impact on different industries by analyzing the impact of higher education on the output of industry, agriculture and services. That is, higher education has the largest impact on the industrial sector, a statistically insignificant impact on the agricultural sector, and a significant positive effect on the output of the service sector. Peng Deng (2016) established a multiple regression model and found that higher vocational education resources across Xinjiang, both in terms of school distribution and the number of students trained, contributed to local economic development. The education and training of engineering, however, contributed to the development of secondary industry industries in each region, but the overall effect on graduates, enrollment, and the size of school students was not significant. Rui Mao (2013) believed that local higher education provides regional economic and social development by providing talent support, scientific and technological support, and by setting up higher education disciplines and specialties. It can meet the demand of regional economic restructuring, industrial upgrading, and social career development for various talents, and provide strong talents as well as scientific and technological guarantees for regional economic construction and social development.

The studies on free trade zones and the construction of free trade ports have mostly focused on analyzing different aspects such as finance, policy, law, trade environment and openness in the development process of free trade zone and free trade port construction. Meng Li (2017)[Meng Li, Management Innovation in Free Trade Zones: Lessons from Overseas Experience, Open Guide, No. 1, 2017, p. 75.] studied the innovation of the management system of China's free trade zones and proposed that improvements should be made in specific management modes and investment methods by drawing on advanced foreign experience. Yiwen Ling (2018) believed that due to the complexity of the international

economic environment, China has formed the "1+3+7" free trade zone pattern[Yiwen Ling, Bottlenecks Facing the Construction of Free Trade Zone and the Way Forward, Journal of Xinjiang Normal University (Philosophy and Social Science Edition), No. 6, 2018, p. 146.], and the existing free trade zones in China face bottlenecks in the development process such as lagging domestic supporting policies and trade protectionism. To break through the development bottlenecks, we should further rationalize the planning of development goals, promote industrial upgrading, optimize the construction of free trade zones in inland areas, and introduce effective supporting policies. Xiaolu Cao et al. (2018) argued that in the process of national efforts to build the free trade zone and free trade port in Hainan, a series of commercial disputes will arise that need to be resolved by introducing new mechanisms promptly, and should draw on the advanced experience of international free trade ports such as Hong Kong and Singapore to introduce dispute resolution mechanisms such as "temporary arbitration"[Xiaolu Cao and Chongmin Wang, Research on the innovation of temporary arbitration mechanism for the construction of free trade port in Hainan, Journal of Hainan University (Humanities and Social Sciences Edition), Vol. 3, 2018, p. 2.]. Guoqiang Ma et al. (2018) analyzed the financial environment of Hainan's Free Trade Port and found that the financial environment of Hainan Province is facing the problems of "not rich in financial types and few financial institutions"[Guoqiang Ma, Xiaotong Zhao, Analysis of the Financial Environment for Building a Free Trade Port in Hainan with Chinese Characteristics, Journal of Hainan University (Humanities and Social Sciences Edition), Vol. 6, No. 6, 2018, p. 27.]. And to optimize the financial environment of Hainan's Free Trade Port, it is necessary to further innovate the management mechanism in the financial field, and create a relaxed environment for regional capital flow. Learning from the advanced foreign experience, using advanced intelligent information systems, and relying on big data technology to realize the intelligence of the financial environment can promote the better and faster development of the Hainan Free Trade Port. Peng Sun et al. (2018) measured the "openness" of Hainan Province since its construction and constructed a specific index system of openness[Peng Sun, Wenli He, Shijie Li, Measurement of Hainan's external openness since the establishment of the province and comparison with other special economic zones - and policy recommendations for building a free trade port with Chinese characteristics in Hainan, Journal of Hainan University (Humanities and Social Sciences Edition), Vol. 6, No. 6, 2018, p. 8.]. They measured the degree of openness of Hainan Province in the past 30 years by using the entropy algorithm, and compared it with other regions in China, identifying specific gaps and fields that should be optimized. Tianbao Qin (2018) believed that the construction of the Free Trade Port in Hainan Province should focus on the relationship between the environment and trade. There are different views on the relationship between the two in theory[Tianbao Qin, Environmental Regulation in the Construction and Development of Free Trade Port, Journal of Hainan University (Humanities and Social Sciences Edition), Vol. 3, No. 3, 2018, p. 13.]. To handle the relationship between the two in practice, it should be improved from different aspects such as legislation, access conditions and dispute settlement mechanism.

In summary, it can be seen that few existing studies have analyzed the human resources and educational foundation of the construction of free trade zones and free trade ports, and especially little attention has been paid to how higher

education contributes to the construction of free trade zones and free trade ports. As the largest Free Trade Port in China, Hainan's higher education foundation is very weak. How to create and establish a new benchmark for comprehensive reform and opening up of higher education in the new era under the overall deployment of the Hainan Free Trade Port to help it develop? How to explore the feasible path to establish the synergistic development of higher education and economic society? These are all questions that must be answered for the construction of the Hainan Free Trade Port. Therefore, this study will take Hainan Province as an example to specifically analyze the basic path of higher education to facilitate the construction of a Free Trade Port.

2. Theoretical traceability and practical basis of high education to promote the construction of the Hainan Free Trade Port

2.1 Theoretical traceability

According to the analysis of system science, in the large system of society, there exist political, economic, cultural and educational subsystems (Figure 1). These subsystems interact and influence each other, and the education system will also influence other social subsystems and be influenced by other subsystems such as politics, economy, and culture. The "law of external relations in education[Maoyuan Pan, Wei Lian Wang, Higher Education, Fuzhou: Fujian Education Press 2013, p. 31.]" means that the various activities of the educational system have an inevitable interaction with the social system and its subsystems. The law of external relations in education determines that the development of education must be adapted to the development of the social economy. That is, on the one hand, the activities of education will be restricted by the economic, political and cultural development of the social system; on the other hand, the development of education must contribute to and continuously promote the economic, political and cultural development of the society. Being restricted is the premise, functioning is the purpose, and only under the specific laws governing education can better play its social function. The ongoing construction of the Hainan Free Trade Port will be constrained by the economic, political and cultural factors in Hainan Province and the country as a whole, and also requires higher education in Hainan Province to play an important role in the process of construction of Hainan Free Trade Port.

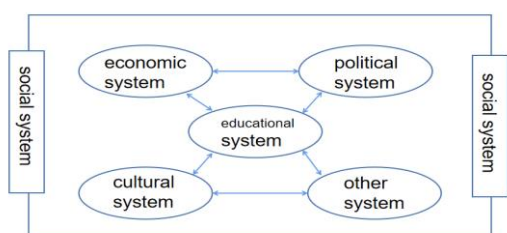


Figure. 1 Relationship between social system and other subsystems

Any social organization must respond to social needs in order to arise and exist. According to the famous American sociologist Brubacher, there are two main ways to establish the existence of a university, which are based on epistemology and political theory—two philosophies of higher education. From the philosophical basis of Brubaker's higher education existence, we can get that the existence of the university is and "ivory tower" or "social service station"[Jun Li, Yafeng Song, A Re-examination of the Purpose of Social and Personal Ontology Education, Educational Theory and

Practice, No. 10, 2017, p. 3.]. Higher education based on epistemology emphasizes the advanced study with idle curiosity and aims at knowledge production with concise theory, useful explanation, elegant concepts and rigorous logic. With the development of the social economy, universities had to come out of the ivory tower and began to gradually adapt and meet the increasingly rich social needs. For example, in the mid-19th century, the strong social demand created many multidisciplinary technical colleges in the United States[John S. Brubaker, On the Philosophy of Higher Education, Hangzhou: Zhejiang Education Press 1987, p. 15.], such as Rensselaer Polytechnic Institute, Lawrence College of Science, The College of Science of Sheffield, etc. Later, during the Civil War, the Morell Act prompted the emergence of agricultural and industrial colleges in various states of the United States. As time went by, the connection between higher education and social needs has become closer and closer, and the social service function of universities has gradually received the attention of society. The relationship between liberal education and professional education is not completely opposed, and the synergistic development of the two should become more important to our attention. Problems in the fields of government, business, agriculture, raw materials, international relations, education, health, etc., which could be solved by experience before, now require extremely profound knowledge, especially in the present era of knowledge explosion and rapid development of Internet technology, where knowledge is more rapidly differentiated and updated, and the best place to acquire knowledge and talents to solve the above-mentioned problems is in higher education institutions. This suggests that the construction of the Free Trade Port in Hainan Province needs different levels and types of professionals. These professionals can be acquired from talents trained by higher education in Hainan Province. The development of higher education in Hainan Province will also play an increasingly important role in the construction of the Hainan Free Trade Port.

2.2 Practical foundation

Looking at the number of colleges and universities in Hainan Province in the past 20 years, the number shows an obvious growth trend in colleges and universities setting from 1998 to 2020 (Figure 2), from 5 in 1998 to 20 in 2020, which has increased by four times and which has increased most rapidly in the context of higher education expansion at the end of the 20th century. The growing higher education institutions provide an important guarantee for the supply of talents and social services for the construction of the Free Trade Port in Hainan.

Higher education students are the main source of regional human resources. From the situation of higher education students in Hainan Province (Table 1), from 2008 to 2020, the number of students in regular institutions of higher learning, university undergraduate students in regular institutions of higher learning, junior college students in regular institutions of higher learning, university students graduated (completed) in regular institutions of higher learning, junior college students graduated (completed) in regular institutions of higher learning, etc. have basically shown a growing trend in the past 20 years. The increasing number of higher education students has laid a solid talent reserve for the construction of the Free Trade Port in Hainan Province.

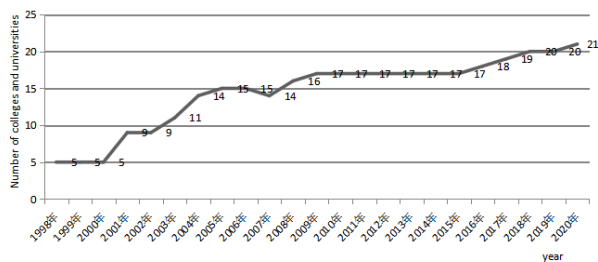


Figure. 1 Relationship between social syste

Table 1 Overview of higher education students in Hainan Province Unit: 10,000

Year	Enrollment number of regular institutions of higher learning	Undergraduate enrollment number of regular institutions of higher learning	Number of junior college enrollment at regular institutions of higher learning	Number of students in regular institutions of higher learning	Number of university undergraduate students in regular institutions of higher learning	Number of junior college students in regular institutions of higher learning	Number of students graduated (completed) in regular institutions of higher learning	Number of university students graduated (completed) in regular institutions of higher learning	Number of junior college students graduated (completed) in regular institutions of higher learning
2008	3.97	1.81	2.16	12.64	6.10	6.54	2.34	0.84	1.50
2009	4.64	2.13	2.51	14.21	7.01	7.20	3.08	1.06	2.02
2010	4.76	2.50	2.26	15.08	8.03	7.05	3.68	1.38	2.30
2011	4.64	2.40	2.24	15.67	8.79	6.88	3.92	1.58	2.33
2012	4.96	2.61	2.35	16.83	9.79	7.04	4.09	1.80	2.29
2013	4.93	2.57	2.36	17.21	10.30	6.92	4.38	2.00	2.38
2014	5.45	2.60	2.85	18.06	10.47	7.59	4.48	2.35	2.13
2015	5.24	2.70	2.55	18.29	10.60	7.70	4.82	2.50	2.32
2016	5.32	2.80	2.52	18.49	10.77	7.72	4.87	2.53	2.34
2017	5.22	2.80	2.41	18.55	11.04	7.52	5.04	2.49	2.55
2018	5.45	2.92	6.87	3.15	3.72	23.01	12.57	10.44	5.56
2019	6.86	3.12	6.86	3.12	3.74	20.74	11.87	8.87	5.28
2020	6.87	3.15	5.45	2.92	2.53	18.92	11.4	7.51	5.29

From the major settings of higher education institutions in Hainan Province (Table 2), there are multiple majors and the advantages of popular majors and characteristic disciplines are obvious. The popular majors are: English, tourism management, hotel management, marketing, financial management, computer science and technology, software engineering, law, international economics and trade, Chinese language and literature, logistics management, e-commerce,

etc. The major layout of higher education institutions in Hainan province is diverse, with prominent hotspots and distinct characteristics, which can provide professionals of all levels and types for the construction of the Hainan Free Trade Port. Among them, language majors and tourism and hotel management majors are the most set categories of majors in Hainan's colleges and universities, laying a good human resource reserve for the acquisition of translation talents and management teams during the construction of Hainan's Free Trade Port.

Table 2 Popular majors in higher education institutions in Hainan Province (top30)

undergraduate program					college major				
order number	name	frequency	order	name	frequency	order	name	frequency	order

number		cy	number		cy	number		u	nu		u
								en	um		en
								cy	ber		cy
1	English	10	16	HRM	4	1	tourism management	13	16	International cruise crew	5
2	tourism management	8	17	Japanese	4	2	accounting	12	17	HRM	5
3	hotel management	7	18	Exhibition economic management	4	3	hotel management	12	18	computer application technology	4
4	marketing management	6	19	communication engineering	4	4	Electronic Commerce	10	19	Automotive Marketing and Services	4
5	financial management	6	20	bio-science	4	5	marketing management	9	20	art layout	4
6	Computer Science and Technology	6	21	applied psychology	4	6	Computer Network Technology	7	21	secretary	3
7	software engineering	6	22	Visual communication design	4	7	Aircrew	7	22	Sports Operation and Management	3
8	law	5	23	physical education	4	8	Environmental Art Design	6	23	software technique	3
9	international economics and trade	5	24	Clothing design	4	9	Cooking technology and nutrition	6	24	Civil aviation transportation	3
10	Chinese Linguistic Literature	5	25	Dance	4	10	Automobile detection and maintenance technology	6	25	Civil aviation safety technology	3
11	physical distribution management	5	26	business administration	3	11	Mobile communication technology	5	26	Food nutrition and testing	3
12	Electronic Commerce	5	27	Ideological and political education	3	12	construction cost	5	27	Applying Russian	3
13	preschool education	5	28	Chinese International Education	3	13	Construction engineering technology	5	28	Electrical automation technology	3
14	musical performance	5	29	Engineering management	3	14	financial management	5	29	Architectural decoration engineering technology	3
15	accounting	4	30	Electrical & Information Engineering	3	15	physical distribution management	5	30	Real estate operation and management	2

3. Case analysis of the promotion of higher education to the construction of the Hainan Free Trade Port

The continuous development of higher education in Hainan Province provides strong intellectual support and talent guarantee for the construction of the Hainan Free Trade Port. The growing number of colleges and universities, the number of students, and a complete range of colleges and universities with prominent characteristics of the professional setting, all provide a variety of possibilities for Hainan's higher education

to play an important role in the construction of the Hainan Free Trade Port. At the same time, there are some problems in the promotion of Hainan higher education to the construction of the Hainan Free Trade Port. In order to make higher education better and promote the construction of the Hainan Free Trade Port, we should make a comprehensive analysis of the existing problems of higher education in Hainan Province. According to the current development of Hainan higher education, the main problems of higher education to promote the construction of the Hainan Free Trade Port can be attributed to the following aspects.

(a) The regional layout of higher education needs to be further optimized, and the depth of integration and development with key industrial parks is not enough.

Higher education institutions in Hainan Province are concentrated in Haikou and Sanya, basically in the old centers, where the development space has reached great limitations and there is a very strong demand for the construction of new campuses. Except for Hainan University, which is a multi-campus formed by the historical reason of merging two universities, Hainan Normal University, Qiongtai Normal College and Hainan Tropical Ocean College are mainly new campuses built because of the space limitation of the old campuses. The concentration of colleges and universities in both Guilinyang(Haikou) and Lizhigou(Sanya) is also not enough. University Town of GUILINYANG has been under construction since 2005, but there have been only 4 higher education institutions so far; Sanya Lizhigou Education Park was not planned as a college area from the beginning, which was formed naturally, but it is located in the downtown area and the available construction land is already very limited. The implementation scope of the Hainan Free Trade Port covers the whole island. There are eleven key industrial parks—Hainan Free Trade Port Yangpu Economic Development Zone, Hainan Free Trade Port Boao Lecheng Pilot Zone of International Medical Tourism, Hainan Free Trade Port Haikou Jiangdong New Area, Hainan Free Trade Port Haikou National High-tech Industrial Development Zone, Hainan Free Trade Port Lingshui Li'an International Education Innovation Pilot Zone, Hainan Free Trade Port Wenchang International Space City, Hainan Free Trade Port Sanya Central Business District, Hainan Free Trade Port Haikou Fulling Internet Information Industrial Park, Hainan Free Trade Port Haikou Comprehensive Bonded Area, Hainan Free Trade Port Sanya Yazhou Bay Science and Technology City, Hainan Free Trade Port Ecological Software Park. But limited by historical reasons, the layout of universities and colleges in Hainan Province is not enough combined with industrial parks, and no university is located in the main industrial parks.

(b) There is a lag in the major setting and adjustment of some high education institutions.

The untimely setting and adjustment of majors in some colleges and universities in Hainan Province are one of the limiting factors for higher education in Hainan Province to help the construction of the Hainan Free Trade Port. Majors are different specialized fields of knowledge composed of courses according to academic or vocational disciplines, which is a form of curriculum and an important carrier for talents trained in colleges and universities. Through the statistical analysis of the major settings of 19 higher education institutions in Hainan Province in the past 5 years, it is found that there is a serious lag in the major setting and adjustment of some colleges and universities. A zero tariff system for island-wide customs operation is expected in Hainan Province in 2025, making it open to international goods at the first line, strengthening supervision over imported goods at the second line, and vitalizing free trade in the whole island. All kinds of trade generated in this process is an important form of an international free trade port. However, the major setting of higher education in Hainan lags behind seriously, which can't solve the problem of trade-related talent shortages in Hainan Free Trade Port in the future. Take the major of International Economics and Trade at Hainan University as an example, its major setting only includes international business law, international trade insurance and financing, international trade

practice and other theoretical courses. The teaching process stays at the level of theoretical analysis, and does not set up other trade courses with Free Trade Port characteristics, like Free Trade Port business environment, offshore trade and so on. And due to the lack of international trade sandbox simulation and other experimental courses, students can not deduce the actual Free Trade Port transaction process, making students lack recognition towards importers and exporters, import and export banks in the learning process. The lag of major settings makes it difficult for colleges and universities to make timely predictions and responses to the changes in industries and talents needed in the context of the rapid development of Free Trade Port, which makes it difficult for the talents cultivated by colleges and universities to better adapt to new industries and the changing needs. The obvious "hindsight" in the setting of majors is a prominent problem in the process of high education to promote the construction of the Hainan Free Trade Port. In addition, the adjustment of some outdated majors set by some colleges and universities in Hainan Province is not timely enough. Through the analysis of the enrollment prospectus of colleges and universities in Hainan Province in the past 5 years, it is found that some colleges and universities have not adjusted too much to some majors that obviously cannot adapt to the needs of industry, and there is obvious path dependence. The lag of setting up new majors and the untimely adjustment of "outdated" majors make it difficult to adapt the talents cultivated by higher education in Hainan Province to the development demands of industry and economy, which will also limit the role of higher education institutions at all levels in the construction of Hainan Free Trade Port.

(c) Features of some majors are not outstanding

Although the number and types of majors in higher education institutions in Hainan Province are relatively complete, their regional characteristics and institutional characteristics are not very prominent. Through a statistical analysis of major settings in present higher education institutions in Hainan Province, it is found that there is no distinct difference in major settings regarding leading fields, research direction and distribution of popular majors between Hainan and other provinces. Characteristics are a unique style or traits shown by a certain object in a certain time and space. Institutional characteristics and professional characteristics mean the competitiveness and lasting vitality of the development of colleges and universities. The development of characteristics is the core of quality and high-level of higher education, and it is also the choice of every higher education institution in the process of formulating the development strategy of the institution. However, by analyzing the major setting and talent cultivation mode of the existing higher education institutions in Hainan Province, we can find that the so-called characteristics of some institutions are more formal ones at the level of propaganda, and the concept of characteristics is not really integrated into the whole process of institutional development and talent training. Some institutions are even in short of majors with regional characteristics or these kinds of majors are in a poor educational situations, which will limit the high level and rapid development of higher education in Hainan Province. The unique climate, geographical location, history and culture of Hainan Province provide many advantages for the development of higher education in Hainan Province, and also provide diversified choices for the setting of majors in Hainan higher education institutions. On April 14, 2018, the State Council put forward Guiding Opinions of the CPC Central Committee and the State Council on Supporting Hainan in Comprehensively Deepening Reform

and Opening Up, which mentions that it is necessary to promote the transformation and upgrading of tourism and accelerate the framing of the characteristic tourism industry system. As a tropical island, Hainan has many types of distinctive cultures such as Li culture, tropical marine culture, and Southeast Asian architecture culture. However, taking the Hospitality Institute of Sanya as an example, its tourism management-related major only offers the basic courses of tourism marketing, electronic commerce and so on, but did not involve the study of Hainan's special culture, lacking Hainan's local special resources. At the same time, due to the unique geographical advantage of Hainan Island located in Southeast Asia and the policy of visa-free entry into the Hainan Free Trade Port, the number of foreign tourists continues to climb. However, due to the existing hotel management and tourism management industry talents mostly from vocational education, the educational level is poor. Cultural education is neglected in major settings which leads the employees cannot provide quality service to tourists in terms of language communication, especially English communication, and domestic and foreign cultural differences. In order to better promote the construction of the Hainan Free Trade Port, the higher education institutions in Hainan Province should actively echo the actual needs of Hainan Free Trade Port construction in the major setting, and deeply develop the institutional and professional characteristics of the higher education institutions in the province.

(4) The effectiveness of talent cultivation should be further improved

Whether the type and quantity of major settings in the existing institutions of higher education in Hainan Province are closely related to the needs of the industrial and economic development will directly affect the pertinence of major settings, and the lack of pertinence of majors will further affect the effectiveness of talent training. Through the analysis of the talents training of the existing institutions of higher education in Hainan Province and the development needs of the industrial economy of Hainan Province, it is found that there is still much room for improving the pertinence of major settings and the effectiveness of the talent training. The establishment of training objectives for different majors is an extremely complicated process, which must go through extensive research and strict argumentation. The establishment of training objectives is the interaction between the subjective factors such as educational philosophy, school ideology and education concept of the higher education institutions and the objective factors such as social productivity, economic and political system and science and technology development level. Irrational major setting and training objectives will affect the raise in effectiveness and scientificity of talent training in higher education institutions. At present, the construction of the Hainan Free Trade Port needs international talents. The enterprises generally reflect that the urgent shortage of talents mainly includes three types, namely, high-end talents with innovation ability in the industry, communication talents who are familiar with international rules and cultural differences, and trade talents who are familiar with the capital operation and business rules. But from the current situation, the internationalization level of Hainan higher education is low, the province is in short of international talent training. Take Hainan University as an example, which has a high level of internationalization in Hainan higher education. There are only 3 Chinese and foreign talent training programs and only 5 overseas internship programs. The number of programs is limited, and

only a narrow range of students can benefit from these programs. In addition, the school platform support is insufficient. At the same time, some universities in Hainan Province also enroll some majors for junior colleges, which is obviously "incompatible" with the development orientation of the school, the pertinence of major settings, and the enhancement of the effectiveness of talent training. The existence of these phenomena will further restrict Hainan's higher education to effectively meet the real talent demand for the construction of the Hainan Free Trade Port.

4. Path analysis of promoting higher education to serve the construction of the Hainan Free Trade Port

The development of higher education in Hainan Province plays an increasingly important role in the construction of the Hainan Free Trade Port. In order to make higher education institutions in Hainan Province better promote the construction of the Hainan Free Trade Port, it is necessary to further clarify the problems that exist in the process of higher education institutions serving the industrial and economic development of Hainan Province. Based on overcoming the existing problems, we should optimize and improve the specific path of higher education in Hainan to promote the construction of the Hainan Free Trade Port. The key for Hainan higher education to promote the construction of the Hainan Free Trade Port is to effectively meet the various demands in the process of Free Trade Port construction. Based on two dimensions in the construction process of the Hainan Free Trade port: 1. whether the potential demand can be predicted; 2. whether the specific actual demand is conventional, the path of Hainan higher education to promote the construction of Free Trade Port can be illustrated as the following matrix. (Figure 3).

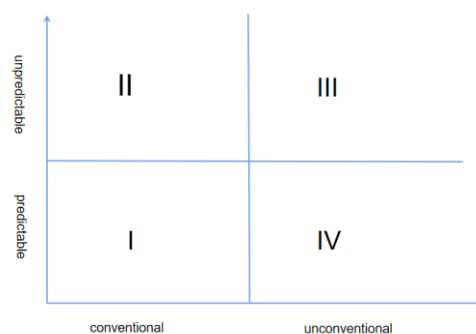


Figure. 1 Framework for analyzing the specific paths of higher education in Hainan Province to promote the construction of the Free Trade Port

Path I: It is the path chosen mainly in the process of the construction of the Free Trade Port in Hainan where the actual demand is the conventional demand and the potential demand is the predictable demand, and it is a path where Hainan higher education is most likely to play its main role with the least difficulty of effective promotion. Philosophy of higher education oriented by political theory believes that higher education will play a more and more important role in the development of social economy and assume more and more important social functions, including talent training, scientific research, social services and cultural heritage. The predictable potential demand and the stable conventional demand in the process of the construction of the Hainan Free Trade Port are the paths that higher education institutions in Hainan Province

need to insist on and precisely match in the process of its development. They are not only the levels of demand that higher education institutions in Hainan Province should pay attention to in the long run, but also the areas that can show the most important value of higher education in the process of the development of the Hainan Free Trade Port. All kinds of higher education institutions in Hainan Province should realize effectively meeting the various needs at different levels, in the construction of the Hainan Free Trade Port, such as the specification of talent training, the establishment of scientific research problems and the main direction of direct social services. Therefore, it is necessary to accelerate the optimization of the layout structure of disciplines and majors. According to the Guiding Opinions of the CPC Central Committee and the State Council on Supporting Hainan in Comprehensively Deepening Reform and Opening Up and the key industries developed in Hainan, we should combine the discipline base and characteristics of Hainan's higher education, focusing on increasing the disciplines in the fields of marine, tropical agriculture (seed industry), aerospace, health, information technology, etc., expanding the proportion of students enrolled in disciplines such as normal education, law, tropical medicine, etc. In addition, disciplines such as modern logistics (shipping), law, foreign languages, ecology and environmental protection should be added properly so as to better contribute to the construction of Hainan's Free Trade Port.

Path II: It is the path chosen mainly in the process of the construction of the Free Trade Port in Hainan where the actual demand is the conventional demand and the potential demand is the unpredictable demand. The unpredictability of potential demand further increases the difficulty of higher education in Hainan Province to effectively meet the specific demands in the process of the construction of the Hainan Free Trade Port. The prediction of potential demand in the process of Free Trade Port construction can provide specific forward-looking and leading solutions to many problems, which can more effectively avoid possible problems in the construction process, and which is the demand type that Hainan higher education should focus on. When the higher education serves the stable conventional demand and unpredictable potential demand in the process of construction of the Hainan Free Trade Port, it should satisfy the more stable conventional demand as comprehensively as possible. Based on meeting the conventional demand, we should make as many plans and responses to the potential demand in the process of construction of Free Trade Port according to data analysis and extensive research. For example, higher education institutions can establish international economics and trade majors according to the stable conventional demand for international trade talents in the process of construction of the Hainan Free Trade Port, and constantly improve the professionalism and effectiveness of its personnel training. At the same time, in order to cope with the unpredictable potential demand during the construction of the Free Trade Port as much as possible, forward-looking courses and training directions can be added to the process of developing the training program for students of international economics and trade, so as to better adapt to the unpredictable potential demand during the construction in the future.

Path III: It is the path chosen mainly in the process of the construction of the Free Trade Port in Hainan where the actual demand is the unconventional demand and the potential demand is the unpredictable demand. The double obstacles of unconventional and unstable actual demand and unpredictable potential demand greatly increase the difficulty of Hainan's

higher education to promote the construction of the Hainan Free Trade Port, making Path III the most difficult path among all the promotion paths. The law of external relations of higher education determines that the education system must be fully adapted to the development of political, economic, cultural [Maoyuan Pan, Weilian Wang, Higher Education, Fuzhou: Fujian Education Press 2013, p. 31.] and other social subsystems, and deal with the relationship between productivity and the level of scientific and technological development, cultural traditions, social systems, as well as population, resources, ecological environment, geography, ethnicity and other factors. The education system and the above subsystems and elements are closely related and influence each other. When the needs of the external subsystems and the external environment of the education system change, if the education system does not adapt well to the changes in the external needs and environment, it will make it difficult for the education system to coexist with other subsystems, resulting in many discordant and even conflicting phenomena. In the face of the changing conventional needs and unpredictable potential needs during the construction of the Hainan Free Trade Port, such conflicts will be further increased. In order to make Hainan's higher education play a better role in the process of constructing the Hainan Free Trade Port, we must choose reliable grips in concrete practice and make forward-looking responses to the changing needs. For example, a professional think tank for the construction of the Hainan Free Trade Port can be set up to find the best path by studying and learning from the successful experiences of developed countries such as Singapore and the Netherlands in the port business and combining them with our specific national conditions, and to make adequate higher education responses.

Pathway IV: It is the path chosen mainly in the process of the construction of the Free Trade Port in Hainan where the actual demand is the unconventional demand and the potential demand is the predictable demand. Compared with the instability of actual demand and unpredictability of potential demand in path III, the potential demand in path IV becomes predictable potential demand, and the predictability of potential demand further reduces the difficulty of higher education to serve the construction of the Free Trade Port. Education has a pioneering, fundamental and overall strategic position in economic and social development [Xibin Jin, Economics of Education, Beijing: People's Education Press, 2009 edition, p. 107.]. Higher education institutions are specialized institutions for human capital accumulation and reserve, playing a very important role in the historical process of scientific and cultural knowledge dissemination, playing an important function of spreading scientific and cultural knowledge created by human beings, popularizing scientific knowledge and expanding the effectiveness of science and technology and production. The dissemination of scientific and cultural knowledge is to better cultivate the professionals needed by society. In the process of construction of the Hainan Free Trade Port, there is a huge talent gap for various types of specialized talents at all levels, and higher education in Hainan Province will assume an indispensable historical responsibility in the cultivation of various talents. In the face of the predictable potential demand and the changing actual demand, the higher education institutions in Hainan Province can realize the effective promotion through the following ways: Firstly, the universities in Hainan Province should provide the construction of the Hainan Free Trade Port with talents equivalent to its demand according to the predictable potential demand. For example, after the closure customs

operation in the Hainan Free Trade Port, the number of international schools in Hainan will be increased to meet the need of enrolling the children of a large number of international talents, and the demand for high-level faculty will be increasing. Therefore, normal education schools in Hainan Province should speed up the pace of internationalization, take advantage of the policy dividend of Hainan Sino-foreign cooperatively-run school (project) jointly approved by the Ministry of education and the provincial educational department, cooperate with foreign high-level universities to build early education, preschool education and primary education majors, cultivating many teacher teams with patriotism, international vision and professional skills to meet the development needs of the Hainan Free Trade Port. Secondly, higher education institutions in Hainan Province should cultivate all kinds of professional talents at different levels such as junior college students, undergraduate and postgraduate. Finally, higher education institutions should constantly improve the pertinence of their major settings and the effectiveness of talent training, provide various opportunities for students to practice in the Free Trade Port according to the predictable potential demand, and constantly improve the training quality of various talents, to better promote the construction of the Free Trade Port.

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On the Opportunities and Challenges of University Education from the Perspective of Internet

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Abstract: "Internet plus" is a new thing generated by combining the products and services of the industry with the future multi screen full network cross platform user scenarios. By combining "Internet plus" with the university education industry, it will bring opportunities as well as corresponding challenges, that is, it will subvert the traditional teaching and learning tasks between teachers and students: students will combine online learning with irregular face-to-face teaching, and the most important task of teachers will become to guide students to learn. We should not only enhance the discrimination ability of educational objects to multiple ideologies and multiple value orientations, but also make them maintain the necessary tension in the multiple values and adhere to the correct value orientation.

Keywords: Opportunities and Challenges; University Education; Internet

1. INTRODUCTION

The rapid development of the Internet not only affects our lives, but also affects education. Academician Li Jingwen said that China is moving towards education in the 4.0 era: the core of the first generation is books, the core of the second generation is textbooks, the third generation is counseling and case study, and the fourth generation is student centered. College ideological and political educators need to change their inherent education methods, accept challenges, and actively rely on the Internet for ideological and political education in order to adapt to the development and progress of the times. Third, there is a positive correlation between educational influence and teachers' personal charm.

Due to the characteristics of equality and freedom of the Internet, each participant is an individual at the same starting point. The handling of online and offline teacher-student relationship has changed. Teachers are more likely to conduct network education as friends and partners of students, which puts forward higher requirements for teachers' personal quality. The network leads to the decline of students' analytical ability. On the Internet, it is extremely convenient to obtain information in all aspects, so information has replaced judgment. When students learn to retrieve and publicize online information, information will be mistaken as knowledge, and students' ability to think and analyze independently will inevitably decline. Over time, the information content is generally regional, while the information dissemination on the Internet is global and super regional.

Pornographic information is legal in some countries, which makes some pornographic information spread unobstructed around the world with the Internet. Due to the differences in cultural traditions, social values and social systems, these yellow information will have some negative effects on the physical and mental health of college students. After graduation, it is difficult to get the corresponding return on investment. However, the emergence of "Internet plus" has made various educational resources available for free. As a result, the "Internet plus" education enables college students

to obtain higher quality educational resources at a lower cost, thus promoting more students to take the initiative to learn, and avoiding many students who cannot afford to go to college because of their poor families to get high-quality education, which challenges the traditional ideological and political education model and information channels in colleges and universities.

Technology convergence is shown below.

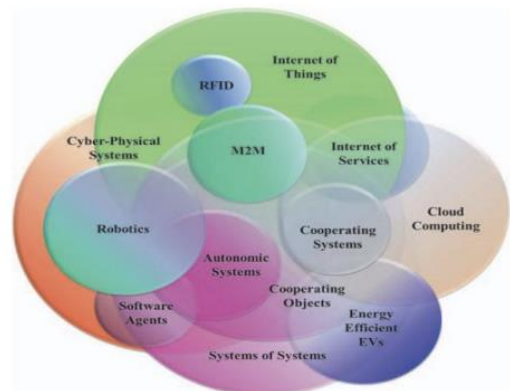


Figure. 1 Technology convergence. Source: (Friess, 2013)

2. THE PROPOSED METHODOLOGY

2.1 Problems Faced by University Education from the Perspective of Internet

Classroom teaching is the main way of traditional ideological and political teaching, which focuses on theoretical knowledge. For students, due to the lack of practicality, the content is empty and lacks attraction. The students trained in this mode are lack of innovation, and the development of the network brings new challenges and opportunities to this educational mode. The great attraction of online games easily makes some students lose their direction. Online games occupy a large part of the time and energy of a large part of students, which makes them lose interest in learning and

receiving education. Carry forward the oriental culture and strengthen the cultural quality education and self-discipline education of college students. In view of the impact of the multi information flow of network culture, moral education workers in colleges and universities should keep a high degree of attention to the network, so as to understand, know and monitor.

The school network center should define the management norms and establish rules and regulations.

(1) It is necessary to rely on technical means to effectively strengthen the control over the Internet and the ability to shield all kinds of bad information.

(2) First, when "Internet plus" enters the existing education system, the original student subsystem can interact with external large systems more quickly and conveniently, thus promoting the growth of its own knowledge and self evolution ability. Secondly, the virtual environment of the Internet can create a virtual world for students, and students can use the Internet to recognize and explore the world from a three-dimensional perspective.

(3) The ideological and political educators in colleges and universities should explore new media to ensure the effective dissemination of ideological and political education.

2.2 The Challenge of "Internet plus" to University Education

Strengthen the expansion offensive of "information territory", take the initiative to use the Internet, which is a carrier with wide coverage, great influence and strong penetration, to accelerate the online communication of building a socialist culture with Chinese characteristics, and timely provide facts for some opinions that do not conform to the facts or affect the overall situation. In the era of exam oriented education, face-to-face communication has become the mainstream of communication between teachers and students, and teachers' words and deeds and other information are revealed, Will convey different potential information to students, and become the motivation or resistance of students' learning.

The teacher's character will also become the criterion for students' future actions, and will exert a subtle influence on the formation of his future world outlook, outlook on life and values. Learn to learn and use the Internet for reference, and improve the overall quality of ideological and political workers. First of all, ideological and political educators should establish the educational concept of "student-centered". Whether in traditional teaching or online teaching, students should be the main body of teaching activities, increase interaction between teachers and students, carry out empathy, teach students in accordance with their aptitude, respect students' personality, and carry out personalized education. Establish a good network environment and create an online campus cultural atmosphere.

Network is an environment in essence. The implementation of quality education under the network environment is bound to be inseparable from the construction of a good network environment, and students should have the convenient conditions to access the Internet; We should strengthen campus network supervision, prevent reactionary, superstitious and yellow rubbish information, and strengthen moral education through network means. To adhere to the correct guidance of public opinion, we need to establish our own network positions. To run a good university website, we must reflect the guiding principle. For some sensitive issues

related to the overall situation, political direction and stability, we should have a positive voice and give political guidance to students who are not deeply involved in the world.

3. CONCLUSION

"Internet plus" has brought a lot of opportunities and challenges to existing university educators. Some people believe that the Internet will replace physical universities and become the mainstream of future education, but others believe that it is only a flash in the pan. However, most people still believe that these two forms will coexist in the future. While retaining the essence of traditional teaching methods, they should also maintain the necessary tension in the pluralistic values, adhere to the correct value orientation, and cultivate them to become a new generation of college students to adapt to the times. Only by grasping the Internet well can our college education take a new step.

4. ACKNOWLEDGEMENT

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Research on the Construction and Practice Path of "12345" Integrated Innovation And Entrepreneurship Education System In Colleges And Universities Under the Background Of "Mass Entrepreneurship and Innovation" Upgrading

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Abstract: The construction of innovation and entrepreneurship education curriculum system is an important part of innovation and entrepreneurship education in colleges and universities under the background of "mass entrepreneurship". Aiming at the main problems existing in the current curriculum system of innovation and entrepreneurship education, this paper analyzes the principles of the construction of the curriculum system of innovation and entrepreneurship education, clarifies the construction logic of "advanced" in the whole process of education, and explores the "five dimensional" innovation and entrepreneurship education system of "goal+ subject + resource + carrier + time and space", which is of great significance for improving students' comprehensive quality and innovation and entrepreneurship ability.

Keywords: "12345"; entrepreneurship education; practice path; mass entrepreneurship; innovation

1. INTRODUCTION

At present, China has entered the decisive stage of building a moderately prosperous society in all respects. In order to realize the fundamental development tasks of industrialization, urbanization, agricultural modernization and informatization, the state has proposed and actively promoted such major development strategies as "mass entrepreneurship and innovation" and "innovation driven". As the core force of innovation and entrepreneurship, science and engineering students are the main objects of deepening the reform of innovation and entrepreneurship education in colleges and universities. Therefore, to improve their innovation awareness, innovation and entrepreneurship education, as the practical basis for innovation and entrepreneurship of contemporary young people, plays an important role in influencing the rapid change and development of social economy.

Under the guidelines and policies of the education reform, the mass entrepreneurship and innovation education has become increasingly perfect, seamlessly connected with the general environment, and adapted to the development of the times. Its essential core is to develop its innovation consciousness and thinking, improve its entrepreneurial ability and quality, and cultivate its innovation and entrepreneurship spirit. The essential attribute of innovation and entrepreneurship education is practicality. The ideal innovation and entrepreneurship curriculum system requires the combination of theory and practice teaching, and in terms of class hours, the theory curriculum is equivalent to the practice curriculum, and even requires the practice curriculum as the main curriculum.

The key to the cultivation of innovation and entrepreneurship talents is to let learners experience the experience and feelings

of entrepreneurship in the process of innovation and entrepreneurship, rather than just mastering the systematic theoretical knowledge of innovation and entrepreneurship. According to the development law of education and teaching, the construction of innovation and entrepreneurship education curriculum system also follows the general law of "from simple to deep" and "from theory to practice", Through the process of "innovative thinking and awareness cultivation - innovative entrepreneurship simulation training - innovative entrepreneurship practice", college talent training has reached a consensus on constantly improving the innovative ability of college students, but there is no consensus on the relevant concepts of upgrading innovative ability training to innovative entrepreneurship ability training. Entrepreneurship requires competence is shown in the figure.

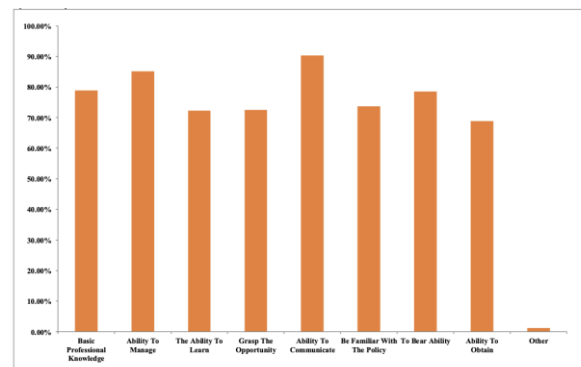


Figure. 1 Entrepreneurship Requires Competence

2. THE PROPOSED METHODOLOGY

2.1 Problems in the Construction of Innovation and Entrepreneurship Education Curriculum System

The existing teachers in colleges and universities are short of personnel specialized in innovation and entrepreneurship education. Most of the teachers in the team are responsible for the teaching of theoretical courses. At the same time, they may also be professional teachers in other disciplines or administrative personnel. Their theoretical knowledge of innovation and entrepreneurship is far stronger than their practical ability, but they have no successful experience of innovation and entrepreneurship and lack of practical experience of innovation and entrepreneurship. In the stage of college education, We should not just attach importance to the teaching of theoretical knowledge. In order to enable contemporary college students to integrate into the society faster and grow into pillars, we should attach great importance to innovation and entrepreneurship education practice courses at the school stage.

Through this course, we can improve college students' enterprise knowledge, broaden their horizons, and cultivate their innovation and entrepreneurship skills. The innovation and entrepreneurship education carried out by the Open University is based on the previous radio and television universities' training of students' independent learning ability and professional ability, and focuses more on cultivating students' innovation and entrepreneurship quality and ability, making them have innovation awareness, strengthening students' entrepreneurship awareness and cultivating entrepreneurship ability, and providing a steady stream of high-quality innovative talents for the development of the national economy in the new era. Thirdly, share the entrepreneurial cases and experiences of successful people.

2.2 Construction of "12345" Innovation and Entrepreneurship Education System in Open University

Ensuring adequate capital investment and strengthening necessary policy support are the basic core of the rapid development of innovation and entrepreneurship education in colleges and universities. Innovation and entrepreneurship education requires not only theory teaching, but also hands-on practice. It also needs to be equipped with excellent teachers, high-quality exchange, learning and training opportunities, and various practice platforms that vary from person to person. Innovation and entrepreneurship education practice courses mainly include entrepreneurship practice and simulated entrepreneurship experiment. Among them, there are two ways to implement entrepreneurship practice. One is to use the practice platform built on campus, such as the practice platform established by the university and the mass innovation space, to provide college students with opportunities for practical experience and improve their comprehensive practical ability.

From this point of view, compared with college students, they have more urgent learning intention and determination and drive to put into practice for the learning of innovation and entrepreneurship courses. Therefore, the target audience of innovation and entrepreneurship education in the Open University is also divided into three parts.

The basic reason for the low entrepreneurial willingness of domestic college students is the general lack of innovation and entrepreneurship ability.

Therefore, colleges and universities should start from the talent training program, integrate various educational resources, create a scientific, reasonable and practical innovation and entrepreneurship education curriculum system, and take the cultivation of college students' innovation and entrepreneurship ability as one of the important objectives of talent training. First of all, we should establish a scientific evaluation method to improve teachers' professional level and teaching ability, and promote their upward development; Secondly, we need to further improve the standards for evaluation and employment of professional and technical posts and performance assessment, highlight the status of innovation and entrepreneurship teachers, and then drive the enthusiasm and initiative of teachers to participate in the innovation and entrepreneurship education.

3. CONCLUSION

Aiming at science and engineering college students under the background of "new engineering" construction, this paper analyzes the necessity and challenges of innovation and entrepreneurship education in depth, based on the research and collation of existing literature on the evaluation of innovation and entrepreneurship ability of college students and the research on the promotion path. Emphasize the principles of integration with disciplines and specialties, highlight practical links, etc., start from the characteristics of students, closely combine the characteristics of disciplines and specialties, build a systematic and reasonable innovation and entrepreneurship education curriculum system, and enhance students' innovation awareness and innovation ability.

4. ACKNOWLEDGEMENT

Scientific research project of Hunan Provincial Department of education in 2019 "Research on the construction and practice path of "12345" integrated innovation and entrepreneurship education system in Colleges and Universities under the background of "mass entrepreneurship and innovation" upgrading "(19C1302).

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Discussion on the Construction and Innovation of the Reader Service System of University Library Under the Network Environment

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Abstract: Based on the development of university library service in China, this paper analyzes the significance of university library service innovation and transformation under the "Internet plus" environment, puts forward the problems existing in the current university library service, first expounds the necessity of university library adapting to the new technological environment to build an innovative service system under the network environment, and then from the concept, management, resources The construction of innovative service system is discussed from five aspects of technology and service. This paper focuses on the analysis of the construction of the intelligent service mode of university libraries from the perspective of innovation and puts forward reasonable suggestions in order to improve the service ability of intelligent libraries and provide reference for people who pay attention to such topics.

Keywords: Construction and innovation ; reader service system; university library; network environment

1. INTRODUCTION

University libraries should rely on the concept of "Internet plus" and the strong support of information technology to fully guarantee the development of modern management and service optimization. Through technical support for the upgrading of library software and hardware, they should constantly change and supplement service content, expand service space, improve the service methods of university libraries, expand service scope, and improve service quality. Innovative education is a new educational concept, which is based on the cultivation of people's innovative spirit and is proposed to meet the era of knowledge economy. It can provide an important guarantee for the implementation of quality education.

From a macro perspective, innovative education is the innovation of education. According to the development characteristics and trends of the new era, the education function has been re positioned, mainly exploring, and solving the problems of innovation ability and consciousness. In addition, the wide application of cloud computing and mobile network also provides comprehensive help for the sustainable development of university libraries, can provide research directions and hot changes for disciplines, and provide academic sharing mirrors for researchers, it provides personalized services for readers and decision support for resource procurement.

(1) Therefore, the era of big data in university libraries has come. Fundamentally speaking, it is a service provider. How to provide a higher quality and high-level service to the majority of readers with the Internet as the carrier requires a clear service concept and awareness.

(2) The service tenet should be "reader oriented". How to attract readers into the library and how to provide diversified and characteristic services are all issues that need to be considered. The development of high and new technology, the

change of network environment, the rise of digital library, the formation of information market and the rise of information consultation have caused dramatic changes in the external and internal environment of library management.

Varying Characteristics of User's Demands on University Libraries under Ubiquitous Knowledge Environment is shown in the figure.

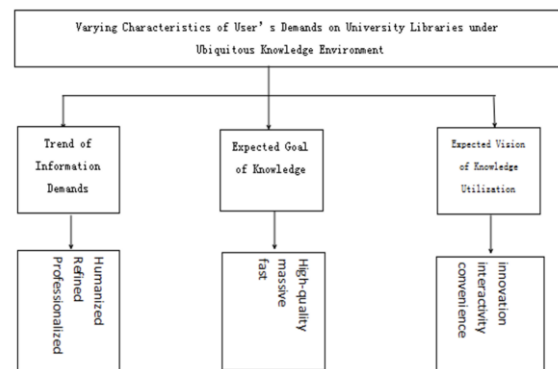


Figure. 1 Varying Characteristics of User's Demands on University Libraries under Ubiquitous Knowledge Environment

2. THE PROPOSED METHODOLOGY

2.1 The Significance of Service Innovation and Transformation of University Libraries under the "Internet plus" Environment

Under the influence of the digitalization of cultural communication carriers and the diversification of communication methods, various media such as television, radio, and the Internet are nibbling at the hereditary territory of libraries. More and more people have realized that the 21st century is the century of innovation, which will play an increasingly important role in social life, production,

operation, management, and other activities. The competition in today's society is becoming more and more fierce, people's life rhythm is relatively fast, and they have a certain sense of time. With the support of Internet technology, the service time can be shortened. In the "Internet plus" environment, business handling efficiency is getting higher and higher.

(1) University library staff can simplify the relevant work procedures, such as borrowing and returning books, handling of borrowing cards, etc. This can reduce the workload of staff and improve work efficiency.

(2) Actively learn new technologies and ideas, enhance their own innovation literacy, inject vitality and vitality into the construction of university intelligent libraries, provide readers with high-quality and high-quality intelligent services, and then play a guiding role for readers, so that they can consciously tap their own innovation potential, implement innovative education, and promote the sustainable development of university intelligent libraries. Library knowledge service is a complex and long-term systematic project.

(3) In today's knowledge economy era, when all kinds of network information are coming, and explicit and implicit information are intertwined, how can we mine and guide valuable information from the vast network?

It is often difficult to achieve ideal results only by relying on traditional qualitative or quantitative analysis and processing methods. It is necessary to use intelligent big data systems to correlate and classify this, so as to improve the pertinence and convenience of readers' search, Solve users' practical problems.

2.2 Reflections on the Innovation of University Library's Knowledge Service System from the Perspective of Big Data

University libraries can rely on WeChat official account to push various developments of the library, such as the latest activity information and latest books of the library. In the era of network information, the primary task of university libraries is to strengthen the construction of information infrastructure, the key and core of which is to promote the in-depth development and utilization of information resources and provide users with satisfactory services.

Therefore, the librarians of university libraries should be compound talents with high professional ethics, technical quality, and cultural quality. In order to meet the needs, libraries should strengthen the construction of professional ethics. Most college students will lend books for reading. In order to ensure that the reading needs of readers are met, university libraries should improve the speed of information circulation, and relevant staff can speed up the processing and putting on shelves of books. University libraries can cooperate with bookstores. Students can borrow books they are interested in directly from bookstores, which can fully reflect the basic role of Internet information technology and improve the speed of information circulation. For research smart librarians, in order to enhance their comprehensive quality, we can provide them with a platform for academic research, so that they can obtain new knowledge from it.

3. CONCLUSION

In the "Internet plus" environment, the speed of information dissemination has been rapidly improved, which has

strengthened the interaction between information and promoted the generation of network culture. With the development and progress of Internet information technology, people's traditional learning methods and information retrieval methods have been changed, which also has a negative impact on the development of university libraries. The development of anything has two sides, and constantly improve the quality and level of library knowledge services. It is believed that in the near future, libraries will step into the era of big data one after another. Although libraries have the advantages of resources, their technical disadvantages will be a major challenge to carry out big data services. How should libraries improve their strengths and offset their weaknesses to avoid marginalization of their status will be a major issue that every librarian should ponder.

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Teaching Strategy of Higher Mathematics Based on the Training of Mathematical Modeling Ability

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Abstract: Advanced mathematics is an important basic course of science and engineering. It mainly introduces the basic theories and methods of mathematics and trains students' thinking. Abstraction is its most basic and significant feature. Mathematical modeling is an important means to solve practical problems with mathematical tools. This paper attempts to take "mathematical modeling" as a breakthrough, so it is particularly important to improve the teaching strategy of advanced mathematics based on mathematical modeling methods in higher mathematics teaching. Based on this, this paper simply discusses the teaching strategy of advanced mathematics under the background of mathematical modeling method.

Keywords: Teaching strategy; higher mathematics; mathematical modeling ability

1. INTRODUCTION

Advanced mathematics is a subject offered in the university classroom. It is not difficult to see from the name that higher mathematics knowledge is highly targeted and covers a wide range of contents. Compared with previous mathematical knowledge, higher mathematics requires higher personal quality of students. This is of great help to the improvement of students' ability. Therefore, higher mathematics is set up in university courses to improve students' personal abilities.

Mathematical modeling is to transform the actual problem into a mathematical problem through analysis and simplification, and then use appropriate mathematical methods to solve it. The key step is to transform the problem into a mathematical model. In short, mathematical model is to use mathematical methods and means to make the most reasonable design and scheme for a practical problem. Now, combined with my own teaching experience, I would like to talk about the role of mathematical modeling in higher mathematics teaching. In the teaching of higher mathematics with the idea of mathematical modeling, the following processes are mainly used: first, express the mathematical problem, then solve it with appropriate methods, explain it with relevant theoretical knowledge, and finally verify the problem. In the teaching process of higher mathematics, it is important to apply mathematical modeling ideas in the following aspects:

(1) The mathematical knowledge in the textbook is restored by using the objects in real life, so that students can establish the idea that mathematical knowledge comes from real life.

(2) The idea of mathematical modeling requires students to simplify the information, data, or phenomena of specific objects in real life, translate and summarize abstract mathematical objects, and express the quantitative relationship in the solved mathematical problems in the form of mathematical relations, mathematical graphics or mathematical tables by using corresponding mathematical

tools and mathematical languages. This way is conducive to training Exercise students' mathematical expression ability.

Modeling cycle (Blum&Leiss, 2007) is shown in Figure1.

2. THE PROPOSED METHODOLOGY

2.1 The Practice and Further Thinking of Modern Flipped Classroom Teaching Mode

At present, some students are afraid of learning mathematics and have a fear mentality; Some students think that mathematics represents a degree and an exam, which is of little practical use. Teachers of higher mathematics must correct students' wrong ideas, start from the source of mathematics and the solution of practical problems, guide students to learn and apply mathematical modeling methods, because students can experience the scientific category of mathematics in the process of modeling, thus forming an effective method to solve problems

First of all, we should guide students to comprehensively learn mathematical background and knowledge content, deepen their ability to understand mathematical problems, broaden their mathematical knowledge, and lay a foundation for improving their mathematical level. Secondly, in the learning of mathematical modeling, we should pay attention to the cultivation of students' mathematical application ability and consciousness. Learn mathematical models, participate in the process of mathematical modeling, enhance the significance of students' mathematical application, and comprehensively improve students' ability to apply mathematical knowledge to solve practical problems. For students, the main purpose of learning mathematical knowledge is to train their way of thinking. Mathematical knowledge belongs to science knowledge.

Teachers should cultivate students' thinking ability so that students can look for solutions carefully and patiently when facing mathematical problems.

This kind of exercise can help students keep a normal attitude when facing various problems in life. Many students do not know how to use mathematics after learning it for a period of time. In the eyes of many students, mathematical knowledge is just doing problems. In fact, the college mathematics curriculum contains a large number of examples of mathematical modeling, which are derived from our actual life and are easy for students to understand and accept.

Therefore, as a teacher playing a leading role in teaching activities, when explaining higher mathematics, teachers should build relevant mathematical models for the chapters that can introduce mathematical models, put forward corresponding problems, and analyze and deal with them. On this basis, the assumption is put forward to improve the mathematical model.

2.2 The University Students' Career Education

Teachers integrate the modeling consciousness into the teaching of higher mathematics, so that students can imperceptibly feel the effect of the application of modeling ideas in higher mathematics teaching. This is conducive to improving students' ability to use mathematical knowledge and learning interest. In higher mathematics teaching, in order to consolidate and deepen classroom teaching knowledge and improve students' ability to master and apply mathematical modeling, we must attach importance to the practical teaching link, which plays a very important role in classroom teaching.

(1) After the teaching of mathematical knowledge theorem is completed, the teacher can appropriately arrange some training questions to exercise the students' ability to apply knowledge. They will not be loved and respected by students. Therefore, the classroom is always composed of students and teachers.

(2) Teachers should not rely on their own experience and ignore students' ideas to blindly carry out classroom teaching. The actual situation shows that this method is not feasible.

Only by paying attention to the cultivation of students' learning ability can teachers truly benefit students for life. This requires teachers not to suppress students' inspiration and ideas in the teaching process. Another example is the application of ordinary differential equations in life. An interesting little problem -- the hungry wolf chasing the rabbit: there is a rabbit, a wolf, and the rabbit is 100 meters west of the wolf. Suppose the rabbit and the wolf find each other and run together at the same time, the rabbit runs to the cave 60 meters north, and the wolf chases the rabbit along the rabbit's route, and assumes that the speed of the wolf and the rabbit is uniform. The application of mathematical modeling in the teaching of differential equations can effectively solve practical problems. The mathematical model constructed by differential equations does not have universal rules.

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' in-depth 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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Research on the Evaluation Model of Students' Ideological Politics and Daily Performance Based on Big Data

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Abstract: In the era of big data, the ideological and political education in military academies should also keep pace with the times and change the way of thinking. This paper applies big data technology to the ideological and political education of students, studies the evaluation model of students' ideological and political and daily performance based on big data, and gives full play to the advantages of big data, in order to continuously improve the pertinence and effectiveness of students' ideological and political education.

Keywords: Evaluation model; students' ideological politics; daily performance; big data

1. INTRODUCTION

In recent years, with the rapid development of the Internet, more and more people's behaviors occur in the network, which directly leads to the explosive growth of human behavior related data in the Internet. Human beings have unknowingly entered a "big data" era. In the big data white paper "Big Data for Development: Challenges Opportunities" released by the United Nations in 2012, it was pointed out that the era of big data has come, and the emergence of big data will have a profound impact on all areas of society.

To this end, countries around the world have invested a lot of human and material resources in this field to support the research and application of "big data". From the perspective of educational resource allocation, this paper analyzes how to reasonably allocate the ideological and political education resources in colleges and universities in the age of big data. Chapter 6 discusses how to improve the ideological and political education in the era of big data from the four perspectives of educational thinking, educational platform, educational data and educational information. In order to strengthen the grasp of the law of students' growth, strengthen the process supervision of education and teaching quality, promote the standardization of students' management and evaluation, improve the scientific nature of education and teaching decisions, and promote the reform and development of the college's talent training mode and education management mode, the college has started to build a student growth management system based on big data.

Manage student growth data under the big data platform with the progress of big data technology, advanced scholars in the industry began to try to use big data technology and information technology to build an evaluation model of college students' ideological and political and daily performance. After more than ten years of improvement and research, the model has been preliminarily mature and put into use, which has shown certain educational value in practice. In the era of big data, ideological and political education in colleges and universities should also keep pace with the times,

change the way of thinking, and cope with the opportunities and challenges brought by the era of big data.

2. THE PROPOSED METHODOLOGY

2.1 Current Students' Ideological and Political Education Level

Apply big data technology to ideological and political education, effectively and fully exert the power of big data, a powerful weapon, in order to constantly improve the pertinence and effectiveness of ideological and political education. The third is the early performance, that is, the ideological and political performance and daily performance of college students in previous schools.

Fourth, personalized development, including college student association activities, various competitions, volunteer activities, etc.; The fifth is online data. In the past, there was no online data in the relevant models due to the substandard technology. Now, with the help of big data technology, colleges and universities can mine the massive data left by college students, such as online duration, frequency, and important online speech published, and take this as the evaluation standard.

Collect students' basic information data, students' ideological and political and daily performance data, students' online data, students' library borrowing data and students' personalized development data in the student information system, and use the ideological and political and daily performance compliance algorithm to evaluate each student at any time to determine whether the students' ideological and political and daily performance are up to standard, and display red, yellow and green signal lights respectively.

A certain amount of guidance. First of all, using big data technology, the operation of college students' ideological and political and daily performance evaluation model will be more efficient. With the increase of the number of college students and the content of education, there are more and more data related to college students' ideological politics and daily

performance. Colleges and universities are facing greater challenges in the management of relevant data.

2.2 Modeling of Evaluation Model for Students' Ideological and Political Education

The core significance of "big data" applied to students' ideological and political work and daily management lies in its "predictability" and "prevention", which can bring students and ideological and political educators the effect of taking precautions. Through the analysis of the data, the students can find their own progress and defects in time, and the ideological and political workers can find the typical, common problems in the students' ideological and political and daily performance, and then establish a response mechanism according to the research results.

(1) By using big data technology, the collection of college students' ideological and political data and daily performance will be faster and faster. The staff only need to output the key information of the college student and can use data screening and other technologies to quickly download the data related to the college student's ideological and political and daily performance.

(2) At the same time, through cloud computing, cloud storage and other big data processing equipment, colleges and universities can collect more data related to college students' ideological and political and daily performance, facilitating the development of subsequent data applications.

(3) For the trainees, when they light the yellow warning light, they should find out their own defects and analyze the reasons for their low scores. In particular, the secondary indicators of score reduction should be carefully investigated and thoroughly reviewed. Students can also compare with students with high scores to find out the difference between themselves and excellent students and learn from others. Secondly, the evaluation model of college students' ideological politics and daily performance based on big data can make the evaluation more accurate.

3. CONCLUSION

Through the research of this topic, under the big data platform, we manage, horizontally analyze and vertically mine the growth data of students, refine the data reflecting the development status of students, analyze the problems in the training and management of students, provide better decision-making and scientific basis for applications at all levels, and guide the scientific development of the training mode and management mode of students. It promotes the standardization of student management and evaluation.

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Research on the Evaluation Model of Students' Ideological Politics and Daily Performance Based on Big Data

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Abstract: In the era of big data, the ideological and political education in military academies should also keep pace with the times and change the way of thinking. This paper applies big data technology to the ideological and political education of students, studies the evaluation model of students' ideological and political and daily performance based on big data, and gives full play to the advantages of big data, in order to continuously improve the pertinence and effectiveness of students' ideological and political education.

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1. INTRODUCTION

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The Current Significance of Chinese Excellent Traditional Cultural Elements

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Abstract: The excellent traditional culture of the Chinese nation is an important cultural symbol to express our self attributes in the context of world culture and is the deepest foundation for cultural self-confidence. Therefore, the significance of carrying forward the excellent national traditional culture lies in: providing rich nourishment for the confidence of socialist culture with Chinese characteristics, providing strong support for the confidence of socialist culture with Chinese characteristics, and providing support for the innovative development of the excellent national traditional culture. The promotion of Chinese traditional excellent culture and the display of the value of the times require the innovation and dissemination of modern moral education. This article mainly explains the effectiveness of the integration of Chinese excellent traditional cultural elements and modern moral education from the mutual influence and interaction between the two.

Keywords: Current significance; Traditional cultural elements

1. INTRODUCTION

The excellent traditional Chinese culture is the essence of culture that has been preserved and developed in the five thousand years of history and cultural choice. It has long been melted into the blood of the Chinese nation and has become our cultural gene and distinctive symbol. Today's world culture is surging, with different values colliding and influencing each other. The Chinese people have always attached importance to the life of the spiritual world and made unremitting efforts for spiritual prosperity. Everyone is not willing to be a walking corpse between heaven and earth. They want to have their own unique personality, independent personality, and strive to reflect the value of their own existence.

This was reflected in ancient China, for example, the Chinese traditional culture advocated to sacrifice life for justice. The core idea of Confucianism is "benevolence" and advocates "people-oriented", which in itself means that human life is the most precious, and wealth should not be taken too seriously. The traditional culture advocates the harmonious coexistence between man and nature. People and nature, people and people should coexist peacefully, protect nature, and create a better society.

These epoch-making ideas are embodied in modern moral education concepts. Second, from the perspective of integrating the "ideological and political education resources" of traditional culture into the "ideological and political education work", the Confucian moral education theory and traditional philosophy represented by Confucius and Mencius have been fully explored, and the traditional culture has been introduced into the ideological and political classroom to enrich educational resources, At the same time, it is also proposed that "traditional culture can enrich ideological and political education resources, and its theoretical framework, social values and practical experience can provide beneficial results for ideological and political education in colleges and universities at the current stage". The excellent traditional

culture of the Chinese nation can contribute to the formation of national cohesion, centripetal force, and combat effectiveness, to the formation of national common ideals, beliefs and value pursuit, and to the consolidation of national unity, it plays an important and irreplaceable role in promoting the national spirit of self-improvement. Characteristics of Chinese traditional culture is shown below.

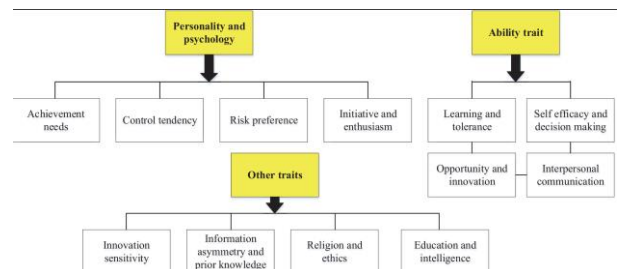


Figure. 1 Characteristics of Chinese traditional culture.

2. THE PROPOSED METHODOLOGY

2.1 Application of Chinese Excellent Traditional Culture in Contemporary Design

As the only uninterrupted civilization in the history of human civilization, Chinese civilization has its own strong development ability. All human behaviors are dominated by their consciousness, which is mainly the result of external stimulation on the human brain. Culture is the life and soul of a nation. What kind of cultural connotation, cultural essence and cultural essence act on human brain will produce different consciousness, and this consciousness will become the pointer of human behavior.

(1) There are many methods about moral education in China's excellent traditional culture, one of which is to convince talents to be wise by virtue. If a country or nation wants to survive, it must have good morality and good quality, and let

excellent customs and habits to maintain social harmony; Method 2: Leaders should set an example and strictly demand themselves, so that the whole society can conform to the moral standards. Implicit ideological and political education refers to the use of implicit ideological and political education resources, using a more hidden and implicit form of education through culture, system, management, hidden curriculum, etc., so that the educated are not easy to have rebellious mentality, confrontation, and other emotions, and are unconsciously encouraged.

(2) It is a way to carry out ideological and political education by touching and moving the participation consciousness of the education object. The husband should take more family responsibilities and support his wife's career development in a positive attitude.

Women themselves should also communicate well with family members, balance the relationship between work and family, and strive for family support with a positive attitude. The excellent traditional Chinese culture is the essence of the Chinese nation that has been deposited and passed down from generation to generation, the crystallization of the wisdom of the Chinese nation's civilization for thousands of years, and the inexhaustible think tank. Therefore, in order to realize the Chinese Dream, we should not only widely learn from all the developed and excellent scientific and technological achievements, experience and wisdom at home and abroad, but also deeply tap the values, moral concepts and great wisdom of governance in our own national long history and culture, and at the same time, creatively develop and utilize the traditional culture in combination with the characteristics, requirements and processes of the current era.

2.2 Excellent traditional Chinese culture is the foundation for the sustainable development of the Chinese nation

Moral education culture is a very broad culture, which includes not only self-education, but also the education of others. Including people at different levels and in different fields, let the traditional culture reach the hearts of every civilian, let the moral education culture become the mainstream of the times, and give play to the value of the times. It has a certain degree of hierarchy and conservatism, so with the development of the times, the part that does not meet the requirements of social development will inevitably be criticized. In the modern society with the rapid development of information technology, with the gradual wide application of multimedia technology, various social trends of thought have a profound impact on people's values, modes of thinking and ways of behavior. In order to resist the erroneous trends of thought such as neo liberalism and historical nihilism, educators are bound to innovate and upgrade the implicit ideological and political education to make its content and form conform to the actual needs.

The elimination of gender bias should start with women themselves. Women in the workplace should know how to shape themselves without gender differences, abandon all kinds of backward ideas of traditional feudal culture, and do not use gender bias to predict themselves and others. The destiny of a nation state directly affects our feelings, and the feeling of loving the motherland comes from the recognition of national culture. If a person does not have a sense of identity with the history and culture of his own nation, he will never love his motherland, and such a person will betray the interests of the motherland and the people in a special period for his own self-interest. This practice was spurned by others

and was pointed out by thousands of people. The ways of spreading moral education culture are also various. In the constant exploration and exploration, the education of moral education culture has already had a mature teaching method. For example, use reason to guide the method and teach the method through words and deeds, and make independent choices according to needs.

3. CONCLUSION

China's excellent traditional culture has changed and developed with the progress of the times, adapting to the trend of the development of the times, so that we have a strong sense of cultural identity and national pride. Moral education has a strong attribute of culture and is the core of culture. The integration of the two will better display the era value of culture. The public environment of the community should be revived by absorbing elements that highlight cultural characteristics, so as to integrate traditional cultural elements into implicit ideological and political education in an all-round way, promote the construction of an ideological and political education system with Chinese characteristics, improve the effectiveness of ideological and political education, so that the educated can enhance national self-confidence in the social environment and consciously promote the excellent traditional Chinese culture.

4. ACKNOWLEDGEMENT

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Study on the Sustainable Ecotourism Development Model of Jinxiu Yao Nationality based on Network Service Platform

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Abstract: The overall image orientation of a tourist destination should analyze its context, geography, market sense and competitors. Based on the analysis of the context, geography, market sense and major competitors of Guangxi Jinxiu Yao Autonomous County, this paper proposes that the overall tourism image orientation of Guangxi Jinxiu Yao Autonomous County is "ecological Jinxiu, the world Yao capital." Starting from the connotation of ecotourism, this paper analyzes the impact of "Internet+" on the development of ecotourism and put forward countermeasures and suggestions from four aspects of coordinating the relationship between ecological protection and ecotourism, accelerating the construction of Internet infrastructure, establishing, and improving information integration platform, and providing personalized services, in order to promote the sustainable development of ecotourism.

Keywords: Sustainable ecotourism; Jinxiu Yao nationality; network service platform

1. INTRODUCTION

Guangxi Zhuang Autonomous Region is located in South China. It has 11 ethnic minorities, including Zhuang, Yao, Miao and so on, and a total of 12 ethnic autonomous counties. It is mainly distributed in mountainous areas, surrounded by mountains, with beautiful scenery, a wide variety of wild animal and plant resources, and an excellent ecological environment. All autonomous counties rely on local minority characteristics to develop tourism industry, mainly government led

At present, under the guidance of ecological principles, based on the construction of ecological agriculture, a new type of tourism that provides tourists with extensive participation and experience activities such as agricultural sightseeing, agronomy and science and technology demonstration, leisure vacation, and agricultural product picking and processing -- ecological agricultural tourism has been developing in full swing everywhere, and has become an effective way to solve the "three rural" problems in China. As an important part of the sustainable development of rural areas, eco agricultural tourism, the influx of a large number of tourists, while injecting vitality into rural economic development, aims to determine the location of tourism destinations in the mental coordinates of tourists.

The overall image positioning of tourism destination is a process with comprehensiveness and creativity. Generally speaking, the overall image positioning of tourism destination should consider the context, context, market sense and competitors of the tourism destination. On this basis, the relevant positioning methods should be used to express the terrain image of tourism destination with a penetrating, creative and infectious concept. The connotation of ecotourism mainly includes the following aspects: First, tourism spots should be natural ecology or human ecology with symbiotic relationship. China has a long history and rich natural landscape resources. Ecotourists' tourist spots are not only natural ecosystems, but also human landscapes; Second, pay attention to fulfilling tourism responsibilities. Tourism

enterprises should not bring negative impacts on the environment when planning and developing ecotourism spots. While enjoying and appreciating the natural and cultural scenery, ecotourists should actively protect the local environment and maintain local life without damaging the environment. Ecological footprint of tourism transportation.

2. THE PROPOSED METHODOLOGY

2.1 Basic Theory and Model of Tourism Ecological Footprint

The measurement of tourism transportation ecological footprint includes the energy consumption and occupation of tourism transportation facilities required by tourists from their permanent residence to the tourist destination, as well as travel in each tourist destination.

The construction site occupied by tourist transportation facilities includes airport, railway station, bus station, ship wharf, railway, highway, parking lot, cableway station entrance, bridge, beam, tunnel, etc. required by tourists. Most ethnic minority settlements are located in remote areas. Although they are rich in material resources, inconvenient transportation has become the main factor hindering local economic development. The economic production of ethnic minority settlements is dominated by the primary industry. Restricted by the poor geographical location, ethnic minority settlements do not have advantages in transportation convenience, talent introduction and economic radiation. It is difficult to introduce traditional industries and high-tech industries to promote local economic growth:

(1) In terms of national costumes, there are both commonalities and individuality. The commonalities are embodied in the chignon with bare feet, the large collar with patchwork clothes, the silver hairpin with head ornaments, and the big rings running through the ears. No matter the clothes, pants, shoes, foot bindings, and leggings on the feet, they all have exquisite and delicate patterns and colorful colors.

(2) The individuality is mainly embodied in the clothes of Chashan Yao, Hualan Yao, and Ao Yao. The bottom of the cloth is black. The cloth of the clothes of Pan Yao and Shanzi Yao is black, Purple is the background color, but both are home-made homespun cloth. From cotton planting, flower binding, spinning, weaving to indigo dyeing, embroidery, and sewing, they all come from women's hands.

2.2 The overall image orientation of Guangxi Jinxiu Yao nationality

First of all, based on the concept of sustainable development, we should do a good job in ecotourism planning. In combination with ecological principles, we should consider the environmental carrying capacity of the area where the ecotourism site is located while formulating and implementing the planning, actively cooperate with the completion of pollutant emission reduction, and avoid the damage of human activities to the local environment.



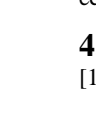
Branches	Style	Wear way	Pattern and Color	Modelling characteristics
Pan yao	Women's clothing Straight collar and lapel style	Flat pointed hat, lengths on the long sleeves, chest hanging gold tassel, slanting apron, wearing embroidered pants	Named after the flower, eleven large flowers: cockscomb flower, big tree flower, etc. Main color: black, red, yellow, match color: green, white, purple and green	
Village to yao	Women's clothing Spotted coat with large collar and lapel	Silver plate horn cap, Big collar, iron-on, middle gown, left cover and right front, belt, middle leg cover together	Patterns: geometric patterns, insects and birds, landscapes, etc. Main color: black, blue, light red, rose red, match color: blue, white, green, yellow and pink	
Shanzi yao	Women's clothing Stand collar with right front broadfront style	Bamboo hoops, hemmed head scarf, homespun jacket, white collar, belt, shoulder girth, apron, under the pants, leggings	Pattern: sunflower, zig-zag, double lock, fringe plate, etc. Main color: black, red, blue, white, match color: green, yellow and rose	

Figure. 1 The original form of clothing of all branches of Jinxiu Yao nationality

Tourism catering ecological footprint measurement includes providing tourists with packaged meals, tasting local flavor meals, banquets, buffets the completed area of catering facilities for such service projects as catering and beverage, the biological production area of tourists' food consumption (including arable land, forest land, grassland and water area), the fossil energy area of energy consumption for catering services, and the completed area of catering facilities only count the area of various social restaurants (not providing accommodation). National culture and its derived national customary laws are the guarantee for the development of ecotourism in autonomous counties.

For a long time, ethnic minorities have been "dependent on the mountain". The quality of the natural environment directly affects the survival of the people. Therefore, most ethnic minority cultures express their worship of nature. On the basis of ideas, ethnic minority areas have determined the order of protecting the natural environment and the punishment of destroying the ecology through customary law. For example, the village rules and customs formulated by some villages in Jinxiu Yao Autonomous County stipulate that it is prohibited to damage trees. The main geomorphic types include middle mountains, low mountains, hills, plateaus and special landforms.

The highest peak, Mount Shengtang, is 1979 meters above sea level, the lowest valley is 140 meters above sea level, and the relative height difference is 1839 meters. It is a typical mountain area. The mountains are numerous, high and dangerous, which blocks the economic and cultural exchanges between Dayao Mountain Yao residents and the outside world, making the Jinxiu Yao culture in Guangxi well inherited and protected.

The special geographical location, diverse geomorphic types and ancient geological conditions have bred the dense forest vegetation, sufficient rain and comfortable climate of Jinxiu Dayao Mountain. Integrate relevant information platforms, fully open the information exchange bridge of various ecotourism spots and improve multi-level tourism information centers and service terminals.

3. CONCLUSION

The meaning of "World Yao Capital": The image of the world Yao Capital is positioned to look at the development of tourism from a higher perspective, that is, to jump out of Jinxiu to develop Jinxiu. From the perspective of development scope, the long-term goal of Jinxiu Yao is "the world". At present, the Yao people are distributed in many countries in the world. Due to the independence of national culture, the common characteristics of the Yao people in all corners of the world are difficult to change. Not only are they product innovation, creative marketing, and service improvement, but also the supervision and data information platform provided by the Internet is conducive to popularizing environmental ethics education, regulating and restricting the behavior of ecotourism, Promote the sustainable development of ecotourism.

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Thinking and Practice of Integrating Information Technology into College Physical Education Teaching

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Abstract: With the continuous development of information technology, the application scope of information technology is expanding. The integration of information technology and physical education teaching can effectively stimulate students' enthusiasm for training, mobilize their enthusiasm for learning, cultivate their sense of cooperation, and establish the awareness of lifelong sports. For this reason, physical education teachers should deeply explore the way of integration of information technology and physical education teaching. From the perspective of integration, this paper constructs a learner centered environment based on modern information technology. Taking people's active learning activities as the main line, it explores the way of deep integration of modern information technology and physical education teaching and puts forward countermeasures for effective integration of information technology and college physical education curriculum.

Keywords: Thinking and practice; integrating information technology; Physical education teaching

1. INTRODUCTION

Physical education plays an important role in school education. It can not only help students to keep fit, but also cultivate students' interests and hobbies. It has far-reaching significance for students' all-round development. Adolescent stage is the stage in which students systematically and professionally learn scientific and cultural knowledge. For students at this age, it can be seen that the integration of information technology in college physical education must be based on the change of teaching thinking of college education administrators, and enhance the importance of information technology application, so as to lay a solid foundation for the integration of information technology in physical education.

In practical teaching, teachers should be guided to change their teaching thinking through the following aspects: First, physical education teachers in colleges and universities should pay attention to changing their educational thinking, innovating their teaching ideas, updating their teaching ideas, effectively integrating information technology into physical education teaching, and making teaching plans and teaching objectives more in line with the actual situation of college students with the help of information technology, Realize the overall improvement of teaching effect and quality. The life and practice of sports are unified, and the two cannot be neglected or separated. There are two phenomena in current physical education teaching:

One is to pay too much attention to the teaching of skills and neglect the cultivation of humanistic spirit.

(1) First, it deviates from the core value of educating people, neglects the real experience of students, and in fact, it makes the sports culture education empty. Under these two circumstances, it will be difficult to cultivate the core quality of sports discipline. It is of great significance to integrate information technology into college sports teaching.

(2) Based on the change of PE teachers' teaching concept, they should pay more attention to modern education means such as information technology, and constantly strengthen their ability to apply information technology in teaching

practice, so as to lay a foundation for the comprehensive penetration of information technology in teaching. The transformation of thinking is elaborated from the following two aspects. The integration of information technology and physical education teaching is a new teaching method for teachers to organically combine information technology, information methods, information resources, big data resources and physical education curriculum content in physical education classroom teaching.



Figure. 1 The Cloud Computing Model (image from the Internet)

2. THE PROPOSED METHODOLOGY

2.1 Integration of Information Technology and Physical Education Teaching to Promote Students' All-Round Development

The starting point of integration is to emphasize the application of information technology to physical education courses and teaching; The function is to break through the traditional sports teaching concept, promote the development of quality education, enrich the teaching methods of sports class, and break through the key and difficult points of sports teaching. Secondly, we should reasonably handle the

transition from traditional sports teaching to modern sports teaching, so as to avoid causing greater learning burden and psychological burden to students, and having a greater impact on the teaching effect and quality; Finally, we should pay Teachers can carry out theoretical teaching with the help of information technology, which can not only effectively enhance the interest of theoretical teaching, but also make the relevant teaching content more intuitive; Modern physical education management system (including: teaching management system, course learning system, examination management system, information query system, billing management system, data statistics and analysis system, physique monitoring system, sports technology evaluation system, etc.); College physical education network teaching curriculum; wait. As the leader of physical education teaching, teachers should pay attention to the renewal of teaching ideas, the innovation of teaching ideas and the transformation of teaching thinking.

2.2 The University Students' Career Education

In order to promote the effective integration of sports teaching and information technology, teachers need to formulate teaching plans and goals that meet the actual needs according to the actual situation of students and the functional characteristics of information technology, so as to improve the effectiveness of sports teaching as a whole. Improve teaching efficiency, guide students to change from "passive learning" to "inquiry learning", and teachers' teaching gradually to "research"; The significance lies in that it cannot only stimulate the creativity of teachers and students, but also promote the improvement of teachers and students' information level, which is conducive to the experiment and promotion of new courses under information technology.

In addition, the integration of information technology and physical education teaching is conducive to breaking through the traditional physical education teaching mode, so that teachers' choice of teaching materials is no longer limited to what they like and are good at, so that students can get comprehensive and positive development and exercise. Secondly, we should pay attention to the cultivation of information technology application level and information technology literacy of college physical education teachers. As the key factor of physical education teaching, teachers have a crucial influence on both the effect of physical education teaching and the integration of information technology. Therefore, colleges and universities should constantly strengthen the cultivation of information technology application level and literacy of college physical education teachers.

3. CONCLUSION

The skillful use of information technology to carry out physical education teaching not only greatly stimulates students' enthusiasm for learning, but also gives students the influence of beauty, so that students can increase their ability to feel, express and create beauty, and organically combine modern teaching methods with traditional methods, complement each other, and make comprehensive use of them, making physical education teaching form In the process of physical education teaching, teachers should also flexibly use modern information technology according to different

teaching contents and methods to maximize its teaching role. While emphasizing the importance of information technology, we should also adhere to the laws of physical education teaching, which can promote the development of physical education teaching.

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Innovation Path of Ideological and Political Education Idea and Mode for College Students under the Background of Cultural Fusion

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Abstract: In the context of media integration, the ideological and political education of college students appears to be closer in expression, timelier in content, more extensive in user choices and more convenient in promoting interaction between teachers and students. At the same time, they are also faced with the dilemma of backward ideological and political education concepts, insufficient attention of colleges and universities, uneven content and lack of platforms and talents. Faced with the opportunities and problems brought by financial media, colleges and universities should pay more attention to financial media, change educational concepts, strengthen the establishment of financial media platform and integrate media integration resources, so as to ensure the smooth development of college students' ideological and political education under the background of media integration.

Keywords: Innovation Path; Ideological and Political Education; Cultural Fusion

1. INTRODUCTION

As an important classroom for cultivating college students' ideals, beliefs and moral sentiments, the ideological and political education of college students plays an important role in carrying forward and disseminating socialist core values. China's traditional history and culture have a long history. China's excellent traditional culture has played a positive and important role in the ideological and political education of college students. The integration of traditional culture into the ideological and political education training system of college students not only promotes the spirit of Chinese traditional culture, but also improves college students' understanding of the ideological and political aspects. It is an important way to show China's confidence in the road, theory, system and culture.

At present, the ideological and political education concept of college students is still relatively traditional, and the ideological and political education system is fixed. The relatively backward educational ideas and fixed educational methods, and then derived a series of problems. For example, the content of paper information is relatively single, which reduces its appeal to college students, it is difficult to stimulate students' learning initiative, and it is difficult to give full play to the ideological guidance role of college students, and so on. It affects the advantages of financial media in college students' ideological and political education and the effective improvement of the quality of college students' ideological and political education. At the same time, teachers and students, as participants of the financial media platform, have more extensive freedom of speech and the right to know. Some colleges and universities cannot keep pace with the times in time, leading to the separation of colleges and students from the group of teachers and students, which hinders the smooth development of ideological and political education for college students.

It is of great significance to integrate China's excellent traditional culture into college students' ideological and

political education. It can not only effectively enhance the effectiveness of college students' ideological and political education, but also help college students establish a correct outlook on life, values, employment, etc. It can also inherit and carry forward the excellent traditional culture of the Chinese nation and build strength for the great rejuvenation of the Chinese nation. The Innovation in Traditional Culture and Ideological and Political Education, published by Renmin University Press and edited by Wang Yi, provides better guidance for teaching and research in this field from the perspective of theory and practice.

Integration decision tree into the ideological and political course is shown below:

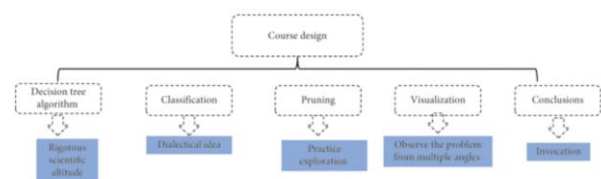


Figure. 1 Integration decision tree into the ideological and political course.

2. THE PROPOSED METHODOLOGY

2.1 The Fusion of Culture and Ideological and Political Education of College Students

Marx once said: "People create their own history, but they do not create it at will, not under the conditions they choose, but under the conditions they directly encounter, established, and inherited from the past." Therefore, it is necessary to inherit the excellent traditional Chinese culture, integrate it into the ideological and political education mechanism of college students, and innovate the education concept, Promote the further development of the working mechanism of ideological and political education.

Because college students pursue individuality and lack mature value judgment ability, they are vulnerable to the influence of bad thoughts hidden in the subculture background, and thus produce anti-social emotions in the process of pursuing subculture, which indirectly increases the difficulty of ideological and political education in colleges and universities.

At the same time, in the context of media integration, it is very easy to generate a large number of public opinions, and students will be affected by public opinion while receiving social information. If students participate in the process of negative public opinion dissemination, they will further expand the scope of negative public opinion influence, thereby affecting the normal social order.

2.2 The University Students' Career Education

The traditional culture of the Chinese nation is broad, profound, and rich in connotation, which is a concentrated reflection of the good moral customs of the Chinese nation. In the construction of the combination of traditional culture and ideological and political education, only by cultivating college students' ideal moral sentiments and social host values through moral cultivation and inheriting and discovering the spiritual connotation of the traditional Chinese culture can we open up the future and make better innovation.

Some colleges and universities lack full understanding of media integration, so that the construction of the financial media platform is ignored; After introducing new media such as WeChat official account, microblog and QQ, some colleges and universities simply push ideological and political education information without personalized processing.

Ensure that the ideological and political education of college students can be integrated into the communication mechanism of the media in an innovative form and strengthen the ideological and political construction of college students. Finally, colleges and universities should improve the supervision mechanism of the financial media platform, the press spokesman mechanism and the post event response mechanism to ensure the smooth development of ideological and political education for college students.

If education is divorced from reality, it is empty talk. Only real educational ideas, real educational methods, real educational content, etc. can constitute real teaching and learning and achieve educational effectiveness. The book combines theory with practice. In addition to the theoretical analysis of the connotation of Chinese spirit, the history of ideological and political education, and the characteristics of Chinese moral education, it also focuses on guiding the way with practice and exploring the education and teaching of ideological and political theories.

These traditional cultural spirits play an important role in guiding and infecting the construction of college students' morality and cultivating people. Through the construction of traditional culture, we can form a moral consciousness of being cautious, introspective, respectful and nurturing. Then we can use traditional culture to guide students' thoughts, and imperceptibly improve the ideal moral sentiment of college students. And through setting up complaints, reports and other ways, users will be included in the team of active supervision to further ensure the correctness of the content.

3. CONCLUSION

The traditional culture is integrated into the ideological and political education training system of college students, carrying forward the spirit of Chinese traditional culture, improving the ideal moral level of college students, solving the impact of the integration of Chinese and Western cultures on the ideological and political education of college students, and demonstrating China's confidence in the road, theory, system, and culture. Therefore, in the face of media integration, colleges and universities should fully recognize the obstacles of bad information transmission to college students' ideological and political education while making use of the advantages of information dissemination, and ensure that college students' ideological and political education work is completed comprehensively, scientifically and effectively by innovating education methods, changing teaching concepts, and building a good education environment.

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Exploration of Commercial Illustration Teaching Mode for Art Majors in Colleges and Universities in the Internet Era

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Abstract: The arrival of the "Internet plus" era has put forward new requirements for the theoretical courses of art design majors in colleges and universities. This paper analyzes the teaching mode of theoretical courses of art design specialty in the era of "Internet plus" and puts forward new reform strategies. Systematically summarize the problems existing in the teaching of commercial illustration, improve and optimize the teaching methods based on Internet information technology, and explore the teaching reform mainly from four aspects: national art, information teaching, two-dimensional code, and self-packaging, so as to improve the quality of teaching and obtain the best teaching effect.

Keywords: Commercial illustration teaching; art majors; Internet era

1. INTRODUCTION

Since the concept of "Internet plus" was put forward, a series of economic and educational forms related to it have been quietly formed. Colleges and universities have also gradually implemented the "Internet plus" teaching model, such as "Internet plus education", "Internet plus teaching", "Internet plus courses", "Internet plus learning", etc. The author discusses and studies the current theoretical course of art design major in colleges and universities, analyzes the current actual situation and existing problems of the course, absorbs advanced foreign teaching models and combines them with the actual situation of Chinese colleges and universities, and puts forward a reasonable reform plan. Illustration plays a certain role in the information dissemination on the Internet, and can be said to be an indispensable part, which requires the help of the commercial illustration discipline.

Illustration is widely used in many fields. There is an inseparable relationship between illustration design and book design, advertising, and modern media. Books need vivid and rich illustrations, and advertising also needs persuasive illustrations. It can be said that traditional industry media cannot do without illustration. Today, the use of digital media illustration is even more indispensable, even countless. The development and evolution of foreign illustration art is tortuous and long, which can be calculated from the earliest Spanish Altamira cave murals and the French Lascaux cave murals found today. Although the art of illustration in China has a long history, so far, the market of illustration in China is relatively chaotic, and it is relatively late to take illustration as a professional skill occupation.

Illustration design itself has no fixed pattern. Through continuous intertextuality experiments on ideas, forms, colors, structures, painting scenes and contents, it can help illustrators rethink, innovate and discover unique personalized visual language. "Constant changes can affect all forms of visual communication: the flexibility of method application, the emphasis on critical thinking, the brewing and generation of ideas, and basic painting skills are all crucial.

2. THE PROPOSED METHODOLOGY

2.1 Research on the Teaching Reform of "Internet plus" Commercial Illustration

The author not only serves as the teaching of professional practice courses, but also as the teaching of design introduction, and has found some problems in his work for several years. For example, in the syllabus, whether the semester setting for theoretical courses can meet the teaching needs of practical courses to the maximum extent, Whether the compilation of theoretical course textbooks and practical courses complement each other.

Whether the proportion of theoretical content and practical ability set in the final examination paper is reasonable, and what is the emphasis.

(1) From the market point of view, today's publishing houses, media organizations, animation design companies, etc. are in urgent need of professional illustrators. They have high requirements on the level of designers. Designers are required to have high professional quality, professional painting, software application ability and a certain degree of aesthetic insight. The course of commercial illustration design in colleges and universities should improve students' painting ability and familiarity with software application and should be carefully cultivated in aesthetic teaching. The study of illustration course aims to promote students to understand and master the basic concepts, basic knowledge, basic principles and basic design methods of illustration design, and cultivate students to master the basic characteristics, performance techniques and performance styles of illustration design. Transmit new design concepts and new thinking and improve students' ability to engage in design independently and appreciate illustration design works.

(2) The course structure design of project-based teaching mode. Project based teaching must give students considerable space to explore and create freely, and only freedom can truly arouse students' internal drive for learning. The internal drive

of students' learning comes from their desire to solve problems, that is, their interest in unknown things, or their ability to solve problems through gradual improvement to achieve self-worth. Most of the teachers in the theoretical courses of art design major in colleges and universities are also practical teachers, but most of the teachers in the art design major are good at creating works and have less time to study teaching methods, so the teaching level of most of the teachers in the art design major in theoretical courses is lower than that of other professional teachers.

2.2 The University Students' Career Education

The author feels that during the teaching of practical courses, the course can be carried out with ease, and the expected teaching effect can also be achieved in the era of "Internet plus", commercial illustration is combined with national art, and national art is integrated into illustration to reflect their real value. The industry of commercial illustration will go further and wider, open the door to big countries and go to the world. Each country has its own cultural forms and art forms. China also has countless excellent traditional cultures and art forms. The teaching of commercial illustration should introduce these two aspects and cultivate students' cognitive ability of traditional culture and art, make it learn from the traditional cultural and artistic forms in the design process. The illustration curriculum cannot simply learn the textbook content, nor can students only master the basic knowledge of illustration and simply learn the relevant operating tools.

In the era of rapid development of the Internet and We Media, illustration has various forms of expression and presentation. Due to the development of AI, many skills have been replaced, including simple painting (AI painting). Project design in project-based teaching can be divided into two categories: one is virtual projects, which focus on cultivating students' innovation and self-exploration ability; the other is practical projects, which are completed according to actual customer needs. In the design of virtual topics based on non-commercial goals, we should focus on combining current hot spots, guide students to conduct multi-dimensional traceability analysis on hot spots and encourage students to give full play to their personal free imagination and expression in an open form by exploring the deep relationship between objects and images.

3. CONCLUSION

Through the above description, we can understand some problems in commercial illustration. The preset goal of the degree is not completely aligned with the market, and the teaching content has not been updated in real time. These are not conducive to the development of current commercial illustration teaching. Illustrations should be combined with market society, digital media, cultural and creative industries through information technology. A very important module in the iteration of illustration teaching mode is to establish an illustration art exchange platform, not only to provide students with learning and exchange opportunities, but also to provide graduates with a display opportunity, to integrate with the market on a broader basis, that is, to maintain the continuity of teaching and receive feedback on teaching effects.

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Innovative Research on the Design and Development of Innovative Products from the Perspective of Cultural and Creative IP

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Abstract: Based on the current situation of the development of cultural and creative products in public libraries in China, this paper analyzes the relationship between cultural IP and cultural and creative products, puts forward the problems existing in the development of cultural and creative products in public libraries, points out the important role of cultural IP in the development of cultural and creative products in public libraries, and discusses some strategies for the development of cultural and creative products in public libraries from the perspective of cultural IP. This paper discusses the triple dimensions of red cultural symbol extraction methods from characteristic buildings, revolutionary cultural relics and revolutionary stories, focuses on cultivating high-quality red IP images, and proposes the triple path of "IP+technology", "IP+story" and "IP communication" for innovative design of red tourism cultural and creative products, so as to promote the high-quality, diversified, sustainable and healthy development of red tourism.

Keywords: Design and development; innovative products; cultural and creative IP

1. INTRODUCTION

With the advent of the Internet era, human society has entered the digital and information age. China's society has developed rapidly, accelerating the transformation and upgrading of various fields, and people pay more attention to spiritual pursuit. Under the new media environment, public libraries, as an important repository of knowledge, have complied with the development requirements of the times and made significant contributions to the protection, collation and dissemination of traditional culture. A game, a movie, a novel, a song, a tourist attraction, even a person or a phenomenon can all be called IP.

The 2018 China Culture IP Development Summit Forum was held in Beijing, at which the 2018 China Culture IP Industry Development Report was released. The report enriched the connotation of IP and redefined IP: specifically, it refers to the connection and integration between cultural products. It is a cultural symbol with high recognition, own traffic, strong liquidity penetration and long liquidity cycle. We call such a cultural symbol "cultural IP". Creative economic policies can promote the vigorous development of cultural and creative industries,

(1) Therefore, in order to ensure the steady progress of the development and design of cultural creative products, museums need to formulate more scientific, comprehensive and long-term development strategies and plans. First, relevant departments need to formulate relevant policies and plans for the commercial development of museum resources in a timely manner to provide necessary support for the development and design of cultural and creative products for museums.

(2) From the perspective of consumers, cultural IP represents a certain kind of label and cultural phenomenon, which can arouse interest, and users are willing to pursue it, which may be transformed into consumer behavior; From the perspective

of operators, cultural IP represents a certain brand and intangible assets, which can be transformed into consumer goods and realized value realization through commercial operation and industrial integration.

(3) In the red tourism industry, how to build the red tourism cultural and creative products into a high-quality IP, or even a super IP, must rely on the rich connotation and distinctive characteristics of the red cultural resources, a powerful cultural matrix, and deeply tap the cultural accumulation with the red cultural value as the core, so that it has both cultural and commercial value attributes.

What open innovation allows and takes away is shown below.

	Monopoly Rents	Ricardian Rents
Cost	<p>Allows: Rents from barriers to entry from economies of scale in such areas as operations, and from experience-curve effects in operations and knowledge management</p> <p>Takes Away: Rents from barriers to entry from scale benefits in innovation, and access to and the cost of capital</p>	<p>Allows: Rents from employee know-how in such areas as operations, from organization culture, and from the network relationships with leaders in the open-innovation community</p> <p>Takes Away: Rents from the ability to capitalize on innovation synergies from R&D spillovers and the interaction between internal and external sources of innovation</p>
Differentiation	<p>Allows: Rents from product differentiation, distribution-channel control, and customer switching costs</p> <p>Takes Away: Rents from proprietary product design</p>	<p>Allows: Rents from firm reputation, employee knowhow in such areas as operations, and organization culture</p> <p>Takes Away: Rents from employee know-how and a culture that anticipates customer needs</p>

Figure. 1 What open innovation allows and takes away

2. THE PROPOSED METHODOLOGY

2.1 Meaning of cultural and creative IP

Create red cultural IP symbols by means of artistic design such as extraction, transformation and reconstruction, and develop and design red tourism cultural and creative products that meet the high-quality spiritual needs of tourists, so that tourists can have emotional resonance and dependence with IP products, establish a sense of IP image recognition, and increase the sense of identity and existence of red cultural values. The connection between cultural IP and cultural and creative products lies in that cultural IP is the core driving force for the design and development of cultural and creative products. It contains rich cultural elements and distinctive aesthetic features, which can empower cultural and creative products:

(1) Cultural and creative products from the perspective of cultural IP are not only "objects", but also cultural expressions. The aesthetic value it contains is not only the spread of traditional Chinese philosophy, values and ways of life, but also the cultural needs, ideals and aesthetic feelings of contemporary people, so as to achieve the integration and unity of practicality and aesthetics. Cultural and creative products are the abbreviation of cultural and creative products.

(2) Cultural and creative products are designers who interpret certain cultural connotation and draw material and spiritual cultural elements from them, combined with the characteristics of the times A series of "cultural derivatives" designed by external factors such as social aesthetics. Tourism cultural and creative products are cultural and creative products in the tourism field.

(3) It refers to creative products with added value created by designers through the development and utilization of intellectual property rights through the exploration of resources and connotation of tourist destinations. Like derivatives in other fields, tourism cultural and creative products also include various handicrafts, office appliances, daily necessities, decorations, souvenirs, etc.

2.2 The University Students' Career Education

Museums need to pay enough attention to the development and design of cultural and creative products and include them in the museum management system. At the same time, they can also establish a set of perfect assessment mechanisms for the development and design of cultural and creative products, so as to maximize the enthusiasm and enthusiasm of staff. In addition, relevant government departments also need to constantly improve relevant laws and regulations, so as to provide a good atmosphere and environment for the development and design of cultural and creative products.

As a special commodity, red tourism cultural and creative products flow into the market. The most important and significant feature of red tourism cultural and creative products is their use value. If they are separated from this essential attribute, they will lose their existing value and significance. Libraries, museums and other cultural units actively respond to the call of national policies, tap their own advantages and distinctive resources, increase the design and development of cultural and creative products, and revitalize traditional libraries. With their high aesthetic value of beauty, they have become tourist attractions that domestic and foreign tourists yearn for.

The reason why tourism cultural innovation can be different from other cultural innovation lies in the correlation between its cultural connotation and territorial characteristics.

If Lushan Cultural Creativity wants to form its uniqueness, it must excavate its own uniqueness and apply it to cultural and creative products. The uniqueness of Mount Lushan's natural landscape lies in the numerous strange mountains and rocks, overlapping mountains and competing peaks. Many museums are short of talents, which seriously restricts the development and design of cultural and creative products,

3. CONCLUSION

With the continuous development of social economy, human society has entered the era of digital and cultural consumption. As a treasure house of document information resources, public libraries have important social and practical significance in strengthening the design and development of cultural and creative products. From the perspective of cultural IP, thus forming emotional resonance and cultural identity, making red tourism cultural and creative products an effective carrier and publicity channel for patriotism education in the new era, and promoting the high-quality, diversified, sustainable and healthy development of red tourism.

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Application and Research of Virtual Reality Technology in Brand Design

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Abstract: The reform and innovation of virtual reality technology in brand design has greatly promoted the development of brand design in the media field. This paper introduces the content of virtual reality technology, describes the brand effect of virtual reality technology on brand design, introduces its specific performance and application, and gives specific solutions according to the defects of virtual reality technology in application, and explores the corresponding solutions Virtual display makes use of its special platform and form, and brings great impact to the brand market. This paper mainly discusses the development of virtual reality technology and its impact on brand communication, as well as how to change brand design ideas and methods to adapt to the communication form of virtual reality.

Keywords: Virtual reality technology; brand design

1. INTRODUCTION

With the continuous development of China's economy, the living standard of residents is also increasing. In the advertising design industry, the virtual reality technology, which was born out of the development of science and technology, is gradually expanding its influence. Because of the variety, large number and single mode of advertisements, the audience has already had a resistance to them. Virtual reality technology, through its interactive viewing mode, enables users to obtain an immersive experience, which improves this problem. In the 1990s, American scientists Burdea and Coiffet proposed three basic characteristics of virtual reality, namely, interaction, immersion and imagination, referred to as 3I.

According to different application fields of virtual reality technology, the proportions of these three characteristics are also different. These common jewelry display forms have their own advantages and limitations. At the same time, with the development of e-commerce and the maturity of online consumption, people also put forward higher requirements for jewelry display.

With the rise and application of virtual reality technology, new opportunities are brought for the development of jewelry display. As a new type of advertising communication platform, virtual reality is still strange to most people. The design form and promotion of traditional advertising are simply forced output, and the audience influence is not high. The experiential style of virtual reality is to combine the content of advertisements with the experience of virtual scenes, so that users can implant advertisements and integrate them with scenes when they achieve a good situational experience.

(1) If we can be more excellent in the production effect and creativity of the advertisement, the display power and influence of the advertisement will be stronger.

(2) In the advertising design industry, only the combination of high-quality content and high-end technology can bring users a good viewing experience. However, the current advertising design industry in China has encountered the problem of low

advertising quality. Even with advanced virtual reality technology, it still cannot bring users a good experience, which seriously reduces users' desire to buy. The biggest market application of virtual reality technology is the entertainment industry. Technology and entertainment have become a mutually reinforcing relationship. Portable VR System at Idaho National Labs is shown below.



Figure. 1 Portable VR System at Idaho National Labs.

2. THE PROPOSED METHODOLOGY

2.1 Advantages of Virtual Reality Technology in Brand Design

People can use technology to create a virtual world, researchers can use virtual scenes for better scientific research, and ordinary people can use these scenes to experience and relax the heavy work and life. As the concept of mass entertainment consumption is getting higher and higher, more market space has been created in scientific and technological entertainment.

In the most common form of jewelry physical display at present, the customer's visual perception obtained from it will be greatly affected by the external conditions at that time. For example, in dynamic physical display, jewelry works are generally small in size, and are often interfered by the stage, lighting, model performance, clothing matching, music and

other external factors in the display. In addition, the display time is short, and the details and materials cannot be displayed normally; The multimedia display with text, pictures or Flash content can only provide the jewelry floor plan. The information provided to customers is limited, there is a certain gap with the physical objects, and there is a lack of interactivity. The regulatory department should further strengthen the supervision, improve the supervision efficiency, and improve the quality of advertising content. For the advertising design department, the advertising designer should keep in mind the product functional characteristics and product advantages, and convey them to users through reasonable and real advertising content.

Therefore, advertising content should not only have depth, but also have a sense of detail, reflecting the advantages of the product in small aspects. Advertising under virtual reality technology fully demonstrates its personalized characteristics. The transformation of various virtual scenes brings users different experiences. Advertising in virtual reality scenes must follow up appropriately with the design content, otherwise it will appear too abrupt and uncoordinated.

2.2 Prospect of Brand Design Under Virtual Reality Technology

This requires advertising designers to conduct a lot of research and analysis, accurately grasp the transformation of virtual reality scenes and the combination of products and customers, so as to produce excellent advertising content. Similarly, virtual reality technology is used in jewelry display, and virtual 3D model is used as the jewelry expression form, which can not only display jewelry products 360 degrees in an all-round way, but also enlarge, shrink, and rotate them at will to obtain multi-directional, multi angle, and continuous observation. Moreover, virtual reality technology supports real-time rendering, so it has incomparable advantages over two-dimensional and three-dimensional single frame images. The interactive browsing mode makes it more advanced than multimedia display mode.

In the use of virtual reality technology, the law is the most powerful weapon. Relevant personnel should improve the laws and regulations on the use of virtual reality technology as soon as possible, and standardize the development of virtual reality technology. First, the national legislature should formulate relevant laws and regulations to ensure the rationality of its operation; Secondly, the national judicial authorities should strictly supervise and review the application of virtual reality technology; In addition, virtual reality technology enterprises should speed up the pace of technological innovation in the application process to bring users an excellent sense of experience.

At the same time, consumers themselves should resolutely resist false advertisements to promote the healthy development of virtual reality technology. According to the statistics in 2016, the click through rate of virtual reality ads reached more than 30%, while that of mobile phones was 1% and that of PCs was only 0.4%. The advertising conversion rate of online virtual reality is 5.3%, while that of mobile virtual reality is only 0.05%. And statistics show that 80.6% of users will read the virtual reality advertisements. The super high conversion rate of virtual reality advertising has brought a new revolution in advertising production and

communication, which is different from traditional advertising and focuses on copywriting and graphic design.

3. CONCLUSION

As the "intrusive" brand has affected our life, people's antipathy to the brand is growing day by day. With the development of modern science and technology, relevant brand industry personnel responded to the requirements of the masses to innovate the brand form, and used virtual reality technology to reform and innovate its content and experience, greatly improving the product experience and functional performance. Therefore, it will not replace the physical display form in the short term, but it brings us a humanized and novel interactive experience, which indicates a new development direction of jewelry display in the future. At the same time, it is also expected that the above analysis will play a role in the future related research.

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Application of Testing Machine PIB Technology in Intelligent Hardware-Assisted College Sports Remote Training System

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Abstract: This paper firstly analyzes the characteristics of testing machine PIB from the technical level, and analyzes the role of PIB technology in college sports remote training. First, it discusses an intelligent in-machine testing PIB verification system. The remote software/hardware faults are injected into the system under test to verify the validity of the PIB design. Then combine React and Angular frameworks to establish the front and back systems of the college sports remote training system to visualize sports data, use PIB hardware for sports data entry, and combine hardware and software to assist the perfect operation of the college sports remote training system, with a real-time efficiency of 97%.

Keywords: Testing Machine, PIB Technology, Intelligent Hardware, Sports Remote Training System

1. INTRODUCTION

With the improvement of the degree of integration of avionics systems, in-flight testing (BIT) has become an important way to improve the fault diagnosis capability of avionics systems [1]. In China, the research on BIT technology is still in its infancy. In 1990, after the promulgation of the "Testing Program for Electronic Systems and Equipment", various units have carried out this work to varying degrees [2], and achieved some remarkable results. Especially in the development of avionics systems of certain types of aircraft, BIT has been written into the development task book as an [3] important design requirement, and the actual BIT design has been carried out, which has advanced various technologies and methods of domestic BIT design and analysis to a great extent. Step [4].

In the computer advanced human-machine interface industry, virtual reality technology (Virtual Reality, VR for short) is a representative of [5] the frontier of technology, involving sensor measurement technology, Internet technology, graphic recognition and processing technology, artificial intelligence and other fields [6], interactive and conceptual development concepts, so that participants can get the same experience as the real scene. The combination of computer virtual reality technology and college sports training is a creative attempt and an important content of educational technology reform [7]. The application of virtual technology changes It has provided a broader imagination space for the exploration of new teaching methods and the training of knowledge and skills [8]. "Virtual reality" mainly simulates various real scenes through computers, so it can transform the simulated scenes correspondingly under human operation, so as to perfectly link reality and imagination. This ability has two-way interaction, which makes the computer "virtual reality" technology have interactive characteristics [9].

Because of this, technicians can selectively simulate various non-existent scenes in real life, which is of great significance in scene simulations such as film and television shooting or physical research [10]. With the help of "virtual reality" technology, people can completely immerse themselves in this virtual environment created by computers. In this virtual

environment composed of computers [11], participants can more intuitively observe the external motion laws of things, and more By systematically understanding the internal changes of the object [12], the participants can make the feeling almost exactly the same as the feeling in the real world through their own contact with the things in this virtual environment, so that the participants are completely in it, Make it part of this virtual system [13].

With the development of network and computer technology, the era of informationization and intelligence is coming [14]. The intelligence of the Internet of Things is based on big data, forming an intelligent network distributed in agriculture, home furnishing, urban monitoring, logistics and other application fields [15]; large-scale intelligent equipment has been used in the manufacturing industry for complex machining, intelligent the representative of the robot has been initially applied [16], the technology is becoming more and more mature, and the application will be more and more extensive. In addition, due to the continuous advancement of UAV technology, the reliability and safety of many airborne equipment in the UAV [17] system have received extensive attention from people from all walks of life. At present, the main purpose of UAV researchers is how to accurately and efficiently simulate and monitor the signals generated by UAV airborne equipment [18].

At the same time, due to the high degree of complexity of the UAV system, it not only includes the onboard computer, but also has many avionics such as sensors [19], engines, and steering gears. Therefore, in order to efficiently complete the test of the overall UAV system, it is necessary to test and simulate Atmospheric signals, digital I/O signals, output signals, and input signals generated [20] by the entire UAV equipment. Compared with the in-depth development of BIT design and analysis, another very important area of BIT research has not received due progress during this period, which is the verification and evaluation of BIT [21]. In the past two to three years, the research on the verification and evaluation of BIT has been continuously strengthened [22], and it has become a new hot spot in the research of BIT technology. Create a "self-learning" environment that can be used anytime and anywhere, and use information technology

to enable learners to obtain learning mode switching experience [23].

2. THE PROPOSED METHODOLOGY

2.1 The Tester PIB Technology

The host computer is the main control computer of the in-machine test system, which is connected with the fault injector and the system under test through the serial interface. The system software resides in the host, which is used to set and control the fault injector to generate various fault modes, and to analyze and process the fault injection results. As the host computer of the system under test, the host computer is used to receive the fault detection results from the system under test.

With the enhancement of national strength, the development of sports in our country is very rapid, and the technical difficulty of competitive sports continues to increase, especially in sports with strong confrontation, the increase in difficulty increases the potential risk of injury during training. This is indeed the case. The application of computer virtual reality technology, training in a virtual real environment, reduces this risk, complex technical movements, training difficulty and intensity become as easy as usual, and eliminates the training process. Accidental Injury Situation. Athletes in a computer-simulated environment can let go of their hands and feet and focus on the training itself.

If a large-scale system contains 1000 sensors, there will be 1000 analog acquisition channels, including voltage, temperature, strain, potentiometer, ICP and other analog types, which results in the more test parameters, the more complex the data acquisition system. , The greater the technical difficulty, the longer the design/integration cycle. Taking the networked acquisition system of a certain type of machine as an example, it includes 30 collectors, nearly 200 analog acquisition modules, and more than 3,000 various analog acquisition channels. Therefore, the automatic test system needs to build a corresponding connection relationship model and test Resource models, etc., and these models cannot be separated from the specific software operating environment, so the automatic test system will be affected by the operating environment during the auditing process. Secondly, in the process of defining and describing signals, there are many differences between different standards, so the calling methods, configuration resources and architectures of different automatic test systems are quite different, and there is no unified signal-oriented system. Standard for the development of automated test systems.

2.2 The PIB-Based Smart Hardware Assistance

The fault injector has a serial interface with the host and a fault injection interface with the system under test. The former is used for information transmission with the host; the latter is used to apply fault signals to the system under test and receive information about fault detection of the system under test. When the system is working, the fault injector first latches the fault injection parameters and control commands sent by the host, and controls the sequence of each component of the fault injector, simulates the corresponding fault mode, and then injects faults into the system under test.

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The wireless transceiver receives the signals output by multiple and multiple types of sensors, and encodes and outputs them in the form of a bus through the main control module.

2.3 The College Sports Remote Training System

The entire system is housed in a unified equipment cabinet. The design of the equipment cabinet is beautiful in appearance, reasonable in layout, convenient in use and maintenance. When the fault injector injects faults, the fault can be injected into the system under test only through the quick-removable XKE series aviation plugs/seats fixed on the rear chassis board of the system under test without opening the chassis. The key content is to let students master a certain technical movement and make their movements more standard through corresponding training. At present, many countries have increased the construction of various simulation, simulation and virtual reality technologies.

This simulation system can comprehensively analyze the specific content of athlete's training and find out the problems existing in technical movements, so as to strengthen training in the later actual training and improve the effect of students' physical training. The conception of virtual reality technology is based on the powerful expansion function of this technology, which can open up the imagination of human beings infinitely and change the scope of human cognition. Through it, this feature can inspire people's thinking and imagination ability to a great extent. The application of wireless sensor network will make the design of collectors simpler, and the number of collectors will be greatly reduced. It is foreseeable that the collectors in the future only need a limited number of bus acquisition boards to meet the test requirements of large-scale tasks. The number will also be reduced to one-tenth or even less.

At present, although the acquisition method of motion three-dimensional information has gradually developed from the previous mechanical type to the current electromagnetic type, the "active tracking method" is still the main method of motion three-dimensional information acquisition. This method is to paste special marking points on the key sports parts of the body of the collected object. Because this method is not allowed in the rules of many sports competitions, coupled with the highly developed technology and precision of competitive sports in the world today The characteristics of the athlete, sticking the marking point on the body of the athlete who is in the fierce competition state will definitely have a great impact on the athlete's state performance and the achievement of excellent results.

3. CONCLUSION

The PIB technology of the test machine can create a scene that simulates a real training environment. With the help of multimedia technology, it can produce vivid and informative teaching videos and play the explanation repeatedly. Many problems must be dealt with reasonably, not only must face the problem, but also strengthen the confidence of future development. Through the application of PIB technology of testing machine in college sports basketball, aerobics, volleyball teaching and daily training, virtual scenes can

reduce the training intensity of athletes improve the pertinence, efficiency and quality of training. The host sends a fault injection command to the fault injector, and the fault injector injects faults into the system under test according to a certain sequence, and simultaneously sends a synchronization signal to the system under test to determine the fault detection time.

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1. INTRODUCTION

With the improvement of the degree of integration of avionics systems, in-flight testing (BIT) has become an important way to improve the fault diagnosis capability of avionics systems [1]. In China, the research on BIT technology is still in its infancy. In 1990, after the promulgation of the "Testing Program for Electronic Systems and Equipment", various units have carried out this work to varying degrees [2], and achieved some remarkable results. Especially in the development of avionics systems of certain types of aircraft, BIT has been written into the development task book as an [3] important design requirement, and the actual BIT design has been carried out, which has advanced various technologies and methods of domestic BIT design and analysis to a great extent. Step [4].

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environment composed of computers [11], participants can more intuitively observe the external motion laws of things, and more By systematically understanding the internal changes of the object [12], the participants can make the feeling almost exactly the same as the feeling in the real world through their own contact with the things in this virtual environment, so that the participants are completely in it, Make it part of this virtual system [13].

With the development of network and computer technology, the era of informationization and intelligence is coming [14]. The intelligence of the Internet of Things is based on big data, forming an intelligent network distributed in agriculture, home furnishing, urban monitoring, logistics and other application fields [15]; large-scale intelligent equipment has been used in the manufacturing industry for complex machining, intelligent the representative of the robot has been initially applied [16], the technology is becoming more and more mature, and the application will be more and more extensive. In addition, due to the continuous advancement of UAV technology, the reliability and safety of many airborne equipment in the UAV [17] system have received extensive attention from people from all walks of life. At present, the main purpose of UAV researchers is how to accurately and efficiently simulate and monitor the signals generated by UAV airborne equipment [18].

At the same time, due to the high degree of complexity of the UAV system, it not only includes the onboard computer, but also has many avionics such as sensors [19], engines, and steering gears. Therefore, in order to efficiently complete the test of the overall UAV system, it is necessary to test and simulate Atmospheric signals, digital I/O signals, output signals, and input signals generated [20] by the entire UAV equipment. Compared with the in-depth development of BIT design and analysis, another very important area of BIT research has not received due progress during this period, which is the verification and evaluation of BIT [21]. In the past two to three years, the research on the verification and evaluation of BIT has been continuously strengthened [22], and it has become a new hot spot in the research of BIT technology. Create a "self-learning" environment that can be used anytime and anywhere, and use information technology

to enable learners to obtain learning mode switching experience [23].

2. THE PROPOSED METHODOLOGY

2.1 The Tester PIB Technology

The host computer is the main control computer of the in-machine test system, which is connected with the fault injector and the system under test through the serial interface. The system software resides in the host, which is used to set and control the fault injector to generate various fault modes, and to analyze and process the fault injection results. As the host computer of the system under test, the host computer is used to receive the fault detection results from the system under test.

With the enhancement of national strength, the development of sports in our country is very rapid, and the technical difficulty of competitive sports continues to increase, especially in sports with strong confrontation, the increase in difficulty increases the potential risk of injury during training. This is indeed the case. The application of computer virtual reality technology, training in a virtual real environment, reduces this risk, complex technical movements, training difficulty and intensity become as easy as usual, and eliminates the training process. Accidental Injury Situation. Athletes in a computer-simulated environment can let go of their hands and feet and focus on the training itself.

If a large-scale system contains 1000 sensors, there will be 1000 analog acquisition channels, including voltage, temperature, strain, potentiometer, ICP and other analog types, which results in the more test parameters, the more complex the data acquisition system. , The greater the technical difficulty, the longer the design/integration cycle. Taking the networked acquisition system of a certain type of machine as an example, it includes 30 collectors, nearly 200 analog acquisition modules, and more than 3,000 various analog acquisition channels. Therefore, the automatic test system needs to build a corresponding connection relationship model and test Resource models, etc., and these models cannot be separated from the specific software operating environment, so the automatic test system will be affected by the operating environment during the auditing process. Secondly, in the process of defining and describing signals, there are many differences between different standards, so the calling methods, configuration resources and architectures of different automatic test systems are quite different, and there is no unified signal-oriented system. Standard for the development of automated test systems.

2.2 The PIB-Based Smart Hardware Assistance

The fault injector has a serial interface with the host and a fault injection interface with the system under test. The former is used for information transmission with the host; the latter is used to apply fault signals to the system under test and receive information about fault detection of the system under test. When the system is working, the fault injector first latches the fault injection parameters and control commands sent by the host, and controls the sequence of each component of the fault injector, simulates the corresponding fault mode, and then injects faults into the system under test.

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The wireless transceiver receives the signals output by multiple and multiple types of sensors, and encodes and outputs them in the form of a bus through the main control module.

2.3 The College Sports Remote Training System

The entire system is housed in a unified equipment cabinet. The design of the equipment cabinet is beautiful in appearance, reasonable in layout, convenient in use and maintenance. When the fault injector injects faults, the fault can be injected into the system under test only through the quick-removable XKE series aviation plugs/seats fixed on the rear chassis board of the system under test without opening the chassis. The key content is to let students master a certain technical movement and make their movements more standard through corresponding training. At present, many countries have increased the construction of various simulation, simulation and virtual reality technologies.

This simulation system can comprehensively analyze the specific content of athlete's training and find out the problems existing in technical movements, so as to strengthen training in the later actual training and improve the effect of students' physical training. The conception of virtual reality technology is based on the powerful expansion function of this technology, which can open up the imagination of human beings infinitely and change the scope of human cognition. Through it, this feature can inspire people's thinking and imagination ability to a great extent. The application of wireless sensor network will make the design of collectors simpler, and the number of collectors will be greatly reduced. It is foreseeable that the collectors in the future only need a limited number of bus acquisition boards to meet the test requirements of large-scale tasks. The number will also be reduced to one-tenth or even less.

At present, although the acquisition method of motion three-dimensional information has gradually developed from the previous mechanical type to the current electromagnetic type, the "active tracking method" is still the main method of motion three-dimensional information acquisition. This method is to paste special marking points on the key sports parts of the body of the collected object. Because this method is not allowed in the rules of many sports competitions, coupled with the highly developed technology and precision of competitive sports in the world today The characteristics of the athlete, sticking the marking point on the body of the athlete who is in the fierce competition state will definitely have a great impact on the athlete's state performance and the achievement of excellent results.

3. CONCLUSION

The PIB technology of the test machine can create a scene that simulates a real training environment. With the help of multimedia technology, it can produce vivid and informative teaching videos and play the explanation repeatedly. Many problems must be dealt with reasonably, not only must face the problem, but also strengthen the confidence of future development. Through the application of PIB technology of testing machine in college sports basketball, aerobics, volleyball teaching and daily training, virtual scenes can

reduce the training intensity of athletes improve the pertinence, efficiency and quality of training. The host sends a fault injection command to the fault injector, and the fault injector injects faults into the system under test according to a certain sequence, and simultaneously sends a synchronization signal to the system under test to determine the fault detection time.

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