

Research on Data Mining Model of Digital Art Education under the Background of School-Enterprise Cooperation

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Abstract: Digital art education is facing opportunities and challenges in the Internet era. Starting from the multi-demand of digital art education personnel training, this paper explores the data mining model of digital art education under the background of school-enterprise cooperation. It is believed that the use of data mining technology, school-enterprise cooperation can establish an effective database for it. The data mining activities themselves need to define the categories for the various levels of talent development, and can effectively solve the problems existing in the current digital education activities.

1. Introduction

School-enterprise cooperation is an important way of Vocational education, which has been highly praised in the process of training applied talents for many years. However, in the process of school-enterprise cooperation, how to determine goals and carry out teaching activities in the process of personnel training has become a difficult point in the cooperation between schools and enterprises. Although both schools and enterprises have mastered a large number of graduate employment information, job information, and personnel information. However, the effective interpretation of information has not been realized, which has led to a lack of in-depth understanding of the situation of personnel training and employment. There is information asymmetry in terms of personnel training and hiring.

Fortunately, the current computer technology provides a new technical support for data mining activities, so that the visual data of the overall digital art professional education activities has a better analytical way. On this basis, an in-depth analysis of professional education activities is achieved. This makes the overall school-enterprise cooperation activities not unseen, but has a solid information base. Therefore, in the process of digital art professional education. It is of great significance to use professional software platform to realize effective data mining in the process of students' learning, to determine the focus of students' learning process, and to realize personalized teaching.

2. Big Data Age and Data Mining

JUAN ENRIQUEZ described the big data era in The Glory of Big Data as follows: "We have moved from a world where data samples are extracted and summarized to a new world where all data in specific fields are collected and analyzed-this is a 'big data' era." The characteristics of the big data era, Gartner's explanation is: First, the same type of data is increasing rapidly; second, the speed of data growth is accelerating; third, the diversity of data, that is, new data. Sources and new types of data are constantly increasing.

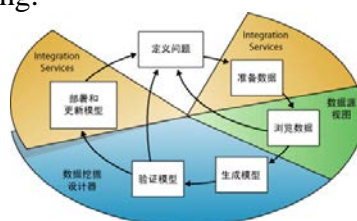


Fig.1 Data Mining

Data mining generally refers to the process of searching for information hidden in it from a large amount of data through an algorithm. By mastering a large amount of data as material, on the basis of the algorithm to retrieve and classify the data in the form of algorithms, it is possible to understand the development mode and characteristics of objective things from the law of data presentation. On this basis, we can understand and predict the needs of future things and the direction of future development. Therefore, relevant policies and activities can be effectively adjusted. In recent years, data mining has been widely used in the Internet industry and many ordinary industries, pointing out the way for the development of many industries, improving the efficiency and effectiveness of the work.

The premise of data mining is to master a large number of accurate data, which can be collected by oneself or purchased by relevant institutions. Secondly, it is necessary to analyze and mine large data by definite and scientific algorithms, and draw a conclusion, which depends on professional software or platform.

3. Data Mining Model of Digital Art Education under the Background of School-Enterprise Cooperation

Digital art education is facing opportunities and challenges in the Internet era. Opportunities refer to the broad prospects for development and employment prospects of Digital Art Majors in the Internet era. This promotes the rapid development of digital art education. The challenge is that professional education activities may lag far behind the development of the digital art industry, and it is impossible to provide talents with comprehensive skills and broad horizons for the development of the industry. In this context, the importance of school-enterprise cooperation and data mining is highlighted. Under the premise of close cooperation between schools, enterprises and technology platforms, the specific data mining model is as follows:

3.1 Long-term Data Mining: Determining the Overall Plan of Talent Training Guided by Talent Demand

What kind of talents should digital art specialty cultivate to meet the needs of enterprises and markets? To solve this problem, it is necessary for schools and enterprises to carry out long-term organic regulation and control of the number of personnel training on the basis of cooperation. This requires the formulation of professional personnel training programs and the form of long-term mechanism of school-enterprise cooperation. The core of all this is to conduct data mining and analysis for the current industry and market demand for personnel. This data mining and analysis is long-term, dynamic, and macroscopic. It needs to be related to social reality and employment.

In order to achieve this goal, schools and enterprises can cooperate with professional companies through the Ministry of Education Industry-University Cooperation and Education Project. Through the company's career development department to grasp the job responsibilities requirements, job skills requirements, salary levels, geographic distribution and other big data to grasp and analyze the talent capacity standards, and develop a talent training program. To put it simply, it is through the big data mastered by relevant platforms to control the employment situation and employment flow of digital art professionals. At the same time, we collect and analyze the data of job skills, salary level and geographical distribution. Through the analysis and mining of data, we can determine which enterprises, which industries and which regions the different graduates of digital art majors go to work after graduation. And compare the salary level of graduates after graduation, so that we can positioning the professional graduates'graduation flow to more centralized enterprises and regions. And select high-quality, high-salary enterprises and regions. Help students sort out the skills they need to get a good job and a high salary. For example, in recent years, the data found that more graduates of digital art majors are heading north to the deep network media companies and the media industry. Then, schools should use this as a benchmark to investigate the employment needs of these enterprises. Then adjust the overall plan for talent training based on such talent needs. Make the overall talent training keep up with the rhythm of the times.

It is relatively more rigid than the traditional digital art professional training school to determine

the content and direction of talent cultivation. Adopting data mining can timely, flexibly and effectively adjust talent training activities. This has significant significance for the dynamic change of the overall orientation of the talent training program and the strategy of revitalizing the school personnel.

3.2 Dynamic Data Mining: Determining the General Direction of Professional Training Guided by Professional Direction

In the digital art professional education, there are also many kinds of talents training direction. In many teaching directions, with the change of market and enterprise demand, there are always some directions that need to strengthen the training of talents, while others need to be eliminated or innovated. Under such circumstances, it is necessary to sort out the flow data of students in different directions and the demand data of enterprises under the situation of school-enterprise cooperation. Then judge the key direction and overall direction of professional training. Discard some untimely and backward professional directions and concentrate on maintaining professional development. The data mining in this aspect is very dynamic, and it requires relatively powerful data mastering and mining for the future development of digital art professional education and employment. It is necessary to analyze in a short period of time which digital art majors have problems in the development direction, no prospects, and timely and dynamic adjustments.

To achieve this goal, we must first collect data from both sides. On the one hand, the data comes from enterprises, and through the data platform, the questionnaires and data collection methods are used to collect the research on the recruitment and absorption of talents in different directions in digital art professional education in recent years. Analyze and judge the market's needs for talents in all directions, and find out which graduates are being eliminated in the market. On the other hand, the data comes from the graduates themselves, and the data collection of graduates of digital art is conducted through questionnaires. And to understand the development of different professional direction talents in the industry in recent years, collect their opinions and suggestions on professional development as a reference. By synthesizing the two materials, we can describe the market demand data and the prospect of graduates'personal career development. In this way, we can basically build a model of personal development of students majoring in digital art after employment. Whether the underdeveloped students'majors need to be retained or upgraded requires further analysis and judgment by the leaders of digital art majors. Through such data mining, digital art profession itself can be more healthy and reasonable in terms of professional development.

3.3 Personalized Data Mining: Identifying Individual Skills Training Scheme Guided by Students'Individuality

As far as digital art major is concerned, the requirement of enterprises for students often lies not only in the basic ability of students themselves, but also in the development of students'personality. Because digital art works with students'personality development can be more appealing from the artistic level. From this point of view, through the mining of students'personal data, we can determine the training program for the development of students' personal skills and realize what the educational circles call "customized education". The development of customized education activities is different from the previous big classrooms and major professional education. Being able to solve the usual educational activities can not improve the individualized development of students, resulting in the problem of personal ability being buried.

The development of personalized educational activities requires the collection of individual student learning information. This information is used to collect the courses selected by the students in the teaching activities, the scores achieved, and the grade points obtained. It also includes activities in school activities, borrowed books, and participating extracurricular programs. Through the overall evaluation of students' individualized learning programs and outcomes, it is possible to provide a general description of the overall abilities of students within and outside of professional learning. Understand what the strengths of students in and out of professional learning are, what are the shortcomings. Developing individualized professional training programs for students on the basis of advancing their strengths and avoiding their weaknesses can better bring students'own

strengths into play and carry out more specialized oriented training. For example, if some students are good at graphic design, they will arrange advanced courses in graphic design for them, so that they can go further in this respect. If there are bottlenecks in 3D design, then it is not necessary to force them to achieve basic capabilities during school learning. From this point of view, it is an effective and reasonable arrangement for students' personal development.

In the context of school-enterprise cooperation, such customized data mining activities can be carried out according to the enterprise's own talent needs. Enterprises, schools and students participate in the data mining process. Enterprises can reserve and cultivate directional talents according to their own needs for talents, so as to find a way out for the shortage of professional talents in the short term. For the students themselves, this kind of mining of their own data helps their personal strengths and capabilities to be extended. It is more conducive to the development of its own strengths and the benchmarking of various aspects. It has a very positive effect on the targeted employment of students in the future and the long-term development in a certain field.

3.4 Order-based Data Mining: Determining Individual Competence Promotion Scheme Guided by Enterprise Demand

In the process of teaching, we also need to take the needs of enterprises as a guide to help individuals improve their abilities. This process is also carried out through data mining. Usually in the process of professional training, we can not expect all students to be able to meet the needs of enterprises in terms of employment. It can only be said that the targeted training among the students in the school enables the students to meet the needs of the enterprise when they graduate, which also promotes the mode of "order-based" talent training.

In the "order-based" talent training model, companies can sort out the modules of teaching content according to their own requirements. On this basis, the data analysis of the students' personal abilities is carried out, and the strengths and weaknesses are complemented. Targeted human resources to cultivate business needs, to solve the needs of enterprises for professionals. What kind of people can enter the "order" has become the focus of professional training. At this time, we need to use data mining technology.

Usually, enterprises can make certain conditions for students' abilities according to their own talent needs. It can even produce a "test paper" for testing, distinguishing students' abilities or personalities, to screen the people they need. Through various kinds of tests to "score" candidates has become a more general model adopted by many large enterprises in recruitment, and has achieved good results. On the basis of this, linking stylized personal test results to data analysis can make the results clearer, clearer and more effective. The students of digital art can test through the platform. The results of the test can be judged by the analysis of the algorithm to determine which students are more suitable for the needs of the enterprise. On the basis of this activity, the company selects students who are more suitable for their needs, and then carries out targeted improvement for their own needs and students' shortcomings. Can effectively improve the individual ability of students. This approach also enables every student to have the opportunity to improve themselves and meet the needs of the business.

4. Conclusion

Data mining may be a new subject for the training of digital art professionals, but it represents the future of digital technology development and brings a new wave of digital technology. Today's digital art education activities need to keep pace with the development of digital technology. In this process, school-enterprise cooperation has established an effective database for data mining. The data mining activities themselves need to define the categories for the various levels of talent development, and jointly help the professional development of digital art professionals. It can effectively solve the contradiction between the training of digital professional teaching talents and the needs of enterprise talents.

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Presided over the collaborative education project of the ministry of education on "advertisement design" teaching content innovation and teacher training based on virtual reality VR technology ", which was approved in March 2019. Project number: 201802202017

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