

# Research on the Integration of Production and Education of Digital Economy Specialty in Colleges and Universities of Heilongjiang Province

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**Abstract:** *With the vigorous development of digital economy and the support of favorable national policies, application-oriented digital talents will become important talents in the future market. It is urgent for colleges and universities to build digital economy majors and actively promote the integration of industry and education. This paper analyzes the training mode under the integration mode of production and education of digital economy specialty, further analyzes the problems existing in the integration of production and education of this specialty and puts forward targeted improvement suggestions. The research results can provide certain reference value for the construction of digital economy specialty and the improvement of the integration degree of production and education in colleges and universities.*

**Keywords:** *Digital Economy, Integration of Industry and Education, Reform in Education*

## 1. Introduction

With the popularization and application of digital technology in life, digital economy has also become one of the hot majors in colleges and universities. At the same time, under the background of the industry actively implementing the digital strategy, and the future market will generate a large number of demands for digital talents. The collision and integration of digital technology and traditional industries will give birth to a series of new industries and models, thus creating a large number of employment opportunities. With the change of market demand for talents, how to realize the integration of industry and education and cultivate high-quality digital talents will become an urgent problem for colleges and universities.

## 2. Training mode of digital economy specialty in Heilongjiang Universities under the integration of production and education

### 2.1. Training objectives of digital economy specialty under the integration of production and education

Under the background of the vigorous development of the digital economy, the cultivation of digital economy professionals in colleges and universities in Heilongjiang Province mainly reflects the following characteristics: first, attaching importance to professional application ability. In the future, we need not only professionals with professional information skills, but also cross-border professionals complementary to information skills, including digital management, product research and development, digital marketing, digital operation, intelligent manufacturing and other digital talents.[1] All these are the characteristics of the combination of professional practice and application. Secondly, the digital economy specialty focuses on interdisciplinary integration. In the context of the implementation of the national digital strategy, professionals in the digital economy need to be familiar with the current economic operation law and the future transformation direction. At the same time, in the future, talents engaged in blockchain, big data, artificial intelligence and other new fields need to have multi-disciplinary backgrounds. Finally, the digital economy should cultivate advanced application talents facing the digital transformation of enterprises. We should pay special attention to the digital practice ability in the enterprise, which will be one of the most important parts in the future enterprise recruitment process.

## ***2.2. Curriculum system design of digital economy specialty under the integration of production and education***

Under the background of enterprise digital transformation and the guidance of cultivating compound talents, Heilongjiang colleges and universities set up talent training programs from the perspective of comprehensive development. In the early stage, we will start with the demand for digital talents in the market and collect relevant suggestions on professional setting from relevant government and enterprise human resources management departments. At the same time, we will interview the discipline leaders and relevant teachers of our discipline to listen to their ideas and opinions on the professional setting. We should make full use of the data of market research to improve the setting of the curriculum system. The core courses of the digital economy major mainly focus on the cross content of economy, management, computer data analysis, etc.[2]

## ***2.3. Teaching methods of digital economy specialty under the integration of production and education***

High quality digital talents need professional digital knowledge background and practical ability in life. Under the current background of "integration of production and education", Heilongjiang colleges and universities adopt the online and offline mixed teaching method, and introduce high-quality network resources into traditional teaching classrooms, so as to enrich teaching resources, improve students' learning enthusiasm and improve teaching methods. In addition, case teaching is added in the classroom to guide students to solve problems in real life scenarios through enterprise application cases in life, so that students can enhance their understanding ability of professional knowledge and application ability of digital skills in the process of "learning by doing".

## **3. Problems existing in the integration of production and education of digital economy specialty in colleges and universities of Heilongjiang Province**

### ***3.1. The integration of industry and education in digital economy is insufficient***

With the continuous development of emerging technologies such as big data, artificial intelligence and blockchain, the digital economy specialty will have a broader application prospect in the future. However, for domestic universities, it takes a short time to train digital talents such as big data, cloud computing and artificial intelligence. In addition, the market demand is changeable. At present, the training of universities can not fully meet the talent demand of enterprises, and there is still a shortage of high-quality digital talents. Although most colleges and universities have signed a series of school enterprise cooperation agreements with enterprises, and will arrange students to conduct field research and study during the training process, these efforts are far from enough from the deeper requirements of integration of production and education. The integration of industry and education really emphasizes the application of subject research in enterprise development and promotes the development of the whole industry. The development of industry can also promote the further development of scientific research and realize the benign interaction between scientific research and industrial development. At present, the cooperation and depth of universities in this field need to be improved.

### ***3.2. Traditional teaching methods can not meet the needs of talent training***

Traditional teaching methods rely too much on Teachers' past experience to formulate teaching methods and training models.[3] At present, this method can not meet the training needs of professionals in the digital economy era. Although some market research will be carried out before the opening of new majors, the market demand is changeable, which requires the professional training to keep pace with the pace and adjust to meet the needs of industrial development at any time.

### ***3.3. The evaluation system of digital professionals needs to be improved***

At present, digital economy is a new development specialty, but the evaluation system of digital talents mostly adopts traditional evaluation methods, and fails to achieve substantial internal transformation in the evaluation objectives, subjects and indicators. At the same time, it also failed to adjust the evaluation indicators of talents according to the changes of market demand, which led to the trained professionals unable to meet the development needs of enterprises in the future. In the context of the integration of industry and education, it is more required that future digital talents have strong

comprehensive abilities. Therefore, we can not rely on a single way to evaluate talents, and we should build diversified indicators to comprehensively measure talents.

### ***3.4. The professional level of teachers needs to be improved and cannot meet the needs of students' development***

The level of teachers will greatly affect the learning effect of students, so the primary task of colleges and universities to improve the students' learning effect is to improve the professional level of teachers. Digital economy major is a new type of development major in China, so China is in the exploration stage for this field, and not too many talents are invested in the field of education, which leads to the lack of teacher resources in this major. At present, many teachers in this major are similar to this major. The school conducts a certain degree of training for teachers and begins to give professional teaching. Such teachers have a relatively shallow understanding of this professional content, and their understanding of this professional content only exists in theoretical knowledge, and he has less practical experience, which cannot bring students more professional teaching content. This greatly restricts the development of students and affects the cultivation of digital economy professionals.

## **4. Measures for the integration of production and education of digital economy in colleges and universities in Heilongjiang Province**

### ***4.1. Promoting deep cooperation between schools and enterprises***

Implementing the strategy of integrating industry and education and promoting the mode of deep school enterprise cooperation are the only way for China to train high-quality professionals. Colleges and universities should further deepen the school enterprise cooperation program, create a deep cooperation mode of integration of production, learning and research, and make full use of the characteristics of rapid market response to provide the latest support for the training of digital economy professionals. In addition, we can actively organize students to enter enterprises for practical training and learning, at the same time, regularly invite enterprise experts to carry out lectures and learning for students, so as to ensure that students can understand the project implementation in the process of enterprise operation in advance on campus, guide students to understand and participate in various stages of enterprise digital projects, and further cultivate students' practical application ability, problem-solving ability and efficient organization and communication ability. Through deepening cooperation with schools and enterprises, students can not only adapt to the working environment, processes and modes in advance, but also ensure that students can master the requirements of enterprise talents in advance and carry out targeted improvement and learning.[4]

### ***4.2. Establishing digital teaching platform***

The advent of the digital era provides convenience for all fields. Universities can use the convenience brought by digitalization to optimize the teaching methods in the school, so as to improve students' learning efficiency. Colleges and universities can use the development of digital technology to establish a digital teaching platform, combine the innovative teaching concept of "big data + education", and use the latest educational technology and teaching resources, in order to promote the transformation of traditional teaching to big data teaching, and strengthen the management of professional training. We should create a teaching path with discipline characteristics and enhance the core competitiveness of professionals. On the one hand, we should use the teaching platform of big data to collect students' information, study the common problems in the learning process, find out the reasons, design and carry out teaching models that meet the characteristics of students, and teach students according to their aptitude to meet their individual needs. On the other hand, by using the high-quality resources and cases on the Internet, teachers actively guide students to participate in discussions, deeply discuss the problems of existing enterprises, and stimulate students' creative thinking, to provide innovative talents for future industrial development.

### ***4.3. Building a diversified talent evaluation system***

A single talent evaluation system cannot carry out an all-round evaluation of talents, and has certain limitations. It is necessary to establish a diversified talent evaluation system to make the most standard evaluation of talents. Building a diversified evaluation system requires comprehensive consideration of

the following three aspects. The first is education evaluation, which refers to the requirements of digital training objectives for students to master knowledge, and comprehensively considers the educational activities / processes and results. Secondly, we can conduct academic evaluation, and evaluate the professional knowledge and practical ability that students should have in the future by means of examination, assessment and psychological evaluation, so as to ensure that students have professional knowledge literacy and lay a solid foundation for future industrial innovation and development. Finally, the social evaluation is carried out, and the employer was investigated by telephone and email. The questionnaire is designed to understand the employer's satisfaction with the students, and the relevant opinions and suggestions are collected and sorted out to provide a feasible rectification direction for the future professional improvement and the integration of production and education.

#### **4.4. Build a high-quality teacher team**

The professional level of teachers will greatly affect the learning effect of students, so schools need to do a good job in teacher training, so as to improve the teaching quality of teachers, and then improve the learning effect of students, and cultivate excellent talents for the digital field. In the field of digital economy, China is relatively short of talents, and universities need to overcome the difficulties brought by the lack of talents and fully explore the potential strength of university teachers. Choose teachers with similar content to digital economy majors for outside training, so that teachers can become talents in this field, and then bring high-quality teaching content to students. Colleges and universities can provide opportunities for teachers to further their study twice, encourage teachers to study across majors, provide places for teachers to learn, and arrange professional talents to train teachers. In addition, teachers can be sent to enterprises off-campus for practical learning, so as to exercise teachers' practical operation ability, cultivate teachers' theoretical knowledge and improve teachers' practical ability, which is conducive to the implementation of subsequent students' practical teaching. Colleges and universities can also rehire talents, encourage outstanding graduates to return to school for teaching, so as to achieve the dissemination of knowledge, cultivate more high-quality talents into the market, and meet the needs of enterprises for digital talents.

### **5. Conclusion**

With the development of national economy, the demand for digital talents is also increasing, which puts forward higher requirements for the teaching of digital economy majors in colleges and universities. The teaching of colleges and universities should combine the requirements of enterprises for talents to cultivate application-oriented talents and meet the needs of the talent market. The application of the teaching mode of "integration of industry and teaching" has an obvious effect on the training of digital high-quality talents. Universities need to pay attention to the application of this teaching method and devote themselves to the training of talents. The strategic transformation of the national digital economy in the future and the trend of social digitization have made higher requirements for future employment talents. This paper first analyzes the teaching mode of the integration of production and education of the digital economy specialty, deeply analyzes the problems existing in the process of the integration of production and education of the specialty and puts forward relevant improvement suggestions, aiming to provide reference and reference for the future universities to promote the integration of production and education of the digital specialty.

### **Acknowledgement**

Fund Project: Exploration on the Innovation Mechanism of Production and Education Integration of Private Colleges and Universities in Heilongjiang Province under the Demand Orientation Project No.:GJB1421566.

### **References**

- [1] Liu J, Zheng L. *Research on the new business talents training mode of the integration of industry and education in the application-oriented universities in the digital economy era [J]. Journal of Beijing Union University 2022; 36(02):7-12.*
- [2] Sun D. *An analysis of the construction of the talent training mode of the integration of industry and education in the exhibition specialty under the new economic normal [J]. Marketing circles 2021;*

(07):188-189.

[3] Xiang Y, Chen J. *Connection, interaction and network effect: Research on the integration mode of industry and education in the era of digital economy -- taking the ITPD project of Alibaba Business School as an example [J]. Research on higher engineering education* 2020; (06):73-80.

[4] Long C, Pu Y. *Integration of industry and education: the value orientation of Chengdu education reform experiment -- an interview with Luo Zhe, vice president of School of Public Administration of Sichuan University [J]. Western China* 2013; (06):56-57.