

Research and practice on improving the correspondence between big data professional group and local industries

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Abstract

The importance of the big data industry plays a key role in the economic and social development of today's world. The big data industry in Jiangsu Province has developed rapidly and has become one of the important engines of economic development in the province. Vocational colleges, as a type of education, can and should provide strong talent protection and technical support for the development of the big data industry in Jiangsu Province. Jiangsu Maritime Institute explores the deep integration of industry and education, and serves the talent training model of local industrial layout. By fully integrating industry and education in resources, information, and other aspects, it can maximize their respective advantages and improve the correspondence between high-level software talent training and the big data industry in Jiangsu Province.

Keywords

Big data technology, integration of industry and education, higher vocational education, professional group, talent cultivation.

1. Introduction

Big data holds great importance in today's business, technology, and economic fields[]. Jiangsu continues to achieve new results by leading high-quality development driven by information technology. The added value of the core industries of the digital economy accounts for 11% of the regional GDP. The level of integrated development of informatization and informatization has ranked first in the country for eight consecutive years. As of 2022, the added value of the province's core digital economy industries will account for 11% of the regional GDP. The operating revenue of the electronic information manufacturing industry reached 4.2 trillion yuan, a year-on-year increase of 18%, and the software business revenue was 1.3 trillion yuan, a year-on-year increase of 16%, ranking second and third in the country respectively. Big data is the core engine for the high-quality development of the digital economy. Data has become the fifth major factor of production after land, labor, capital, and technology. It has become a basic strategic resource of the country and has been rapidly integrated into all areas of production and life. It is playing an important role in promoting the digital economy. The role of development has become increasingly prominent [2].

The rapid development of the big data industry has attracted a large number of college graduates and scientific and technological personnel, and the proportion of big data practitioners in the province to the total number of employees in the province continues to increase. From the perspective of innovation and development of the province's big data industry, Jiangsu Province's big data industry development level is at the forefront of the country in terms of output value and innovation level. However, compared with Guangdong, Shanghai and other provinces, the development of Jiangsu's big data industry still has some problems. As a sunrise industry, the shortage of big data talents has become a bottleneck restricting the rapid development of the big data industry in Jiangsu Province. Big data talents

are in an olive shape, that is, there is a lack of senior big data talents and a large number of blue-collar workers engaged in basic work. Higher vocational colleges are the main base for cultivating big data blue-collar talents. From this perspective, big data technology majors in higher vocational colleges are facing rare opportunities. But at the same time, big data majors in higher vocational colleges also face many external challenges, and the graduates they train often cannot find companies with professional counterparts.

In order to better meet the development of the big data industry in Jiangsu Province, Jiangsu Maritime Institute has closely followed these strategies of regional economic development through professional layout and improvement, focused on the development direction and goals of the regional pillar big data industry, and made timely preparations for the feasibility of professional setting. , dynamic and forward-looking analysis, and improve the big data professional group of higher vocational colleges to be in line with the development of local industries.

2. Review of Domestic and International Research

The key point for higher vocational colleges to highlight their own type characteristics and strengthen connotation development is to grasp the majors. The first step in cultivating professional talents is to align professional settings with local industry needs. Industrial demand is not only current demand, but also forward-looking, paying more attention to attracting emerging industries, and taking precautions to better grasp the direction of economic and social development.

2.1. Domestic Research

Yang et al. proposes that vocational colleges should realize the connection between professional settings and industrial needs, curriculum content and professional standards, teaching process and production process, graduation certificate and vocational qualification certificate, vocational education and lifelong learning, and comprehensively improve the quality of talent training[3]. You et al. studied the adaptability of major settings and industrial structure in agricultural higher vocational colleges in Jiangsu, and pointed out that it is necessary to base on local industries, eliminate backward majors that do not meet the needs of agricultural industry development and talent training, and update them to meet the needs of agricultural industry development [4]. The content of agriculture-related majors has been improved, and relevant majors urgently needed for the development of the agricultural industry have been added, making the structure of agriculture-related majors reasonable and efficient. Gu et al. pointed out that higher vocational colleges should scientifically study and judge the labor market demand and industrial technology innovation and development trends, and improve the synergy and fit between the professional construction of higher vocational colleges and industrial innovation and development [5].

The above studies have studied the professional setting policies of higher vocational colleges that serve Jiangsu's local high-quality development from different angles. However, through retrieval of CNKI literature, no scholars have studied industry fit from the perspective of professional group construction and big data application.

2.2. International Research

There are few foreign studies on the professional settings of higher vocational education. The professional settings of many community colleges in Europe and North America are generally very close to the local job market, are highly practical, and have relatively short professional hours [6]. Colleges usually cooperate with some industry associations to provide professional qualification and professional qualification training courses, and students can obtain

corresponding certificates through training. The school provides it according to market needs, staying close to the market in real time and serving the society efficiently.

3. A talent training model based on the deep integration of industry and education

3.1. Mechanism construction of professional groups corresponding to the industrial chain

From the three aspects of analysis of professional group docking talent demand, professional group docking industry upgrading analysis, and professional group docking regional economic development analysis, the docking of software professional groups and local industries has strong feasibility. The construction of higher vocational software professional clusters under the background of industry-education integration mainly includes: clarifying the professional cluster construction framework, straightening out the education mechanism, and deepening the reform of education and teaching; docking the industry industry chain and innovation chain, and building a professional cluster curriculum system integrating industry and education; innovation In the construction of teaching staff, strengthen the construction of dual-qualified teams and improve the teaching team of professional groups; build an innovative talent training platform and implement the characteristic development strategy of professional groups; build an industrial curriculum practice system, promote the integration of school-enterprise culture, and improve the teaching conditions of professional groups; establish Internal and external guarantee mechanisms for professional group construction.

To promote the effective integration of professional structure and industrial structure, the enthusiasm of higher vocational colleges and enterprises as the most direct participants in the integration of professional layout and regional economic development must be mobilized. The quality and effectiveness of school-enterprise cooperation in the integration of industry and education should be improved. The integration of industry and education and school-enterprise cooperation should, on the basis of ensuring the maximization of their respective interests, give full play to the resource sharing and synergy advantages of both parties' venues, equipment technology, human resources and various technical service platforms, and innovate Factory-within-School and School-in-School Factory talent training model trains and promotes professional teachers and enterprises to jointly carry out technological innovation, process innovation, and production organization form innovation, and promotes the breadth of fit in collaboration and innovation.

3.2. Dynamic adjustment mechanism for professional direction and content

The professional layout and professional setting are to solve the problem of what types of talents are needed by society, industry and enterprises, understand the ability requirements of the software industry and enterprises, and organize and implement the talent training plan according to the organization and implementation of the talent training plan, so that students can master the professional theory and technical skills to what extent they can do their jobs. Obtaining recognition from society and industry enterprises and delivering highly skilled talents to the society is the key to improving the fit between professional structure and industrial layout.

Deeply integrate into the local industrial chain and establish a dynamic adjustment mechanism for professional groups. Under the guidance of the professional group teaching steering committee and industry professors, relying on the job analysis system based on big data technology, evaluation indicators such as mainstream technology coverage and industrial contribution are obtained to dynamically adjust the professional direction within the professional group. Closely track the structural adjustment, technology upgrading and industry

cultivation of Nanjing's software industry, and systematically design and build general education, professional education, innovation and entrepreneurship teaching, and strengthen professional core courses and Integrate and optimize general courses, eliminate outdated courses, and jointly develop new courses with enterprises using key enterprise technologies and their real cases as samples.

4. Conclusion

Vocational colleges are responsible for cultivating high-skilled, application-oriented professionals who are needed on the front line of production, construction, service, and management. Facing the rapid development of industries, the professional settings and subject systems of higher vocational colleges must be adjusted in a timely manner to meet the development of local industries. The big data professional group of Jiangsu Maritime Institute organically combines the talent needs and technical needs of the industry with the talent training, technology research and development, and product transformation of higher vocational colleges to promote professional leadership in the industry. Not only to cultivate talents, but also to retain big data talents for Jiangsu. The professional group has always been oriented towards the sustainable development of talents and the direction of serving high-quality local development. It has built a talent training paradigm that deeply integrates industry and education and serves local industries, and has established a talent training paradigm focusing on new technologies and new business formats. The dynamic adjustment mechanism of professional settings promotes the development of professional groups.

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