

Research on training mode of innovative talents in universities under the background of digital economy

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Abstract: Digital economy has become a key factor in the current global resource restructuring, economic structure reshaping and competition pattern changing. If China wants to seize the opportunity of digital economy and seize the commanding heights of economic development, talent and innovation are the key. The lack of innovative talents has also become an important hindrance to the development of China's digital economy. Colleges and universities are the key talent cultivation bases in our country, and the cultivation of innovative talents is a new task entrusted to colleges and universities in the new era. Based on the current situation of talent demand under the digital economy, this paper conducts an in-depth study on the digital economy and innovative talent training from several aspects: changing the concept of innovative talent training, optimizing the discipline layout of innovative talent, innovating innovative talent training methods, strengthening the innovative talent training team, and deepening the integration of industry-university-research. It aims to promote universities to train more talents for society who can lead the development of digital economy.

Keywords: Digital economy; Innovative talents; Cultivate; path

1. Introduction

In today's era of vigorous development of digital economy, the competition at home and abroad is becoming increasingly fierce, so colleges and universities should study the education issues of "who to train", "how to train" and "for whom to train" in the digital background. Universities should not only train talents who can keep up with the pace of the development of the digital economy, but also focus on cultivating talents who can lead the development of the digital economy, so as to give play to the advantages of innovative talents and seize the advantages of the digital economy.

2. Current situation of talent demand in digital economy era

2.1. Background of innovative talents in digital economy

In the process of a new round of industrial revolution, digital technology and digital economy have become a new power engine for building a new pattern of development in the world field and enhancing the comprehensive strength of the country. In 2021, in the Proposal of the CPC Central Committee on Formulating the 14th Five-Year Plan for National Economic and Social Development and the Vision Goals for 2023, the CPC Central Committee made a systematic deployment of the digital economy, digital society and digital government, and positioned the development of digital economy and digital technology innovation as a national strategy. This also means that there will be greater prospects for digital careers in the future.

Science and technology is the primary productive force, talent is the first resource, and innovation is the first driver. The innovation driver of digital economy is talent, and the shortage of innovative talent is also a key factor hindering the development of China's digital economy. As the key educational base of our country, the cultivation of innovative talents is a new mission entrusted to colleges and universities in the new era. How to realize the dual drive of talent and innovation is also a problem that universities need to focus on and respond to in the future. The development of the digital economy cannot be achieved without innovation and talents. Only by seizing the opportunities of The Times and improving the digital literacy and ability of talents can we consolidate the foundation of the development of the digital economy and help the training of innovative talents in the digital economy [1].

2.2. Demand for key talents in the digital economy

Under the digital economy, digital economy has also become a popular major in colleges and universities. Key universities such as Renmin University of China, Nankai University and Nanjing University have opened relevant majors. From the Internet search attention of the "digital economy" from 2018 to 2023, it can be seen that Internet users' attention to the digital economy has skyrocketed.

Digitalization has driven the demand for talents in emerging industries to continue to rise. The skills of practitioners should not only be able to meet the needs of new jobs, but also urgently need to update their skills to better meet the needs of jobs. The following key talents are likely to be needed in various areas of the digital economy in the future:

The first category, digital basic research and development personnel. That is, people who have mastered basic digital skills. For example, chip R&D engineers, software development engineers, business architects and other traditional and communication information technology professionals, user experience design, big data experts and other new digital technology professionals. It is mainly innovative talents who focus on digital professional ability building and promote the development of digital economy with the research and development of underlying technologies.

The second category, digital crossover talent. That is, talents who can apply digital technologies to different business scenarios and promote digital transformation in various industries. For example, talents who develop and implement digital strategies for enterprises, talents who carry out digital marketing, talents who are proficient in digital finance, talents who understand smart agriculture, smart transportation, smart logistics, digital finance, and so on. This type of talent is mainly people who use digital technology to achieve integration with business models and create more new value for society.

The third category, digital governance talents. The emergence of digital technology has blurred the boundary between human beings and "physical reality" and digital to a certain extent, which will also breed certain practical ethical problems. Digital governance talents are those who focus on the research and processing of such problems. For example, the main role of various ethical artificial intelligence established from the perspective of human values is to avoid various risks existing in artificial intelligence itself, improve human living standards, and promote the healthy and sustainable development of human society.

2.3. Our country still has a large gap of digital talents

"China Digital Economy Employment Development Research Report: New Form, New Moss, New Trend (2021)" mentioned that by 2021, China's digital talent gap has been close to 11 million, and with the digital development of all walks of life, China's digital talent gap will be more and more large. From another perspective, the promotion of industry-wide digitalization and the promotion of digital industrialization requires a team of high-quality talents with a solid professional foundation and high ability, who can constantly optimize their digital knowledge structure and enhance digital skills with the development of the digital economy. Since 2019, the Ministry of Human Resources and Social Security has also released four batches of 56 new occupations, identifying digital-related occupational information such as all-media operators, digital managers, and artificial intelligence trainers, which has proposed more precise needs for digital talents in society from the perspective of occupational categories, which also fully reflects China's great attention to digital talents.

3. Innovative talent training path in digital economy era

Colleges and universities should actively shoulder the important task of cultivating innovative talents in digital economy. And focus on the training of innovative talents in the national strategy and the actual needs of social development.

3.1. Changing the concept of training innovative talents

The demand for talents under the digital economy has a distinct compound character, and the traditional concept of talent training based on discipline education in colleges and universities has been unable to meet the demand for innovative talent training in the new era. Taking economics related majors as an example, the emergence of artificial intelligence and big data has strongly impacted traditional economic research methods to a large extent. Colleges and universities should also follow

the needs of talent training under the digital economy, clarify the goals of talent training in the digital era, and promote the development of traditional education concepts in the direction of standardization, instrumentalization and intelligence. It is necessary to deeply study and understand the impact of 5G, artificial intelligence, big data and other new generation information technologies in traditional industries, explore and summarize the digital knowledge and technology applicable to the corresponding industries, follow the law of education development in the era of digital economy, and actively realize the innovation of education concepts. At the level of educational evaluation, it pays more attention to the comprehensive development of students' literacy, ability, personality and social responsibility, and is committed to cultivating students into new people who can truly control modern information technology, have thoughts, feelings and patterns. To enable students in the new era to lead the development of the digital economy, rather than being "led by the nose" by digital technology [2].

3.2. Scientific layout of innovative personnel training disciplines

One of the outstanding characteristics of digital economy talents is the interdisciplinary ability. Under the new technological revolution, the boundaries between many disciplines have become less clear. On the basis of ensuring the coordinated development of various disciplines, universities should build a multi-disciplinary cross-platform to promote the cultivation of innovative talents and scientific research. The discipline structure should no longer overemphasize the arts and sciences, but focus more on the long term, and take a longer time to evaluate the contribution value of each discipline to society and its innovative status in society. With higher theoretical requirements and the ability to solve practical problems as a reference, to promote interdisciplinary integration. Colleges and universities can adhere to the demand-oriented approach, focus on their own advantageous disciplines or disciplines related to new business formats in the digital economy, optimize discipline layout, adjust discipline structure, actively promote the development of new majors, and pay more attention to the practical utility, intersections and comprehensiveness of majors. For example, the University of International Business and Economics has proposed to cultivate a disciplinary ecological community with "digital economy" as the core in order to further empower interdisciplinary integration. The "Digital Trade Experimental Class" has also been set up, which has produced a series of valuable research results in education, scientific research, social services and other aspects.

3.3. Optimize and innovate the mode of training innovative talents

In order to further adapt to the development requirements of the digital economy era, colleges and universities should integrate digital economy-related knowledge into the whole process of talent training. It is not only necessary to focus on the continuous research and development of digital economy, computer, artificial intelligence, big data and other related majors, but also to consciously take into account the cultivation of relevant talents in digital economy development and digital economy governance, and truly integrate traditional majors and disciplines into the digital process of corresponding industries, industries and positions in society. Digital development in the field of education and teaching, digital development in the field of machinery and equipment and processing, etc. Combined with the demand for talents in the digital economy, we will further optimize and improve the way and system of talent training, and integrate the higher requirements of the society for specific posts under the digital economy into the standards and programs of talent training in colleges and universities. For example, we should pay close attention to the research and compilation of digital economy-related professional textbooks, incorporate more cutting-edge digital economy development achievements into the content of textbooks, and improve the degree of knowledge update of textbooks. Colleges and universities can invite social digital industry research departments to build digital general education courses with them; Colleges and universities set up digital trade, digital finance, intelligent machinery, digital governance and other related courses in combination with students' professional characteristics and industrial development needs. Relevant departments promote the development of digital skills courses by building a practical platform for digital skills courses, and exercise and cultivate students' digital awareness and digital literacy; Integrate students' digital literacy into the curriculum teaching objectives; Teachers can use scenario-based, experiential, cooperative, interactive and other forms of teaching methods to strengthen the connection between students and the physical world and the digital world, draw the distance between students and the digital economy, strengthen students' understanding, help students gradually tap their own competitive advantages in the tide of the development of the digital economy, and give students a broader employment space.

3.4. Strengthen the training of innovative personnel

The traditional education and teaching mode in colleges and universities is the immobilized teaching mode which takes classroom as the base, classroom as the carrier and teacher as the leader. On the basis of inherent location, unified teaching progress and content, and consistent learning rhythm, it is difficult for teachers to break the inherent educational concept and realize the innovation of education and teaching mode. Colleges and universities should actively apply advanced science and technology such as artificial intelligence and big data to the school education system, commit to promoting teachers to break the mindset, innovate teaching methods, and constantly improve teachers to apply digital thinking to the training process of innovative talents, and improve teachers' flexible adaptability and digital application ability. On the one hand, colleges and universities can widely attract excellent teachers with certain experience in interdisciplinary and digital practice from outside; On the other hand, colleges and universities should guide existing teachers to actively study and explore ways to promote the transformation of modern teaching organizations to digital forms, and provide sufficient funds, resources and human support. Guide teachers to actively apply digital collection and digital analysis technology in education and teaching content and teaching methods [3].

3.5. Deepen the integration of industry, universities and research institutes

In order to cultivate innovative talents under the digital economy, universities should not only optimize and integrate internal resources, but also fully combine and utilize external resources. Continue to promote school-enterprise cooperation, play a joint role, not only to help enterprises solve innovation problems, but also to help colleges and universities improve the quality of innovative talent training. First, universities enrich their curriculum system by relying on enterprise resources to promote the deep integration of industry, university and research. Colleges and universities exercise and improve students' practical ability of data information collection, analysis and processing through school-enterprise cooperation. Second, universities should introduce the innovation results of enterprises to effectively connect the industries related to the development of digital economy. Through the realization of teaching "project", colleges and universities combined with flipped classroom to develop the second classroom, innovate education forms, optimize service guidance, and do a good job in the system configuration for the deep integration of production, university and research.

4. Conclusion

To sum up, in the era of digital economy, there is a huge gap in China's digital economy talents. The digital economy talent is the key to promote China to seize the digital economy opportunities. In the new era, colleges and universities should also shoulder the heavy responsibility of cultivating innovative talents, follow the law of education development, take social needs as the guide, change the concept of innovative talent training, scientifically layout innovative talent training disciplines, optimize the mode of innovative talent training, strengthen the innovative talent training team, and promote the deep integration of industry, university and research. Only in this way can digital knowledge be integrated into the whole process of innovative talent training.

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