The Training Mode of Chinese Higher Education Innovative Talents in the Age of Intelligent Manufacturing

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Abstract. In this paper, the author proposed points such as: the goal of establish the integration of innovative talent cultivation, the design mode the training of innovative talents, diversification of teaching management mode and network supervision evaluation mechanism based on innovative personnel training. Based on these, education policy proposals have been set to adapt to the era of intelligent manufacturing.

Introduction

In the 1980s, with the Internet, data, and so on high-tech information to support the new Manufacturing Technology arises at the historic moment, opens the intelligence the starting point of The Times, and including the Intelligent Manufacturing Technology (Intelligent Manufacturing Technology, IMT) and Intelligent Manufacturing System (Intelligent Manufacturing System, IMS) content of Intelligent Manufacturing, Intelligent Manufacturing) time has come. In 2013, the industrial 4.0 proposed by relevant German institutions at Hanover industrial exposition opened the starting point of the fourth industrial revolution. In 2015, China proposed made in China 2025. Therefore, in the era of intelligence, China's higher education is required to provide advanced skills talents and intelligent management talents with compound innovation. Based on the establishment of the integration of talent training goal, setting the innovative talent training scheme, diversification of teaching management mode of the construction of the supervision evaluation mechanism and network, is proposed for intelligent manufacturing era policy recommendations of China's higher education innovation personnel training, to cope with the era of intelligent in Chinese higher education personnel training the enormity of the challenge.

Realistic Demand for Innovative Talents in Higher Education in the Era of Intelligent Manufacturing

In contemporary society, the way people obtain information has been characterized by diversification, rich content and high speed, which is a breakthrough in the production of single machine in the Information Age, which has realized the automation control of the whole production system, which is brought about by the age of intelligent manufacturing. Finally, the manufacturing industry is digitalized, networked, intelligent and uniform. Development in the direction of service. Specifically, in the era of intelligent manufacturing, the demand and supply of talents in higher education show the following requirements in terms of talent structure, talent type, talent characteristics and employment and employment.

The Structure of Talent Demand is Flattened

In the era of machine production, human production requires talent for skilled personnel to master skilled technical ability, and engineering talents with control ability for construction and design of engineering projects. In the intelligent manufacturing system, the demand for talent has changed, that is, the integration of the original single professional personnel to the talent and the trend of integration. Due to the integration of talents at all levels, the demand structure of talents in the era of intelligent manufacturing is flat. Intelligent manufacturing production is more needed to master technical theories and skills and to be skilled in integrating a great number of innovative technology and skill talents, especially the complex talents who be able to skillfully apply various kinds of...
production software. Therefore, the level of talent demand in the era of intelligent manufacturing presents an overall trend of flat development.

The Type of Talent Demand is Advanced Skill, New Compound Intelligence Talents

The production system in the era of intelligent manufacturing has an important impact on the impact of China's higher education personnel training mode. In the past, the number of traditional post workers in the era of machine manufacturing has been reduced or even disappeared, and a great number of new posts with high scientific and technological content have emerged. This makes robot programmers becoming the trend of talent demand and development in the age of intelligent manufacturing.

In the intelligent manufacturing system, the number of traditional post workers in the age of machine manufacturing is facing cuts or even disappearance, and even more people need more in some links. In the face of the working mode of the age of intelligent manufacturing, the knowledge and ability structure of the original technical and skilled personnel will be changed greatly. Therefore, the intellectualized era has put forward greater demand for the advanced compound intelligent talents of Chinese higher education. So, as to increase the demand for high-end intelligent talents with high technology capability.

Applied Talents with Complex Advanced Systematic Knowledge and Professional Fields that need to Control Robots

In the traditional mechanized production stage, the independent operation system, such as supply, sale and after-sale, makes the staff highly specialized and independent. The goal of the intelligent production system is to connect the product line with inventory, product after sale and customer through intelligent communication. It is a large system including four main topics, such as intelligent production, intelligent factory, intelligent logistics and intelligent service. The intelligent production system integrates service and production. Technical skills will face a new mode of work, that is, they have to be directly oriented to the customers and have the ability to contact with customers and communicate in all directions. In addition, intelligent manufacturing staff must have customized production concept according to customer needs.

In the age of intelligence, the development of the large data and digitization of the Internet requires that the graduates from colleges and universities not only master the basic knowledge and skills of their jobs, but also master the knowledge of intelligent information, that is, they can identify and operate all kinds of professional application software, and have a good grasp of the interconnection. Network technology mobile terminal technology and e-commerce technology and other advanced application capabilities. Therefore, in the era of intelligent manufacturing, it is necessary for the applied talents who master the knowledge of computer system and combine with the requirements of specialized fields.

The Realistic Demand of College Students' Employment and Job Choice in the Intelligent Era

With the continuous adjustment of economic and economic structure in China, in the transition from labor intensive manufacturing to machine manufacturing and intelligent age industry, many traditional industries have reduced the demand for employees, for example, the number of employees in the steel industry in recent years has decreased year by year. In the era of on-the-job manufacturing, some new industries, such as information technology, stylistic entertainment, business service and science and technology service, have played an important role in the "pressurizer" of employment. In the above 4 emerging industries, the employment of college students is up to 5 percentage points. Therefore, in order to better solve the problem of the two-way coordination between the talents needed by the society and the training of talents in Colleges and universities, it is imperative to cultivate the goal of cultivating the innovative talents in the era of high technology and large data intelligent manufacturing in China.
Therefore, on the basis of comprehensive analysis of talent demand characteristics and practical needs in the age of intelligent manufacturing, the training of Chinese higher education talents is defined as innovative and intelligent talents. Based on the inherent requirements of the intelligent production system, innovative and intelligent talents with high-end skills must carry out research work, so innovation has become an essential task in the training of higher education talents in China.

The Problems of Talent Training in China's Higher Education in the Era of Intelligent Manufacturing

Theoretical Classroom Teaching is Divorced from Real Business, and there are Still Gaps in the Demand for Innovative and Intelligent New Composite Talents in the Intelligent Age

With the reform of higher education in China, colleges and universities have assumed the responsibility of cultivating the talents needed for the society, but they can only begin with basic theoretical education, and the study of professional courses is often taught by no practical experience. Teachers cannot really teach the textbook theory in combination with the actual business, thus causing the disconnection between the theoretical classroom and the actual business. Although the existing professional training programs set up professional practice and social practice research activities, due to time, research conditions and environment, related rules and regulations are limited to varying degrees, the theory and practice are not efficient and comprehensive.

Therefore, the new intelligent talents needed in the age of intelligent manufacturing, that is, can accurately grasp the various links of the work and production system and operate the relevant software skillfully, and can deeply study the creative talents of specific products and processes. In the end, there is a big demand gap and training space.

Professional Curriculum and Reform Remain in the Form. The Training Mode of Mentoring System under School Enterprise Cooperation is not Deep and Lasting

In recent years, many institutions of higher learning have set up professional practice bases to arrange the contents of holiday social practice. However, this kind of social practice activity is more in the surface industry school enterprise cooperation, and there is less stability in the enterprise. In the undergraduate stage, the students' professional practice only stays in the daily customer reception and the trivial matter handling stage, and exercises the necessary skills for professional posts, because it only uses the holiday to carry out the social practice investigation and professional practice, to the less actual business scope and content, and the secret problem of some unit business. There is no real contact and experience; as a result of the 3-5 months of internship and job selection after graduation, the internship units cannot use their minds and funds, so it is in a temporary practice stage that the talents needed in the era of intelligent manufacturing must be created in the lack of deep and lasting internship. The target of supply and demand disjoins each other.

Existing Curriculum Development Methods have Limitations

Since 1970s, the analysis of task and skill (function) has become the main method to solve the matching between the higher education curriculum and the job requirements, and has formed a mature and rigorous system of organization. In 1970s, the International Labour Organization developed the Modular combination of employment skills (hereinafter referred to as MES), and MES can not only be flexible, but also accurately control every detail in the implementation of the course, and be able to match the work system completely, thus achieving the rules. The purpose of technical personnel is to be trained and trained strictly. Its limitation is that it can only be suitable for developing the professional ability of standardized jobs and establishing the framework of curriculum organization, but it cannot help the ability structure of highly compound talents.
The Current Teaching Methods cannot Keep up with the Teaching needs of the Intelligent Age

The traditional teaching methods of chalk and blackboard are seldom seen. In today's online teaching with the help of computer and Internet, most of them are courseware display and teacher speaking. In the variety of information and teaching methods, students' classroom listening is limited. At present, the teaching classes in Chinese colleges and universities are mostly carried out in the form of big class, which is not conducive to the flexibility and individualization of the small class teaching, but also cannot efficiently complete the academic mechanism of one to one teacher and student exchange and guidance.

Disadvantages of Supervision and Evaluation Mechanism for Current Personnel Training

In the stage of China's higher education from elite education to the development of mass education, the management of students' achievement, teaching and scientific research management, performance evaluation, and the logistics management of teachers and students are common problems in higher education. For example, the reading of students' homework in class is still on the basis of paper edition. At present, only part of the college courses encourage teachers to carry out network homework and review, so the information amount is limited, and the mechanism of personnel training supervision and evaluation which is not conducive to network communication is China's higher education in the age of intelligence. The obstacles to the cultivation of innovative talents.

The Countermeasures for the Training Mode of Innovative Talents in China's Higher Education in the Era of Intelligent Manufacturing

To Build up a Professional Training System under the Long Schooling System, and to Establish the Training Objectives of Advanced Composite and Innovative Intelligent Talents for the Era of Intelligent Manufacturing.

Under the training system of the long school system, the training goal of the advanced composite innovative intelligent talents needed in the age of intelligent manufacturing can meet the needs of the intelligent and intelligent new talents in the age of intelligent manufacturing. In the background of intelligent manufacturing, the demand for talent is not only to emphasize the ability of the hands-on brain, but also not to repeat the curriculum, but to plan the talent training program systematically according to the professional ability standard of the post system of the various disciplines, so that the various stages of the disciplines should not only focus on the training of talent ability, but also build a system. The curriculum system of sex.

Therefore, a wide range of professional settings can foster the needs of intelligent talents with sophisticated technology innovation in the age of intelligent manufacturing. From the perspective of the humanization of professional settings, the workers in the future intelligent manufacturing age will have more leisure time. Therefore, the talent training mode of Chinese higher education in the age of intelligence not only teaches students' basic knowledge and skills, but also teaches students to better cultivate their hobbies and interests in their spare time, and combine the cultivation of higher education with the cultivation of humanistic quality to meet the arrival of the intelligent manufacturing time.

Give Full Play to and Reflect the Existing Curriculum Theoretical Setup and the Function of Continuous Practice Improvement

Under the reform mechanism of practical curriculum, although the training program of higher education talents at the present stage is adjusted every year, it is often carried out in a small range on the basis of the original basis. For example, change the name of the course, increase or decrease the time, adjust the order of the semester, etc. In the face of the age of intelligent manufacturing, full play and embodiment of the existing curriculum theory and continuous practice improvement should be based on the demand of the actual work position, and the curriculum theory setting and continuous
practice improvement should be done based on the content of the curriculum, the job and the needs of talent skills. For example, based on the Internet age, we need to build innovative talents for the intelligent society in the era of big data and digital economy. The establishment of curriculum theory and practical reform in Colleges and universities cannot be achieved overnight, and it is doomed to be a continuous work.

**Continue to Promote and Improve the Construction of a Systematic Curriculum Development System in the Era of Intelligent Manufacturing**

The systematic curriculum development method is suitable for the training of talents in the intelligent era based on task analysis and functional analysis. The system, the method of curriculum design and the carrier of the curriculum are systematically designed in three aspects, which can be based on the integration of the technology and knowledge needed in the age of intelligence based on the decomposition and reconstruction of knowledge, and the changes in the content of the work in the age of intelligence are necessary for the action and the thinking party. The choice of leaps and bounds can be chosen and the mutual learning and improvement of technology and skills can be carried out from the perspective of potential technology and real technology.

**To Explore the Innovation of Teaching Methods and the Development of Diversified Internet Plus "Mode of Learning Resources**

In the era of intelligence, the convenient and advanced Internet provides innovative teaching means for teaching, and the way of acquiring knowledge is diversified. Using mobile Internet technology, we can browse, browse and share learning resources online, making teaching content more colorful. Students can through the virtual digital library and network video sharing, from the elite class around the world, "Internet plus" mode of teaching innovation.

Therefore, no matter whether the age is limited or not, teachers should master a variety of media resources that can display students' characteristics and stimulate students' learning enthusiasm in the age of intelligence, so, as to help students complete their study, answer and homework guidance before, during and after class.

**Promoting Personnel Training Supervision and Quality Management System Based on Big Data Network Platform**

Facing the intelligent training mode of university talents, we should pay attention to improving the efficiency and level of personnel training and management in Colleges and universities. First of all, through the purchase of advanced teaching and management of high-tech software, not only can complete the scheduling tasks of automatic scheduling in various stages, but also can achieve a flexible and rapid implementation of curriculum adjustment, curriculum reform, thus greatly reducing the cost of personnel work. Second, teachers and students through the advanced network and high technology platform. It links domestic and international institutions of higher learning to share educational resources inside and outside school. Third, through the digital platform of the campus, the teachers and students can realize cross dialogue, teaching interaction and course examination professional tutoring, and so on. Administrators can also realize the interaction of mass information through digital office system and mobile client APP for teachers’ daily work management, and save time and space for many parties. It has realized the improvement of the allocation and management of educational resources in Institutions of higher learning.

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