

# Research on Talent Training Innovation Path of Vocational Education under the "Internet +" Background

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**ABSTRACT.** *The "Internet +" concept has provided new opportunities for the talents training of vocational education while also putting forward new challenges for the talents training of vocational schools. Currently, under the "Internet +" background, the talents training of vocational education is still facing many problems, such as unclear training objectives, dated courses teaching content, lagging major setup, single courses system, imperfect talent training system and evaluation mechanism, etc. To solve the above-mentioned problems, it requires to combine the background and characteristics of the times of "Internet +", so as to construct a reasonable and scientific innovation path for the talents training of vocational education.*

**KEYWORDS:** *"Internet+"; Vocational Education; Talent Training; Path; Innovation Research*

## 1. Introduction

In 2015, Premier Li, Keqiang firstly proposed the "Internet +" action plan in the Report on the Work of the Government, in which it pointed out the necessity of promoting the combination of mobile internet, cloud computing, big data, Internet of Things, etc. and modern manufacturing to promote the healthy development of e-commerce, industrial internet and internet finance (ITFIN), so as to guide internet companies to expand international markets.<sup>①</sup> The "Internet+" refers to a new form of 2.0 social development of the information age and knowledge society. It impacts the social production and lifestyles. Under such circumstances, the requirements for talents have been changed unprecedentedly. Meanwhile, new occupations and positions emerge with the transformation and revolution of society and industries, so that some previous positions may decline and even disappear gradually. As industries and positions change, the vocational education has been affected accordingly in every aspect. As a result, the talent training model of vocational education faces many new challenges. Under this background, the talent training

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<sup>①</sup> 30-sentence quick reading of Report on the Work of the Government. China Government Network. 03/05/2015 [Quoted date 03/05/2015]

model of the traditional vocational education will no longer meet the rapid update speed. Therefore, it becomes the priority among priorities for the development of vocational education exploring how to train talents for the vocational education under the "Internet +" background.

## **2 Problems Existing in the Talents Training of Vocational Education under the "Internet +" Background**

As the big data, mobile internet technology, cloud computing and other information technologies develop rapidly, the original talents training model of vocational education has been impacted greatly. Therefore, it needs to change and innovate constantly, and carefully analyzes the current existing problems in order to provide social and economic development with more high-quality compound technical talents.

### ***2.1 Unclear Training Objectives***

The training objectives have stipulated the types, standards and normalization of talent training. The talent training objectives of vocational education play a key role for the talent training of vocational education, and also play an important role for training high-quality talents for vocational education. Currently, the talent training objectives of vocational education lie in equipping personnel with the knowledge and skills needed to meet the requirements of social positions, which means that it trains low-level extensive skilled workers who can only complete simple, mechanical, and repetitive assembly line works. However, under the "Internet +" background, it requires more for workers, who shall be equipped with abilities such as dealing with complex problems, operating intelligent machines, inspecting product security, product marketing and after-sales service, etc., as well as the innovation ability. Under the "Internet +" background, vocational education needs to train forward-looking and compound senior technical talents.

### ***2.2 Dated Course Teaching Content***

A relatively long time will be needed for updating the course teaching content. In the "Internet +" era, the teaching content of many courses is lagged behind the development speed of information technology, resulting in that such a teaching content cannot meet the requirements of corporate positions. Such defects are especially shown in some information and technical majors, such as computer courses, in which the situation is more obvious. The rapid development and changes of these technical courses require the content and technology of the courses to be updated frequently. However, without increasing the class fees and relevant treatment, many teachers in vocational schools are unwilling to spend a lot of time and energy in updating knowledge and learning new skills, so that only dated knowledge can be imparted to students. Even if some teachers are willing to learn, the update speed is relatively slow due to lack of exchange opportunities for learning

and training. Therefore, in the "Internet +" era, it is extremely necessary for improving the quality of talents training of vocational schools improving the update speed of professional courses.

### ***2.3 Lagging Professional settings***

The current major setup of vocational schools cannot keep up with the development speed of the "Internet +" era. The major setup of vocational schools shall advance with the development of the local regional economy. However, the major of many vocational schools are set without combining the requirements for talents of the market. The common situation is that many vocational schools set up whatever majors set by other vocational schools. Moreover, only newly emerging majors will be set, resulting in that majors set by vocational schools cannot meet the requirements for positions in the "Internet +" era. Even though some secondary vocational schools have noticed the characteristics of the "Internet +" era and have added certain majors such as big data analysis, artificial intelligence, etc. However, lacking of higher-level practical technical guidance, the vocational and technical personnel trained in these majors cannot meet the actual job requirement, so that no obvious training effects are achieved. Under such circumstances and the "Internet +" background, the major setup of vocational schools must be scientifically arranged combining with the advanced information technology, so as to increase the training of practical abilities.

### ***2.4 Single Courses System***

The course system of vocational education includes theoretical system and practical system. The theoretical course system focuses on the learning of students' theoretical knowledge, while the practical system focusing on the mastery of students' practical operating skills. In traditional vocational education, students spend a longer time studying in classroom than practicing in the enterprise, resulting in that they lack opportunities for corporate practice. Besides, the teaching content taught by teachers is apart from practice. Students only complete teaching content as required by teachers, resulting in neglecting the training of students' ability in solving practical problems. Although corporate practice is set in some vocational schools, due to the lack of effective management and communication, students dawdle during the practice in corporate, which greatly reduces the actual effect of the cooperation between school and corporate, resulting in that students have not received any real training at all. Another common situation is that vocational education overemphasizes the standardization, so that students' practical skills are trained in accordance with standards, strangling students' innovation ability. In the "Internet +" era, since the intelligent production methods require more on the increasing demand for new-type skilled talents, the courses system of vocational schools needs to be continuously improved.

### ***2.5. Separation of Talent Training System***

A complete and systematic talents training system of vocational education directly determines the training of high-quality vocational and technical talents. However, the current talent training structures of all levels of vocational education are obstructed. It is relatively easy for students from vocational schools to continue the higher vocational education, but the channel is obstructed from higher vocational education to applied undergraduate colleges, and even master and doctoral levels. It is different from foreign vocational education since the foreign vocational education can reach the doctoral level. In the era of "Internet +", as the high technology changes with each passing day, more high-level and highly educated talents are needed for secondary vocational schools to improve the quality of their faculties and improve the quality of talent training.

### ***2.6 Imperfect Training Evaluation***

The training evaluation refers to the assessment and evaluation of educational products and other aspects of the education by certain organizations and academic groups in accordance with certain index systems.<sup>②</sup> The evaluation object generally refers to educational product--talents. At present, students in vocational schools have to obtain corresponding professional qualifications to meet the requirements of the school and the employer. This means that the training objective has been achieved as long as the students obtain the corresponding professional qualifications. However, such a talent training evaluation method can easily cause the disjointness between school training and enterprise employment, causing the phenomenon of "unemployment upon graduation". Therefore, to solve such problems, it needs to reform the talent training model of vocational schools taking the "Internet +" as the background.

## **3 Talents Training Innovation Path of Vocational Education under the "Internet +" Background**

### ***3.1 Clarify the Training Objectives***

With the in-depth integration of internet technology, big data, artificial intelligence and other new information technologies with the processing and manufacturing technologies, the traditional processing and manufacturing technologies have been continuously promoted developing towards intelligence. The previous vocational and technical talents trained can only meet the requirements of the posts, who are only equipped with vocational skills of the posts and cannot meet

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<sup>②</sup>Lei sanyuan. Basic Theory and Construction of Talent Training Model of Vocational Education. Collection of 2014 Excellent Scientific Research Achievements Awarded Papers of China Vocational Association (Volume 2): Secretariat of China Workers Education and Vocational Training Association, 2014 :10.

the requirements for professional talents in the current "Internet +" era. Therefore, under the "Internet +" background, the talent training objectives set by vocational education shall range from "low level" to "high level". Which means that the talents trained by vocational education shall be the compound professional technical talents equipped with certain information technology capabilities, innovative capabilities and problem-solving capabilities. Therefore, firstly, it requires formulating appropriate vocational education talent training objectives in accordance with different industries and enterprises, and job and technical requirements. Secondly, the talents training objectives of vocational education shall be established in "human development", emphasizing the training of students' lifelong learning ability and paying attention to the sustainable development of vocational students.

### ***3.2 Update the Teaching Content***

Under the "Internet +" background, the industrial structure and job requirements of the industry have already changed accordingly. If the teaching content of the traditional vocational schools fails to update in a timely manner, the students trained by the school will not be able to adapt to the development of the times, generating difficulties in employment. First, it requires to change the teaching concepts of teachers in vocational schools, so that they can closely follow the background of the "Internet +" era and break the barriers of the traditional teaching models. Meanwhile, teachers shall be active in accepting new things, try new computer information technology, including online courses, computer simulation technology, VR and other artificial intelligence technologies in order to integrate new information technology with professional teaching content, so as to constantly update the teaching content. Second, teachers in vocational schools shall participate in professional training regularly. And the vocational schools should provide teachers with necessary time and sufficient funds to further their studies, learning professional knowledge in new field, and improving their professional knowledge literacy.

### ***3.3 Rebuild the Professional Courses System***

Professional courses system is an essential core and reform focus of talent training, and also a key factor affecting the quality of talent training. Therefore, under the "Internet +" background, it requires to rebuild the professional courses system for the talents training of vocational education. First, vocational schools should build a professional courses system that is suitable for the characteristics of the "Internet +" era, and open new majors related to artificial intelligence and network information, such as "big data analysis", "artificial intelligence", etc. Second, vocational schools should set up majors to realize the integration of interdisciplinary knowledge and practical technology, reflecting the mutual combination of theoretical knowledge and practical application. Moreover, vocational schools should break the professional barriers in setting professional courses, so that they can provide students with cross-disciplinary and cross-major

knowledge and skills. Meanwhile, in terms of teaching mode, it needs to reflect the "student-centered" to develop the subjectivity of students. Under the "Internet +" background, vocational schools and enterprises can cooperate together to develop and open some online courses adopting a mixed online and offline teaching mode, so as to give full play to the subjectivity of students, enable students to learn actively and constantly update the content of the courses.

### ***3.4 Improve the Talent Training System***

In the "Internet +" era, the operational technical requirements have been reduced accordingly due to the constantly developing intelligent technology. But the technical requirements for product after-sales and sales have been increasing continuously. Vocational schools need to train compound professional technical service talents. Based on the characteristics of the "Internet +" era, it is extremely necessary to build a complete talent training system of vocational education. Vocational education shall open up the talent training channel of "vocational-higher vocational-applied undergraduate-master's and doctoral students" to achieve the connectivity. On the one hand, it needs to take the "Internet +" as the carrier to clarify the talents training objectives at all levels, integrating talents training with the requirements for talent knowledge and ability of various positions in the new technology era to guide the talents training direction and tasks design direction at all levels of educational philosophy. On the other hand, it needs to create opportunities and conditions for students to further to the upper-level study. Under the "Internet +" background, social and economic development and industrial structure changes require more on professional talents. It requires students to be able to continue constant learning. Therefore, it is extremely necessary to formulate favorable policies to encourage more students to study in higher platforms, so as to improve their lifelong learning and continuous learning abilities.

### ***3.5 Reform the Training Evaluation System***

In the "Internet +" era, the industrial institutions in China are experiencing rapid transformation. Reforming the talent training evaluation system of vocational education is required for achieving the high degree of integration between talent training and corporate industry and meeting the requirements for more technical and compound technical talents. Meanwhile, reforming the talent training evaluation system of vocational schools also requires to strong then the participation and evaluation of the enterprise in the industry. Under the "Internet+" background, vocational education shall establish a talent training evaluation system centering on the enterprise industry and supplemented by schools. And the corresponding enterprise industry shall be responsible for formulating the talents training evaluation standards, so that the talents trained by vocational schools can directly meet the requirements of the enterprise in the industry and reflect the professionalism of talent training.

In conclusion, under the "Internet +" background, the talents training of vocational education is a long and arduous process. Therefore, the efficient development path can only be concluded by facing the current existing problems, gathering the strength of all aspects and thinking actively, so that it can create conditions conducive to the talents training of vocational schools and promote the talents training of vocational education.

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