

# *An Analysis of the “One-stop” Construction of Artificial Intelligence in Guangxi Higher Vocational Colleges from the Perspective of “Great Ideological and Political Course”*

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**Keywords:** Big ideological and political course, Guangxi higher vocational colleges, Artificial intelligence, “One-stop” construction

**Abstract:** The “one-stop” construction came into being with the wave of national reform, which conforms to the historical development trend. This paper analyzes the practical dilemma of “one-stop” construction of artificial intelligence in higher vocational colleges in Guangxi. It is pointed out that “the ‘one-stop’ artificial intelligence construction concept of Guangxi higher vocational colleges needs to be strengthened, the integration of artificial intelligence resources is insufficient, and the management ability of artificial intelligence needs to be improved” are the important factors. It puts forward the construction principles of “overall planning, resource integration, unified iterative development, clear departmental responsibilities and cooperation, student-centered, service-oriented, full participation of teachers ” and “ taking artificial intelligence as the guide, strengthening infrastructure construction, integrating resources, building master data management and analysis platform, refining organizational processes, breaking information island barriers, optimizing and improving management systems, and abandoning formalism. ” Innovative ideas and construction ideas such as strengthening the construction of professional team of service platform are worth thinking and learning.

## **1. Introduction**

The “one-stop” construction came into being with the wave of national reform. It not only conforms to the historical development trend, but also shows strong vitality from the date of its emergence. In just a few years, more than 2100 comprehensive “one-stop” service centers have been built throughout the country, and gratifying results have been achieved.<sup>[1]</sup> In November 2015, the General Office of the State Council issued the “Notice on Simplifying and Optimizing Public Service Processes to Facilitate Grassroots People’s Entrepreneurship.” It is clear that all walks of life should simplify and optimize the process to achieve the goal of information sharing and strengthening collaborative capacity building, which puts forward clear requirements for “one-stop” service construction. In the medium and long-term education reform and development plan, the state points out that education informatization should be included in the overall strategy of national

informatization development. Especially in July 2022, after the Ministry of Education and other ten departments issued the work plan to comprehensively promote the construction of “big ideological and political courses” many colleges and universities have successively launched a “one-stop” construction boom for the construction of “big ideological and political courses.” “One-stop” service is mainly to integrate various resources of the school, organize, coordinate, manage, supervise and serve, provide high-quality services for students participation and experience, and lay a solid foundation for the construction of “big ideological and political courses” and the realization of the fundamental goal of moral education. It provides high-quality services in meeting students “needs, enhancing students” experience and participation, and improving work efficiency from the aspects of handling matters, promoting students development, learning, life and mental health. Its essence is service integration and resource integration.

## **2. The Realistic Dilemma of “One-Stop” Construction of Artificial Intelligence in Guangxi Higher Vocational Colleges**

### **2.1. The Concept of “One-Stop” Artificial Intelligence Construction in Guangxi Higher Vocational Colleges Needs to be Strengthened**

In recent years, with the continuous advancement of “big ideological and political courses”, many higher vocational colleges in Guangxi have strengthened the “one-stop” construction of artificial intelligence, involving capital, technology, venues and management. However, what kind of “one-stop” service platform to build, what are the main organizational structure and content, how to build, how to run and manage, and supervise services are all in the exploratory stage. The leadership of higher vocational colleges is not clear about this, and the functional departments and secondary colleges (departments) are not clear. It has not fully achieved the purpose of “one-stop” to solve all students participation and experience. At present, most of the students, league committees and logistics are playing the leading role. Other departments seem to have nothing to do with themselves, and do not really realize the convenience and efficiency brought by “one-stop” artificial intelligence.

### **2.2. The Integration of Artificial Intelligence Resources in “One-stop” Construction of Higher Vocational Colleges in Guangxi is Not Sufficient**

There are many resources in Guangxi higher vocational colleges, with more off-campus and on-campus resources. Off-campus resources include red social practice bases, alumni associations and school-enterprise cooperation units. On-campus resources include various management systems and service software such as educational administration, scientific research, finance, assets, student work and league committees. How to integrate various resources inside and outside the school, integrate and optimize the resources of various departments, majors and systems into “one-stop” resources requires technical support such as artificial intelligence, big data, cloud computing, Internet of Things, and VR. However, at present, most higher vocational colleges have not fully and fully utilized this information technology to apply to the construction of “one-stop” service platform, which leads to scattered resources, fragmentation, and failure to integrate resources well to achieve the goal of maximizing services.

### **2.3. The “One-stop” Construction of Artificial Intelligence Management Ability in Guangxi Higher Vocational Colleges Needs to be Improved**

In the survey, the author found that although some higher vocational colleges have designated

“one-stop” service platform venues, they have also sent special personnel to manage and serve, and adopted A B post system, “ first question responsibility system ”, “ full agency system ” and “ end time limit”.<sup>[1]</sup>To a certain extent, it promotes the process and convenience of “one-stop” services. However, in the specific operation and management, various functional departments and secondary colleges (departments) have not established an effective entry mechanism, such as what content and in what form to enter the “one-stop” service platform. Second, there is no “one-stop” service platform management model, only in accordance with the specific and actual situation of the department to arrange full-time teachers responsible for management, such as “ shift system ”, in the introduction and implementation of the project is only based on the actual situation of the department into the project and operation. Third, in terms of personnel arrangement, it mainly recruits work-study college students on campus, and has not undergone special training in strict artificial intelligence, big data, cloud computing, Internet of Things, VR and other technologies. Most of the student management teams have different levels of business, and have not effectively made full use of core technologies such as artificial intelligence to provide high-quality services for students to participate in and experience. The service attitude and management ability of students to serve students need to be improved.

### **3. The Path and Countermeasures of “One-stop” Construction of Artificial Intelligence in Guangxi Higher Vocational Colleges**

The “one-stop” construction of artificial intelligence in Guangxi higher vocational colleges mainly uses new technologies such as Internet of Things, cloud computing, big data analysis, artificial intelligence, and VR as the core technology to build a service system and provide high-quality services for teachers and students. With the continuous emergence of this core technology, the “one-stop” construction has gradually shifted to the direction of intelligence and intelligence. It provides a comprehensive perception of the environment, intelligent, data-based, networked, collaborative and integrated teaching, scientific research, management and life services, and provides insight and prediction of education and teaching, education management, which not only promotes the convenience of system services, but also improves management efficiency and level.<sup>[2]</sup>The author believes that the “one-stop” construction of artificial intelligence in Guangxi higher vocational colleges should be considered from the following aspects.

#### **3.1. The Basic Principles of Building Artificial Intelligence “One-stop” Service Platform Construction**

##### **3.1.1. Adhere to the School as a Whole, Resource Integration, Unified Iterative Development Principles**

The construction of artificial intelligence “one-stop” service platform must be strictly and uniformly planned. The designated departments of the school should coordinate the overall situation, fully consider the service contents and forms of organization, policy norms, management mechanism and system integration, including venue construction, fund guarantee, overall “one-stop” organizational structure, management system and supervision guarantee service system, etc. From demand research to detailed design, it is necessary to strictly control, and at the same time integrate various resources of the school, integrate various resources such as school work, league committee, educational administration, scientific research, assets, finance, employment, personnel management system and book system, aggregate payment system, examination and competition management system, office automation and professional construction of secondary colleges (departments), formulate the most appropriate implementation plan, and give full play to the technical support role

of artificial intelligence. According to the service management departments and types, unified planning and formulation of normative documents such as operation manuals, not only consider the current construction needs, but also consider the future “online” and “offline” integration needs. We attach importance to the iterative development of software such as artificial intelligence, formulate long-term development plans for service platforms, and achieve sustainable development. This will not only fully avoid duplication of construction, save costs, share and share, but also reduce the short-term financial pressure of schools and achieve the purpose of maximizing the use of resources.

### **3.1.2. Adhere to the Principle of Clear Departmental Responsibilities and Cooperation**

The “one-stop” service platform of artificial intelligence integrates various resources of the school and provides good conditions for students to participate in and experience learning and life. However, in the face of complicated and arduous system management, it is necessary to clarify the work responsibilities of each participating department, refine such as “on-duty” and time-limited updates, and ensure the normal operation of the rules and regulations. The school always adheres to the purpose of personalized service, so that teachers and students can “only enter one door” and “run once at most” in the participation and experience, and truly realize “one-stop” service. According to Conway’s law, the organizational structure determines the system architecture.<sup>[3]</sup>Therefore, it is necessary to set up a multi-department participation construction team to assist the “one-stop” information development of the whole school. The business departments of the school are responsible for the demand analysis and service process leading work. The information department uses artificial intelligence to provide technical support, and provides customized, intelligent and high-experience services through big data, mobile apps, WeChat applets, etc. Professional software units are responsible for the implementation of landing, and various functional departments coordinate with each other. Therefore, higher vocational colleges in Guangxi should integrate the education resources inside and outside the school, clearly divide the rights and responsibilities of departments, departments and communities, gather the advantageous resources inside and outside the school into the “one-stop” platform construction, and build a three-dimensional education pattern with the platform as the carrier.<sup>[4]</sup>

### **3.1.3. Adhere to the Student-centered, Service-oriented, Full Participation of Teachers, in Order to Build a “Big Ideological and Political Course” Lide Tree People as the Fundamental Purpose**

The “one-stop” service of artificial intelligence must be student-centered, not department-centered. It adheres to the individualized development of students. No matter how to adjust, it must take serving teachers and students as the starting point, attach importance to the service experience and participation of teachers and students, and never forget the original intention of “one-stop” service, keeping in mind the mission of teachers and students’ satisfaction. Insisting on service-oriented and full participation of teachers, regardless of how the service process and service awareness are upgraded, teachers should play a leading role in the “one-stop” service platform, and truly cultivate the application-oriented high-quality talents with “craftsman spirit” and “moral and technical training” through students’ experience and participation.

## **3.2. Construction of Artificial Intelligence “One-stop” Service Platform Construction Ideas**

The construction of artificial intelligence “one-stop” service platform should be based on the basic idea of “data exchange-data governance-data openness-data application”, which requires:

### **3.2.1. With Artificial Intelligence as the Guide, Strengthen Infrastructure Construction, Integrate Resources, and Build a Master Data Management and Analysis Platform**

First of all, with artificial intelligence as the guide, strengthen infrastructure construction. To achieve full coverage, data information sharing and visualization, “one-stop” services must be supported by new technologies such as big data technology, cloud technology, Internet of Things, blockchain, artificial intelligence, web3.0, mobile technology, and 5G. This requires that when strengthening infrastructure construction, we must unify planning and design, scientifically build basic network business systems, including campus network coverage, super-integration, fortress machines, virtualization, and firewalls. At the same time, we will build an organizational framework in terms of venues, financial security, operation management, supervision and services, so as to lay a solid foundation for the construction of a “one-stop” service platform. Artificial intelligence provides technical support in global data asset management capabilities, strengthening data exchange stability, reliability and timeliness, improving data center credibility, establishing data interface, service-oriented conversion capabilities, and third-party business systems. Secondly, integrate resources and build a master data management and analysis platform.

The “one-stop” service must integrate resources, integrate and integrate the business data of the information platform closely related to teachers and students, such as personnel, finance, scientific research, educational administration, student work, youth league committee, etc., provide personal card data services for teachers and students, and solve the problem of inconsistent information filling in various data. Practice the information construction concept of “more data running, less teachers and students running, ” establish online service, solve the specific problems of teachers and students “work and life, and effectively improve teachers and students ” sense of acquisition of information. <sup>[5]</sup>It is located on all kinds of business systems. It is the window of digital campus. It provides users with all kinds of information of digital campus by means of multi-terminal access, effectively integrates the existing application system of the school, and is more like the perfect integration of school information portal and online service hall. It integrates and integrates the data of various business systems in the school, adopts a canvas-like operation interface, establishes a comprehensive, intuitive and friendly “management cockpit”, displays various business indicators of the school, and realizes data-based decision support.

In the construction of master data management and data analysis platform, we must provide flexible and diverse services, including online and offline service matters, handling forms, handling departments, handling locations ( reflected in the form of maps ), handling time, receiving calls, required materials, common problems, etc. The specific service types mainly include: information query type, data analysis type, work flow type, and self-service type.

### **3.2.2. Refine the Organizational Process and Break the Barriers of Information Islands**

Refining the organizational process and breaking down the barriers of information silos is an important organizational form for building a "one-stop" service platform of artificial intelligence.<sup>[1]</sup>Some higher vocational colleges in Guangxi currently have problems such as information islands, network security threats, low administrative efficiency, repeated entry of various business systems, inconsistent standards, and insufficient information resource sharing. Teachers and students need to go to multiple departments to obtain various cross-departmental services, which cannot reflect the concept of information sharing. <sup>[6]</sup>The construction of “one-stop” service platform must require the refinement of organizational processes, the removal of information island barriers limited to technology and interests, and the re-sorting and classification of service content for teachers and students scattered in various systems. Comprehensive presentation provides teachers and students with full-cycle, practical and convenient information



services. To achieve a window acceptance, a form to inform, a process approval, one-time pick-up service, simplify the process, clear division of labor, responsibility to people, one person to accept, internal operation, improve efficiency. Through service standardization, the service application is moved forward, and finally the back and forth in the process of doing things is reduced. Today, with the rapid development of information technology, information sharing platform is effectively established through information technology, virtual platform is established in the cloud, data center is established in various departments, power and obligation are clarified, database restrictions are broken, problems such as independence and data redundancy of various systems are completely solved, so as to support the improvement of service efficiency and management level, and better meet the needs of school business and teachers and students.

### **3.2.3. Optimize and Improve the Management System, and Resolutely Abandon all Kinds of Formalism**

Some higher vocational colleges “one-stop service pays more attention to students” learning, life, employment, psychological problems and so on, and also truly achieves student-centered and service-oriented. However, the system of regular training, performance evaluation and personnel management of staff still needs to be optimized and improved, which to a certain extent causes formalism and affects the enthusiasm of staff. Therefore, we must take the system guarantee as the premise, establish a good performance evaluation and incentive mechanism, and mobilize the enthusiasm of the management team, so as to fundamentally ensure the continuous development of “one-stop” services.

### **3.2.4. Strengthen the “One-stop” Service Platform Team Building**

At present, most of the “one-stop” service work teams in Guangxi higher vocational colleges come from work-study students, and teachers mainly participate in limited participation in design and project planning. In order to improve service quality and efficiency, it is necessary to obtain relevant qualifications through strict training in schools in order to become a “one-stop” service platform staff. Guangxi higher vocational colleges must strengthen the construction of incentive mechanism, and set up service teams through competition for posts, regular training, performance appraisal and other forms. This is not only in line with the fundamental purpose of “people-oriented” and moral education in higher vocational colleges, but also in line with the modernization of governance system and governance capacity and the establishment of service-oriented higher vocational colleges and other administrative management system reform.

## **4. Conclusion**

The “one-stop” construction of artificial intelligence in Guangxi higher vocational colleges has a long way to go. The construction of service platform, the full use of artificial intelligence technology, the optimization of service process, the transformation of institutional functions, the allocation of full-time personnel and other work need to be adjusted and optimized step by step. From the perspective of “big ideological and political courses ” higher vocational colleges should make full use of artificial intelligence technology according to their own school-running conditions, build a “one-stop” service platform suitable for their own schools, improve the efficiency of work and the modernization of governance ability, and effectively realize the fundamental goal of cultivating morality and cultivating people.

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