



# Study on Strategies for Local University Libraries to Support Digital Economy Talent Development

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**Abstract.** This article conducts an in-depth analysis of the challenges faced by university libraries in serving the talent cultivation of the digital economy, and proposes corresponding countermeasures and suggestions. Research has found that libraries have deficiencies in funding, digital resource copyright, service model innovation, and information literacy education. To address these challenges, the article suggests increasing investment in talent teams and digital construction, improving copyright management systems, promoting service model innovation, and building a comprehensive information literacy education system. Through these measures, libraries will be able to more effectively support the cultivation of digital economy talents and promote the healthy development of the digital economy.

**Keywords:** universities; library; Digital economy; personnel training

## 1 Introduction

With the rapid development of information technology, the digital economy is playing an increasingly important role on a global scale. The digital economy is a new economic form that uses digital knowledge and information as key production factors, digital technology innovation as the core driving force, and modern information networks as important carriers. Through the deep integration of digital technology and the real economy, it continuously improves the digitalization and intelligence level of traditional industries, accelerates the reconstruction of economic development and government governance models. As a gathering place for knowledge, university libraries have abundant literature resources and professional talents, which can provide strong knowledge support for the development of the digital economy. The Chinese government has clearly proposed to enhance the competitiveness of the digital economy, promoting both the digital transformation of traditional industries and the development of digital industries. Developing the digital economy not only requires capital investment, but also a large number of professional and technical talents, which requires the role of universities to be leveraged. University libraries can play an important role in the process of cultivating digital economy talents. This article combines existing literature to sort out the role of university libraries in serving the culti-

vation of digital economy talents, explore the ways in which university libraries serve the cultivation of digital economy talents, analyze the influencing factors that restrict the role of libraries, and propose corresponding countermeasures and suggestions.

## 2 Literature Review

The role of university libraries in the digital economy era is undergoing significant changes, and their functions are no longer limited to traditional paper book storage and borrowing, but have expanded to innovation in the acquisition, management, and service of digital resources. University libraries play a crucial role in cultivating talents for the digital economy. The following is a summary of how university libraries can help cultivate digital economy talents:

### 2.1 In Terms of Digital Resource Management

University libraries are instrumental in fostering digital economy talents by offering a wealth of digital resources, including books, journals, and databases. They've improved the management of these resources, enabling efficient research and learning, as advocated by Zharinov (2020), who highlights the importance of Research Information Systems (CRIS) for managing research data. There's a growing focus on data security, necessitating libraries to develop comprehensive policies and services<sup>[1]</sup>.

Information literacy is crucial in the digital era, and libraries offer training to enhance students' abilities to handle information effectively. Zhuang (2019)<sup>[2]</sup> and others suggest libraries should address the digital divide and cater to diverse user needs. Strategies for advancing digital literacy in libraries include strengthening theoretical research and educational content, as proposed by Deng<sup>[3]</sup>, Du, and Sun (2023)<sup>[4]</sup>.

In the digital economy, libraries must leverage information technology for service innovation, redefining their roles and content. Cheng (2020)<sup>[5]</sup> and Liu et al. (2021)<sup>[6]</sup> suggest establishing technology consulting mechanisms and using blockchain for service upgrades. Zhang et al. (2022)<sup>[7]</sup> emphasize the need to focus on user value and intellectual capital enhancement in library services.

Despite these efforts, libraries face challenges in resource acquisition, information literacy cultivation, and service improvement. Further research and practice are needed to help libraries meet the demands of the digital economy and support the development of digital talents more effectively.

### 2.2 Digital Economy Talent Development: Integrating Innovation and Education

The development of the digital economy has brought unprecedented opportunities and challenges for personnel training. Surova (2022)<sup>[8]</sup> suggests that the federal project "Personnel for the Digital Economy" aims to train a new generation of personnel capable of adapting to the needs of the digital economy, which requires the education system to keep pace with technological advancements. Grabozdin et al. (2022)

<sup>[9]</sup>further emphasize the growing demand for personnel with economic security knowledge in the context of the digital economy; these personnel must not only master digital technology but also be able to assess and manage related risks. Stoffel's (2010) <sup>[10]</sup>research, while focused on library technology, also reveals how educational institutions can stimulate students' interest and skills through the introduction of new technologies, which is crucial for their future success in the digital economy. Overall, these studies indicate that to succeed in the digital economy, personnel training must be closely integrated with technological innovation, with a focus on education in economic security and emerging technologies.

### **3 Demand for Digital Economy Talents and the Role of Libraries**

The demand for digital economy talents in society is currently very high. With the rapid development of digital and Internet technology, digital economy has become an important economic growth point in many countries and regions. Digital economy talents refer to individuals with digital skills and relevant knowledge who are able to conduct business in a digital environment and apply data analysis and innovative technologies to promote enterprise development. Enterprises and organizations need digital economy talents to develop and manage digital products and services, process and analyze big data, conduct marketing, business data analysis, and online sales, build and maintain information systems, and protect network security. With the rapid development of the digital economy, the demand for digital economy talents in enterprises is constantly increasing. Many companies are actively recruiting and cultivating digital economy talents to meet the needs of digital transformation. The government is also promoting digital transformation, with many services being switched to online, requiring a large number of digital economy talents.

In order to adapt to the development of the digital economy and meet the talent needs of enterprises and institutions, major universities are also increasing their efforts to cultivate digital economy talents, offering undergraduate and graduate majors in digital economy, and promoting the development of the digital economy. With the continuous development of the digital economy, the role of university libraries in the digital economy is becoming increasingly prominent. On the one hand, university libraries can meet users' needs for knowledge and information in the digital economy by providing digital services such as e-books, online databases, etc; On the other hand, university libraries can also help users improve their participation and innovation abilities in the digital economy by conducting information literacy education and providing research support.

## **4 Challenges of University Libraries Serving the Cultivation of Digital Economy Talents**

Although university libraries have great potential in serving the talent cultivation of the digital economy, they also face some challenges, such as insufficient investment in digital construction, copyright issues of digital resources, and insufficient innovation in service models.

### **4.1 Insufficient Investment by University Libraries in Serving the Cultivation of Digital Economy Talents**

The problem of insufficient investment mainly manifests in the following three aspects: (1) Insufficient investment in talent team construction. Libraries need to recruit and cultivate talents with digital skills and professional knowledge to meet the needs of digital resource construction and services. However, due to staffing and funding limitations, university libraries face difficulties in recruiting highly educated and skilled professionals. (2) Insufficient investment in digital resource construction and services. With the development of information technology, digital resource construction and services have become an important component of library work. However, university libraries may face insufficient funding in the procurement, integration, maintenance, and provision of digital resources, which affects the quality and availability of digital resources, and thus affects the effectiveness of digital economy talent cultivation. (3) Insufficient investment in educational digital transformation: Educational digital transformation is the key to promoting high-quality development of university libraries, but this transformation requires corresponding technical support and financial investment. University libraries may lack sufficient resources to update technological facilities, develop digital service tools and platforms, and train librarians to use these new tools, thereby affecting the library's ability and effectiveness in the digital transformation of education.

### **4.2 Copyright Concerns over Digital Resources**

In the digital economy, university libraries must digitize and blend paper with digital resources, facing copyright challenges like authorization limits, high costs, and DRM restrictions. Strict use conditions from providers can hinder resource access for talent development, while expensive copyright fees may exceed library budgets. DRM can impede teaching and research flexibility, and user copyright awareness is low, increasing infringement risks. With heightened IP protection, libraries and universities risk substantial liabilities in lawsuits, necessitating professional copyright management and user education.

### **4.3 Insufficient Innovation Motivation for Library Service Models**

University libraries confront a lack of motivation for innovative service models in digital economy talent cultivation. Traditional service thinking hinders adaptation to digital economy demands and the integration of new technologies. Limited funds and resources impede technological innovation and service upgrades, affecting model innovation. The rigid organizational structure and management system, coupled with inadequate incentives, diminish librarian creativity in developing new service models, thus struggling to meet diverse talent needs. Additionally, libraries fall short in comprehensively providing information literacy education. Content updates lag behind the digital economy's growth, making it challenging for students to handle complex information and use digital tools effectively. The education's format is too passive, lacking interactivity and practicality, which reduces its effectiveness. Without tight integration with professional courses, students find it hard to apply their knowledge, impacting the quality of talent cultivation. These issues highlight the urgent need for libraries to update content, diversify teaching methods, and deepen course integration.

## **5 Research on Countermeasures for University Libraries to Serve the Cultivation of Digital Economy Talents**

### **5.1 Strengthen the Funding and Technological Investment in Talent Pool and Digital Construction**

In order to effectively address the issue of insufficient investment in talent cultivation for the digital economy in university libraries, libraries should adopt a multi-channel strategy to enhance funding and technical support. Firstly, the library needs to actively seek more financial budget from the school management and clearly demonstrate the importance of digital construction for talent cultivation. At the same time, the library can explore establishing cooperative relationships with external institutions such as enterprises and foundations, and strive for sponsorship and project funding. In terms of talent team building, libraries should develop long-term talent training plans, provide special training funds, regularly organize digital skills and professional knowledge training, and enhance the digital service capabilities of existing employees. In addition, libraries should invest in advanced information technology equipment, including cloud computing, big data analysis tools, etc., to enhance the management and utilization efficiency of digital resources, ensuring the modernization and efficiency of library services.

### **5.2 Building a Comprehensive Digital Resource Copyright Management Framework**

Regarding the copyright issues of digital resources, university libraries should establish a comprehensive copyright management framework. This includes establishing a copyright management team composed of legal experts, librarians, and technicians, responsible for formulating copyright policies, reviewing copyright contracts, and

handling copyright disputes. Libraries should have in-depth communication with digital resource providers to strive for more reasonable authorization terms and price discounts, while exploring the utilization of open access resources and reducing copyright restrictions. In addition, the library needs to carry out systematic copyright education activities, such as workshops and online courses, to enhance teachers' and students' awareness and compliance with copyright regulations. Through these measures, libraries can protect copyright while maximizing the effective utilization of digital resources and meeting the needs of talent cultivation.

### **5.3 Promote Innovation in Library Service Models and Enhance Innovation Momentum**

In order to address the issue of insufficient motivation for innovation in library service models, university libraries need to promote innovation from multiple perspectives. Firstly, the leadership of the library should establish an innovative mindset, formulate clear service innovation goals and plans, and encourage all librarians to actively participate in innovative practices. Secondly, libraries should establish innovation funds and innovation project application mechanisms to provide financial support and policy guarantees for potential innovation projects. At the same time, libraries should reform their internal management system, establish flexible team structures and incentive mechanisms, encourage cross departmental collaboration among librarians, and share innovative achievements. In addition, libraries can continuously optimize service processes through user feedback and demand research, introduce new technologies such as artificial intelligence and virtual reality, and enhance the personalization and intelligence level of services.

### **5.4 Deepen Information Literacy Education and Improve the Quality of Talent Cultivation**

University libraries should deepen information literacy education to enhance the quality of digital economy talent cultivation. The library needs to develop an information literacy education system that matches the characteristics of the digital economy, covering multiple aspects such as data analysis, digital tool application, and information ethics. In terms of educational content, libraries should regularly update course materials to ensure the forefront and practicality of teaching content. In terms of educational format, libraries can adopt a combination of online and offline methods to carry out interactive teaching activities such as case studies, simulated practices, and group discussions, in order to enhance students' participation and practical abilities. In addition, libraries should cooperate with departments to closely integrate information literacy education with professional courses, and help students apply information literacy to professional learning and research through embedded teaching and other methods, so as to better adapt to the requirements of the digital economy era.

## 6 Conclusion

In summary, university libraries play an indispensable role in the cultivation of digital economy talents. Faced with challenges such as insufficient investment, copyright issues, lack of innovation drive, and incomplete information literacy education, libraries need to take proactive measures, including increasing funding and technological investment, building a copyright management framework, promoting service model innovation, and deepening information literacy education. Through these measures, libraries can better serve the cultivation of digital economy talents and contribute wisdom and strength to the sustainable development of China's digital economy. In the future, university libraries should continue to explore and innovate, continuously improve their service capabilities, and help cultivate more high-quality digital economy talents.

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