

# A Brief Discussion on the Development of Financial Discipline and the Transformation of Digital Education under the Background of Financial Technology

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**Abstract:** The People’s Bank of China “financial science and technology development planning (2022-2025)” to “improve the innovation ability, quality, effectiveness, contribution oriented talent training system”, “China financial science and technology personnel training and development questionnaire survey (2021)” shows 96.8% of surveyed institutions surveyed financial science and technology talent gap, financial technology put forward serious challenges to financial digital education. This requires us to re-examine the education system, whether the positioning of talent training, digital competence of teachers, digital education practice scenes, digital transformation supporting teaching materials and students’ digital awareness can cope with the technological reform of the financial market, and the financial education ecology needs to be reshaped.

**Keywords:** Fintech; Transformation of digital education; Development of finance discipline; And talent training

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## 1. Literature review

### 1.1 The financial discipline will change from “informatization” to “digital” and then to “digital intelligence”

Finance is a second-level discipline under applied economics, which always belongs to economics and is the branch of humanities and social sciences, while the development direction of social science subjects often tends to be consistent with the development of society<sup>[1]</sup>. If 2017 is the first year of fintech, Since the 1970s, Fintech, through financial electronization, financial informatization and Internet finance, Officially launched the fintech era in 2017, With big data, cloud computing, artificial intelligence, blockchain and other technology output as the core business of enterprises are constantly emerging and rapidly accumulating market value, Thus, the financial market is divided into three sectors: first, starting from the traditional financial industry, Changes in the business and organizational structure, To promote the enterprise to speed and efficiency; Second, starting from technology companies, Using the existing technology, Develop a new platform, To combine technology with finance, Form the industry solution of<sup>[2]</sup>. According to the 2022 Fintech Industry Research Report, in 2021, the total investment in information technology by banks, insurance and securities firms exceeded 300 billion yuan, up more than 10% year on year. In the face of such a booming market, the effective financial supervision of fintech and technology financial market entities constitutes the third largest sector. How to cultivate industry talents for these three sectors, how to carry out the transformation of education, to the “digital” and “intelligent” transformation should be an inevitable trend<sup>[3]</sup>.

### 1.2 The key to the transformation of digital education is to promote the transformation of education

## **from empirical analysis to data computing**

In August 2021, the Ministry of Education agreed to Shanghai as education digital transformation pilot, 2022 the Ministry of Education work points in the strategy of education digital action, the same year national wisdom education public service platform, 2023 world conference on digital education, education digital transformation has been in the connotation into the road, environment resources, classroom teaching, evaluation of governance, etc. Quality education advocates “respecting individuals and promoting individuality”, which requires that educational methods, teaching modes and evaluation methods should be “personalized and refined”<sup>[4]</sup>. However, it is often difficult to quantify the process of education by shaping value, shifting accomplishment, imparting knowledge, continuous diagnosis and reform until the foundation of students’ life growth. The cost and deviation of empirical analysis cannot support the implementation of quality-oriented education concept, and education quality and efficiency are always contradictory<sup>[5]</sup>. However, under the background of digital education transformation, education scenarios, educational subjects and teaching services are computable, that is, the education is theoretically computable. The premise is that the components of any segment of the large field of education can be digitized, and there are data exchange interfaces and standards between each segment, forming a wide coverage, fine-grained and full online liquidity data<sup>[6]</sup>. The laws and characteristics of the educational process can be reproduced by digitization, and the scientific nature of the educational theory can be tested to a certain extent. The systematic and structural change in education will shift from empirical analysis-based to data-based calculation to realize the transformation of elements, structures and relationships. Based on the above research, this paper further studies the impact and challenge of the development of digital technology on the development of the direction of finance and the talent training program under the background of fintech, and puts forward suggestions.

## **2. Research problem**

### **2.1 Talent training positioning compound challenges**

Corresponding to the map of the fintech market, the financial discipline is faced with the challenge of cultivating compound talents who understand both finance and new technology. Combined with the career orientation, educational level, college characteristics and regional economy of the fintech industry, this challenge has more concrete problems such as career orientation and educational requirements. There are three types of talent demands in the fintech market: first, fintech compound talents who “understand finance and technology”. Practitioners are required to use technology to make financial innovation, cultivate the knowledge, ability and literacy around the application of fintech scenarios, and be engaged in product manager, data analyst, user operation, system operation, fintech analyst, financial customer service and other positions. Second, “understand technology and finance” science and technology finance compound talents. Practitioners are required to serve traditional financial departments or fintech enterprises and institutions, engaged in data modeler, blockchain application development engineer, big data development engineer, artificial intelligence algorithm engineer, fintech operation and maintenance and other positions. Third, regulatory talents who “understand law, finance and technology”. Practitioners are required to effectively supervise the fintech, technology finalization market entities and the innovative operation of fintech business. However, there are practical difficulties in traditional finance majors, such as lack of digital competence of teachers, imbalance of digital transformation of talent training programs, and lack of financial digital teaching and practice scenes, so there are challenges in how to plan and implement the training orientation of compound talents.

### **2.2 Digital competency challenge of teaching faculty**

The implementation of the digital transformation of finance education needs the promotion of digital soft power, which is reflected in the digital competence of teaching teachers. There are some problems in traditional finance teaching teachers, such as lack of engineering background, shortage of “double-qualified” teachers, lagging awareness of professional innovation, weak digital awareness, and lack of retraining after digital teaching ability.

### **2.3 Digital education practice scene construction challenge**

The core competitiveness of compound talents is that they can realize their financial demand through information technology. Traditional economic and financial professional teaching has rich experience and theoretical advantages, but limited by school capital and site, many university financial professional practice scenario is not complete, the big data, cloud computing, artificial intelligence, block chain financial cultivation of the ability of science and technology lack of experience, lack of practice incubation, not conducive to students compound accomplishment.

## **3. Research solutions**

### **3.1 Dig the characteristics of colleges and universities and explore the positioning of differentiated compound talents**

Taking Chongqing Normal University as an example, it is rooted in the characteristics of normal universities and explores the training orientation of cultivating compound talents in marketing and ethics. Digital dividends and risks coexist, dig normal colleges education endowment advantage, promote financial engineering construction in the digital transformation of financial science and technology curriculum system, at the same time to strengthen the student moral ethics, education psychological literacy training, expand students' professional course, form "financial + technology + ethics + education" compound talent training orientation.

### **3.2 "Four steps progressive" revision of the fintech talent training program, the construction of the teaching material system**

According to the step type of human capital development, explore the "four steps progressive" talent training plan revision strategy, and form the talent training stage goal and supporting curriculum system of "fintech enlightenment-fintech integration-fintech application-fintech innovation". At the same time, teachers are organized to build a series of fintech textbooks with the help of school teaching and research resources and virtual teaching and research system.

### **3.3 Multi-dimensional evaluation system activates students' digital consciousness**

Under the impact of big data and financial science and technology, the matrix teaching platform, flexible, dynamic acquisition students academic progress and personal innovation ability information, satisfy the "specialist" to "general" transformation training requirements, established by the basic knowledge, practical ability, answer result, innovative thinking of multi-dimensional, comprehensive evaluation system, activate the students 'digital consciousness, cultivate students' digital literacy.

## **4. Conclusion**

The core of exploring the development of fintech and the digital transformation of financial discipline education is to explore the differentiated talent training track, deal with the relationship between the collaborative development of good people and science and technology, improve their digital literacy and the collaborative competence of science and technology, return to the simple attribute and root value of education, and never forget the original intention of educating people. It is the feasible development direction and transformation strategy of financial discipline to adhere to the content-oriented quality consciousness and quality thinking of using digital technology, creatively transform the learning mode of students and innovatively develop the classroom teaching mode with intelligent technology under the background of financial technology.

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