Study on Building General Education Courses in Blockchain Technology Based on the “New Business” Concept

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Abstract. The training of business talents under the “New Business” Concept emphasizes the integration with modern new technologies. Blockchain is of great significance to the financial industry and will bring big changes in the finance industry in which talent training and education are of the most important links. Therefore, the authors deem it necessary to offer general courses on blockchain. The general education courses will use inclusive teaching content, speculative teaching methods, a diversified teaching team and a debate-based assessment method to mobilize students' abilities and interests and to train business students' mindset with forefront Internet and blockchain technology.

1. Introduction

New business is a concept proposed due to the needs of the development of the digital economy. It is a comprehensive discipline that reorganizes and crosses traditional business subjects and integrates modern new technologies. As an emerging revolutionary technology in the post-Internet era, blockchain is leading a new round of technological and industrial transformations globally. The development of blockchain technology has risen to the level of national strategy. The Ministry of Education issued the "Action Plan for Blockchain Technology Innovation in Higher Education Institutions" in April 2020 which proposes to build a batch of blockchain technology innovation bases in colleges and universities by 2025, to cultivate and gather a batch of blockchain technology research teams, and to promote several universities to become the country's blockchain technology innovation fronts. A large number of universities are providing research outcomes as momentum for the industrial development[1].

The implementation of blockchain technology needs to be applied to other industries. As an important area of blockchain application, the finance industry has brought huge changes to business models. Under digital transformation, enterprises urgently need versatile talents who can adapt to technology and business development. Thus offering blockchain courses in business programs is to meet the needs of the times.

Under the “New Business” Concept, talent training should provide comprehensive interdisciplinary education, and the offering of general education courses on blockchain technology is not to train professionals in this field, but to cross, collide, penetrate and integrate business and new technologies, to expand students' imagination, to cultivate students' ability to think independently and to integrate existing knowledge, to enhance students' professional and scientific research ability, and to speed up the dissemination, popularization and talent reserve process of blockchain technology.
2. Status Quo of Courses in Blockchain Technology

Although blockchain is one of the key areas of talent training in universities, there is still a lack of blockchain courses in Chinese universities. There is no planned and systematic training of blockchain talents.

At present, only Chengdu University of Information Technology has offered a program called "Blockchain Engineering", and Cohort 2020 is the first year of enrollment. In the program there are four modules: basic computer science courses, basic courses in blockchain core technology, courses for majors in blockchain, and application courses in Blockchain industry. The curriculum mainly focuses on the underlying technology of blockchain, the blockchain architecture and industry application development, supplemented by application courses in areas such as finance, supply chain management, public services, medical care, education and employment, etc[2].

Only about 33 other domestic universities have offered blockchain-related elective courses or laboratories. The main courses include: "Blockchain Principles and Applications", "Blockchain and Digital Assets", "Blockchain Technology Principles and Development Practice", "Blockchain and Innovation and Entrepreneurship", etc. Most courses focus on the principles of blockchain, blockchain technology, blockchain applications, and relatively few courses are offered from the perspective of combination of blockchain and the program itself. Even fewer general education courses are included in the general education module with the aim of spread the knowledge. Although Huobi University (an industry-based educational organization focusing on blockchain) has offered blockchain courses on the Internet as knowledge popularization and public welfare, the contents are still technology-oriented. The impact on promoting blockchain technology and cultivating students’ interests to understand blockchain is not enough.

In terms of popularizing blockchain knowledge in prestigious universities abroad, according to the “Report of Global Blockchain Education Leaders” released by Coinbase, in 2019 56% of the world’s top universities offered at least one course on cryptocurrency or blockchain for undergraduates, postgraduates and doctoral students majoring in computer software, finance, business, sociology and even anthropology and medicine.

3. Necessity of Offering General Education Courses in Blockchain for Business Students

3.1. To Cultivate Versatile Talents with Mindset in Blockchain

In the digital age, blockchain, as an emerging technology, has been continuously mentioned in national policy documents and has become an industry strongly supported by the government. Since 2019, the Central Committee of the Communist Party of China, the State Council and local governments have successively issued documents to put blockchain as a nationally and regionally important technology and industry for economic development. The CCID Blockchain Research Institute of the Ministry of Industry and Information Technology pointed out in the "Current Situation and Prospects of China's Blockchain Development in the First Half of 2019" that the finance sector is the area with most frequent applications of blockchain technology and the greatest demand, and that in 2019, the implementation of blockchain in financial service including supply chain financial application, asset management, cross-border payment and cross-border trade has shown initial results[3]. The digital transformation of enterprises has become an inevitable trend. Data has been ubiquitously penetrated into various fields of business management. What companies need is no longer a simple engineer, but a versatile talent who can combine technology and business and who can build a bridge between technology and management. To offer blockchain courses for business students is to meet the needs of the times to cultivate talents who understand blockchain and economy with a mindset in Internet and blockchain.
3.2. To Lower the Barriers of Entry for Business Blockchain Courses

Blockchain education in China is in its infancy stage, lacking an authoritative theoretical system, textbooks, and professional teachers. Many universities do not have the ability to offer blockchain courses as a major. Therefore, blockchain general education courses can be used as the supplement to reduce entry barriers and increase the popularity of business courses, so that colleges and universities can keep up with the trend, and lay the foundation for future innovation in courses, combining blockchain with business, accounting, and emerging technologies to empower business education and teaching.

3.3. To Deepen the Integration of Industry and Education and Expand the Teaching Team

Blockchain is relatively new technology with low historical precipitation and shortage of teachers. The contents of general education courses on blockchain can focus on the practicality of knowledge and the relationship between the practicality of knowledge and intersection and integration with business, using blockchain financial service application cases as teaching and experimental training materials, hiring corporate officers as part-time teachers, cooperating with companies to promote the integration of industry and education.

3.4. To Popularize Blockchain Technology for Business Teachers and Students

Blockchain technology has entered into many areas of our lives. The new technology of 5G+blockchain is empowering a new era. The emergence of Bitcoin and the combination of digitalization and finance will lead the new development of the financial industry. In 2020, the People's Bank of China officially released the "Safety Regulations on Financial Distributed Ledger Technology" which is known as the first blockchain standard in the domestic financial industry. The central bank's digital currency DCEP is about to land, which will have a significant impact on China and the global economy. Therefore, in this digital age, we will face unprecedented opportunities and challenges. Offering blockchain general education courses can help with the popularization of knowledge, rise students' awareness of blockchain, guide their interests in career planning, and cultivate versatile talents of interdisciplinary knowledge so as to seize the opportunity in the rapid development of this emerging industry.

4. Strategy of Building Blockchain General Education Courses

4.1. Inclusive Teaching Contents

In terms of the contents of blockchain general education courses for New Business, the focus is to popularize the blockchain basic knowledge that financial practitioners need to know and to foster the basic blockchain thinking ability. The blockchain field is changing very fast, and the speed of writing textbooks cannot keep up with the speed of industry changes. It will be too late to launch the blockchain curriculum after perfection. Therefore, based on the principle of inclusiveness, in accordance with the overall goal of curriculum construction, it is suggested that a breadth-first method can be promoted, meaning to adjust the teaching contents dynamically so that students can build a comprehensive and three-dimensional cognitive structure of the blockchain financial industry and meet the students' diversified career plans.

Curriculum and link settings: Four topics can be created—popularization of blockchain technology, digital currency, blockchain finance and industry development trends. Students can learn blockchain from different dimensions and business perspectives. The contents of each topic are open for changes to meet forefront technology updates.

Topic 1—popularization of blockchain technology: Business is the soul while technology is the tool. Blockchain was born with the underlying technology of the virtual currency Bitcoin, so finance is its most natural application scenario. Therefore this topic is to learn and understand cutting-edge technologies such as blockchain from the perspective of management finance. Through
horizontal learning, comprehensive and all-round dialogue is stimulated to expand the knowledge of business students.

Topic 2—digital currency: Huang Yiping, Deputy Dean of the National Development Research Institute of Peking University, said that in the future competition between countries may be mainly in the field of digital finance, and digital currency may be the ultimate battlefield. Libra and China's central bank digital currency sounded the prelude to global digital currency competition. In this context, this topic can discuss the differences between Libra, Bitcoin, legal digital currencies, etc. from a financial perspective, and the opportunities and risks faced by global cross-border payments, international monetary systems, national currency sovereignty, money laundering, underground transactions, and data privacy.

Topic 3—blockchain finance: Blockchain technology will fundamentally improve the financial system and subvert many existing business models. This topic mainly discusses the application and future expectations of blockchain in the financial field. Based on the typical results of my country's blockchain financial application, such as the central bank's blockchain digital bill trading platform, the ant blockchain "dual chain connection" to break the financing problems of small and medium-sized enterprises, WeBank loan liquidation, and Tencent Cloud's use of blockchain technology Intelligent finance, etc. analyze and learn applied knowledge in cross-border finance, asset securitization, insurance, bills, supply chain finance and other fields.

Topic 4—industry development trend: This topic mainly stimulates thoughts on analysis of the latest and objective industry information and policies, to explore the disruptive technology and evaluate its impact on future business development.

4.2. Decentralized and Speculative Teaching Methods

At present, the application of blockchain technology is still being explored and tried, with few mature solutions and industry application cases. Therefore, the course can change the teacher-centered method, adopting a speculative one. Teachers can set issues that need to be discussed, analyze the blockchain industry with a mindset of decentralization, trustlessness and consensus. Teachers and students discuss and communicate together, providing students with a free environment for their growth, and give full play to students’ learning enthusiasm, guiding students to adopt an integrated way to understand and absorb the knowledge through discussion, case analysis, group cooperation, etc. Students' curiosity is stimulated for new knowledge of blockchain and teaching effectiveness will be improved.

4.3. Diversified Teaching Team

The teaching of blockchain general education courses depends on the educator's plan and method of "integration" in the education process. Therefore, teachers of science or engineering or business, industry elites and industry enterprise experts can be gathered to form a diversified faculty team to teach different topics. From the industry experts and college teachers, students can explore and learn blockchain from different dimensions and perspectives, so as to cultivate business talents who understand management and the new technology of blockchain technology that the market needs.

4.4. Debate-based Assessment Method

American educator Bruner believes that the acquisition of knowledge is an active process, and learners should be active participants of knowledge. "Students' learning is the process of actively participating in the establishment of the knowledge system, not just to remember what the teacher teaches in the classroom, so learning is the process of actively forming a cognitive structure. In this process, students are active knowledge inquirers but not passive receivers of information.” [4] Therefore, closely integration of the influence of blockchain technology on the financial field and establishment of a more arguable topic in line with the contents and characteristics of business courses can be used as final assessment to cultivate students' self-study ability, innovative research
ability and teamwork ability. Before the debate, students are required to refer to materials, think comprehensively, analyze and discuss, and express accurately. This is also a process of in-depth research on blockchain knowledge so that students have a more in-depth and comprehensive understanding of the topics, and the teaching effect can be effectively improved\textsuperscript{[5]}.

References


