CONSTRUCTING A PRACTICAL TEACHING SYSTEM FOR NEW BUSINESS DISCIPLINES IN THE DIGITAL ECONOMY ERA

YunXia Nie1,2
1 Shandong Jiaotong University, Jinan 250357, China.
2 Woosong University, Daejeon 300718, South Korea.
Corresponding Email: nieyunxia@sdfu.edu.cn

Abstract: The rapid development of the digital economy has accelerated the digital transformation of enterprises and significantly altered the demand for new business talents. Practical teaching plays a crucial role in the cultivation of business professionals. Therefore, the construction of a practical teaching system for new business disciplines directly impacts the quality of business talent development. This paper analyzes the new requirements for business talents brought about by the digital economy from the perspectives of knowledge, skills, and competencies. It explores the shortcomings of traditional business practice teaching systems and proposes a comprehensive practical teaching system. This system includes course design, teaching methods, practical teaching resources, evaluation and feedback mechanisms, and support mechanisms, aiming to cultivate high-quality business talents that meet the needs of the digital economy.

Keywords: Digital economy; New business disciplines; Practical teaching system; University-industry cooperation

1 INTRODUCTION

The scale of China's core digital economy industries continues to grow steadily, with their added value accounting for an increasing proportion of GDP. In 2023, the added value of the core industries of the digital economy is expected to exceed 12 trillion yuan, accounting for about 10% of GDP. The integration of digital technology with the real economy is accelerating, becoming a new driving force for the growth of the digital economy. This digital economy drives the continuous emergence of new demands, new models, and new business forms, reshaping corporate organizational structures and management models. Traditional enterprise management is facing transformation and upgrading, as existing management theories and practices can no longer meet the needs of the current era, necessitating an urgent overhaul.

In the digital economy era, the acceleration of enterprises' digital transformation has led to changes in the demand for new business talents, further driving the depth and intensity of reforms in business education. The quality of new business talent supply has become a key factor in achieving enterprise digital transformation. Practical teaching is a crucial component and essential tool in cultivating new business talents. Therefore, constructing a practical teaching system for new business disciplines is critical to ensuring that the supply of new business talent in the digital economy era precisely meets industry demands, ultimately determining whether the goal of cultivating application-oriented digital business talents can be achieved.

2 LITERATURE REVIEW

The digital economy has significantly transformed the business landscape, leading to a strong demand for new types of business talent. Digital transformation affects various aspects of enterprises, including labor and social relations, marketing and sales, and technology [1]. As the demand for new types of talent continues to grow, innovative talent cultivation and education methods are essential to meet the ever-evolving requirements of the digital economy.

Practical teaching plays a crucial role in developing students' practical skills and innovative abilities. Teng et al. explored practical teaching models in university advertising courses, emphasizing that teaching should align with market demands and students' graduation goals[2]. Han Xiaoming studied the application of internet technology in innovative political theory teaching, stressing the need to clarify the fundamental principles of practical teaching and enhance theoretical understanding. Yang et al. proposed an artificial intelligence-based practical teaching model for cultural industry management, highlighting the role of AI in promoting personalized and collaborative learning experiences[3].

However, traditional practical teaching models in business education face various challenges in today's educational environment. Lopez et al. discussed how computer classrooms and electronic networks reshape collaboration in business communication courses, opening new possibilities for collaborative activities beyond group interactions[4]. Hilletoft et al. introduced the application of ERP systems in logistics courses, suggesting a combination of traditional and modern methods for effective learning. Zheng et al. proposed a machine learning-based computer-assisted teaching method for software testing courses, aiming to enhance teaching content and case studies through innovative technology[5]. As the business landscape evolves, Kaoxun et al. emphasized the importance of business model
innovation for new enterprises to thrive in a competitive environment. Li Sheng explored changes in retail formats and the necessity of cultivating application-oriented e-commerce talent suited for the intelligent new retail era. Wu et al. examined the reform of talent cultivation models in economics universities to meet the demands of the digital economy[6]. They proposed various strategies, including redesigning talent cultivation programs, enhancing practical teaching content related to the big data economy, and creating teaching scenarios under the digital economy. Kwiliński et al. focused on the management of logistics activities in agricultural enterprises within the digital economy, aiming to improve efficiency through the digitization of business processes[7]. Industry-education integration has become a critical component of talent development across various fields. Shang Xiaoming discussed the importance of optimizing cultivation models and building an integrated talent cultivation mechanism for innovation and entrepreneurship to adapt to the "Internet+" era. Practical teaching plays an important role in this integration. Wang Xiaoming emphasized the need to enhance students' operational abilities through a practical teaching model that integrates industry and education. Additionally, Wang Xiaoming et al. explored constructing a practical education system for cultivating innovative application-oriented talent under industry-education integration, highlighting the importance of practical education in talent cultivation. Bian et al. emphasized the importance of practical indicators in vocational ability evaluation systems from the perspective of industry-education integration, pointing out the need to balance industry-centered practical skills and education-centered knowledge skills[8-9]. Therefore, exploring a new business practical teaching system in the context of the digital economy has significant theoretical and practical implications.

3 NEW REQUIREMENTS FOR BUSINESS TALENTS IN THE DEVELOPMENT OF THE DIGITAL ECONOMY

The development of the digital economy has put forward new requirements for business talents, which are reflected in a number of aspects, including interdisciplinary knowledge, innovation ability, big data analysis ability, data literacy and internationalization vision, etc.

3.1 New Knowledge - Interdisciplinary Knowledge

The digital economy necessitates that new business talents not only master fundamental business knowledge but also break through disciplinary boundaries to acquire interdisciplinary professional and general knowledge. Additionally, they need to understand basic technological concepts, particularly in emerging technologies such as artificial intelligence, block-chain, and the Internet of Things. This equips business talents with the ability to collaborate across disciplines and effectively communicate and cooperate with personnel from technology, marketing, operations, and other departments, collectively driving the digital transformation of enterprises.

3.2 New Capabilities - Innovation and Big Data Analytics

Driven by the digital economy, new business disciplines emphasize the integration of traditional business studies with information technology and stress alignment with local industry development. Therefore, new business talents need to possess practical innovation capabilities and big data analysis skills. They should be proficient in using various digital tools and platforms, such as data analysis software (Python, R, Tableau), project management tools (JIRA, Asana), and enterprise resource planning systems (ERP).

3.3 New Literacy - Data Literacy

The digital economy fosters deeper interdisciplinary integration across various sectors, enhancing informationization and digitalization, and transforming methods of knowledge acquisition. Technological advancements bring new changes and integrations to business-related professions, requiring students to possess composite professional abilities. In this context, the cultivation of new business talents should focus on developing foundational thinking logic and cognitive abilities based on the digital economy. They should form new understandings of new technologies, new sciences, and new professions, quickly adapt to technological and market changes, and possess the ability to work in uncertain environments. Moreover, they need to have strong problem-solving skills, enabling them to swiftly find effective solutions in complex business environments.

In summary, the digital economy sets higher comprehensive quality standards for business talents, encompassing various dimensions of knowledge, skills, and competencies. These requirements aim to cultivate new business talents capable of adapting to and leading the development of the digital economy.

4 ISSUES IN TRADITIONAL BUSINESS DISCIPLINE PRACTICAL TEACHING SYSTEMS

4.1 Inadequate System of Interdisciplinary Practical Courses and Projects

Traditional business discipline practical course systems are hampered by disciplinary barriers, resulting in a lack of development. Each discipline and specialty operates independently, without comprehensive planning or top-level design.
Interdisciplinary and cross-faculty course systems such as "Business + Science," "Business + Engineering," "Business + Big Data," and "New Technology + Business" have not been effectively implemented.

4.2 Insufficient Coordination and Sharing of Teaching Resources

The practical teaching system, which should be based on competency training, is incomplete due to inadequate collaborative innovation. Coordination of internal and external resources and online platforms is insufficient. The design and arrangement of interdisciplinary integrated practical teaching lack comprehensive planning, leading to students' inadequate ability to use new thinking and technologies to solve real-world problems.

4.3 Inadequate Practical Teaching Capabilities

Many business faculty members lack actual work experience in enterprises or industries, making it difficult for them to provide real cases and practical guidance in their teaching. Additionally, they are not proficient in new technologies and cannot incorporate the latest technological advances into practical teaching. Without a strong interdisciplinary and cross-professional knowledge background, some teachers struggle to effectively integrate multidisciplinary knowledge when designing practical courses, resulting in monotonous course content that fails to cultivate students' comprehensive application abilities.

4.4 Inaccurate Practical Teaching Quality Monitoring System

The practical teaching quality monitoring system lacks intelligence and precision due to insufficient digital empowerment. The system suffers from "information islands" and "data barriers," preventing intelligent monitoring, accurate feedback, and dynamic improvement. This leads to inefficient monitoring and enhancement of teaching quality.

5 CONSTRUCTING A NEW BUSINESS PRACTICAL TEACHING SYSTEM DRIVEN BY THE DIGITAL ECONOMY

The development of the digital economy not only changes how enterprises operate but also imposes higher and more comprehensive requirements on business talents. Business education must keep pace with these changes, continuously updating and improving training systems to cultivate high-quality talents that meet the demands of the digital economy. Given that business is a highly practical discipline, practical teaching becomes especially important in nurturing outstanding business talents. In the digital economy era, constructing a new business practical teaching system requires comprehensive consideration of course design, teaching methods, practical resources, evaluation mechanisms, and other aspects to adapt to the trends of digitization, intelligence, and globalization.

5.1 Establishment of a Diversified Curriculum

Universities should strengthen interdisciplinary integration, breaking down barriers between disciplines to broaden the knowledge scope of new business talents. This ensures a comprehensive understanding of learned knowledge and practical content, cultivating diversified business talents driven by technology.

5.1.1 Offering technology application courses

Courses such as Python, block-chain technology, and artificial intelligence help students understand and apply the latest technologies.

5.1.2 Offering courses integrating data science and business

Courses like quantitative finance, big data marketing, intelligent accounting, and business data analysis cultivate students' data processing and analysis abilities.

5.1.3 Offering professional practical case courses

Through the study and analysis of real business cases, students develop innovative thinking and entrepreneurial abilities, enhancing their problem-solving skills.

In the digital economy era, practical teaching and theoretical teaching content are no longer distinct but integrated. Teaching venues are not limited to physical spaces but utilize online and offline resources, adopting a learn-and-practice approach.

5.2 Innovating Teaching Methods

5.2.1 Project-based learning

Design comprehensive practical projects that are interdisciplinary and cross-professional. Students engage in company operations and decision-making in virtual environments, helping them master knowledge and skills from different fields, thereby enhancing their overall competence. Teamwork in these projects improves analytical, problem-solving, and collaboration skills.

5.2.2 Experiential learning
In the first year, organize professional cognition internships where students visit enterprises, factories, and markets to understand actual business operations and management. In the second and third years, involve students in role-playing through big data intelligent training platforms, simulating various job positions and work scenarios in enterprises. In the fourth year, arrange internship positions where students independently complete job responsibilities in real business settings. This experience not only tests their school learning but also extends and enhances it.

5.2.3 Competition-teaching integration
Host various competitions to integrate teaching with competition, promoting learning through contests. Students improve their technical abilities in research preparation, data analysis, and new media use during competition preparation. Competitions create real scenarios for solving digital problems, enriching and innovating the professional curriculum system, and enhancing the quality of technology-driven new business talent cultivation.

5.3 Enhancing Practical Teaching Resources
Practical teaching resources are divided into on-campus laboratories and off-campus industry-academic cooperation education bases. Connecting internal and external resources and achieving resource sharing can significantly improve the quality of practical teaching and talent cultivation.

5.3.1 On-campus laboratories
The new business on-campus laboratories are mainly composed of machine rooms and teaching software, and are divided into three main categories according to the different functions realised. One is the construction of data labs, such as ERP labs and quantitative investment labs, equipped with advanced hardware equipment and data processing software and professional teaching software. The second is the establishment of on- and off-campus training bases, such as physical simulation sand table laboratories, etc., which simulate the real business environment and provide a comprehensive practice platform. Third, the construction of virtual simulation laboratory, combined with professional characteristics and advantages of the development of virtual simulation courses, the use of virtual reality technology, to provide realistic business scenarios and situations, students can carry out real business practice operations and decision-making in the virtual environment. This kind of practical learning helps students apply theoretical knowledge to practical problems and enhances their practical operation and problem-solving abilities.

5.3.2 Off-campus industry-academic cooperation education bases
Universities should establish industry-academic cooperation bases with leading enterprises, addressing the lack of digital teaching resources and practical venues. This collaboration allows students to gain practical work experience and understand new business requirements. Corporate executives and industry experts can share knowledge and experience in classrooms, while professional teachers can enhance their practical teaching capabilities through consulting and training projects with enterprises.

5.4 Establishing a Scientific Evaluation and Feedback Mechanism

5.4.1 Establishing a diversified evaluation system
Practical teaching evaluation should combine qualitative and quantitative methods, focusing on both teaching outcomes and process evaluation. Practical outcomes include project reports, lab reports, case analysis presentations, and virtual simulation project data. Teachers should also evaluate students' performance during the practical teaching process, including their participation, teamwork skills, innovation, and problem-solving abilities.

5.4.2 Establishing a timely and effective feedback mechanism
Instructors and industry mentors should provide timely feedback on students' practical performance, helping them identify shortcomings and make improvements. Students should also be encouraged to provide feedback on the practical teaching process and content. Universities should leverage big data platforms to develop internship and training management systems, allowing dynamic evaluation based on teaching data monitoring and analysis. Additionally, universities should leverage big data platforms to develop and use internship and training management platforms and thesis management systems that align with the digital era. A dynamic evaluation method based on teaching data monitoring and analysis is more scientific and reasonable, providing timely and efficient feedback and highlighting the necessity of enhancing data analysis and application skills.

5.5 Enhancing Practical Teaching Support

5.5.1 Increasing financial support
Universities should formulate relevant policies to support and promote the construction and implementation of new business practical teaching systems, particularly by increasing funding for practical teaching. Most practical teaching in new business disciplines requires simulating business scenarios to help students understand and become familiar with business operations and management skills, thereby enhancing their practical abilities. Therefore, practical teaching needs dedicated training venues, hardware equipment, and teaching software, all of which must be continuously updated in line with the times. As societal demands for new business talents evolve, teachers also need to continually upgrade their knowledge structures and practical abilities. To this end, universities should regularly provide practice-oriented training for
teachers or send them for further study, which also requires financial support. Additionally, organizing student field trips to enterprises or guiding students in academic and technological competitions also requires dedicated funding. With the assurance of specialized funding, the effective organization of various activities and the achievement of results will be facilitated.

5.5.2 Building a high-quality "dual-qualified" teaching team
In the digital economy era, enhancing the practical teaching abilities of the "dual-qualified" teacher team is crucial. These teachers need solid theoretical knowledge, rich practical experience, and strong teaching abilities. Improving incentive mechanisms can encourage teachers to focus on practical teaching. Strengthening faculty training in areas such as commercial big data analysis and application, and practical training at "dual-qualified" cooperation bases, can enhance their digital teaching, practical guidance, and societal service abilities. Building university-industry cooperation platforms helps teachers continually improve their practical abilities, enhancing teaching effectiveness and cultivating high-quality business talents for the digital economy.

6 CONCLUSION
Practical teaching must align closely with enterprise needs, especially amid the digital transformation where there is a pressing demand for talents with digital skills. Constructing a new business practical teaching system in the digital economy era is essential. This involves efforts in five key areas: establishing a diversified curriculum system, innovating teaching methods, enhancing practical resources, creating a scientific evaluation and feedback mechanism, and strengthening practical teaching support. These measures will effectively improve students' comprehensive qualities and practical abilities, cultivating high-quality business talents that meet the evolving needs of the digital economy.

COMPETING INTERESTS
The authors have no relevant financial or non-financial interests to disclose.

FUNDING
This work was supported by the Shandong Province Education and Teaching Research Project: Research on the Construction and Practice of Practical Teaching System for Humanities Majors in Applied Undergraduate Colleges under the New Liberal Arts Background (Project No.: 2021JXY067).

REFERENCES