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Implementation Path of Practical Training Systems for Economics and Management Majors in Applied Undergraduate Universities under TPACK-SAMR Framework

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Abstract: The digital economy is developing rapidly. Practical training systems for economics and management majors in applied undergraduate universities face multiple dilemmas. These include lagging curriculum updates. They also include superficial technology application. Another issue is the insufficient depth of industry-education integration. The goal is cultivating innovative, applied, and composite talents adapted to the background of digital-intelligence integration. This study relies on the dual theoretical models of TPACK and SAMR. TPACK stands for Technological Pedagogical Content Knowledge. SAMR represents Substitution, Augmentation, Modification, and Redefinition. This paper proposes a systematic reform plan for the practical training system. The article first analyzes the disconnection between technology and content in traditional practical teaching. It reconstructs the practical curriculum system based on the TPACK model. This achieves deep integration of technological knowledge, content knowledge, and pedagogical knowledge. Secondly, the study constructs a triple progressive practical training environment consisting of loops, chains, and networks. These correspond to specific functions. One is the reinforcement of skill points in core courses. Another is the business chain integration of course groups. The last is the construction of cross-disciplinary collaborative networks. The authors plan an innovation path for practical training methods using the SAMR model. This ranges from tool substitution to teaching redefinition. The study designs spiral progressive multi-level practical training modules based on this foundation. Finally, the paper proposes guarantee mechanisms from five dimensions. These include curriculum development and content updates. Other dimensions are faculty construction, platform building, and quality evaluation. The research aims to construct a new practical training ecosystem with full coverage and deep integration. It utilizes the combination of virtuality and reality alongside digital-intelligence empowerment. This will effectively enhance the job competency and cross-boundary innovation ability of economics and management talents.

1. Introduction

The digital economy is booming. New generation information technologies include artificial intelligence, big data and blockchain. These technologies are profoundly changing business formats and operational models in the field of economic management. The China Academy of Information and Communications Technology published the White Paper on Digital Economy Development 2024. It states that the scale of the digital economy in China has reached 52.1 trillion yuan. This accounts for more than 41 percent of the GDP. LinkedIn released the 2024 China Talent Market Insight Report. It shows specific requirements from enterprises recruiting for economics and management positions. 85 percent of them explicitly require candidates to possess data analysis capabilities. 73 percent require familiarity with at least one AI tool application. 68 percent emphasize cross-boundary integration abilities. This transformation places new demands on economics and management talents. They need to master traditional economic and management theories. They also need to possess data analysis capabilities, intelligent tool application skills and cross-boundary innovative thinking. This aligns with the evolving trend of skill formation patterns in the digital age [1]. However, the current practical training system for economics and management majors in applied undergraduate universities faces three dilemmas. The first is the lag in curriculum system updates. Research by the McKinsey Global Institute indicates that digital-intelligence technology achieves a major breakthrough every 18 months. Traditional curriculum system update cycles often require 3 to 5 years. This time lag between technological evolution and educational adaptation leads to a misalignment. There is a mismatch between talent cultivation and industrial demand. The second dilemma is insufficient practical training conditions. A sample survey by the Higher Education Teaching Evaluation Center of the Ministry of Education reveals specific data. The proportion of laboratories with AI application environments in economics and management majors at applied undergraduate universities is only 17.8 percent. The coverage rate of platforms supporting big data analysis is less than 25 percent. The third dilemma is the insufficient depth of industry-education integration. The Ministry of Education issued the 2024 Evaluation Report on the Efficiency of Industry-Education Integration. It points out that the proportion of substantive cooperation in curriculum co-construction in applied undergraduate universities is less than 30 percent.

In recent years, the TPACK-SAMR framework has provided systematic theoretical guidance for the reform of practical training systems in these majors. However, a clear implementation gap remains between the theoretical framework and practical application. How can we translate the reconstruction of teacher knowledge structures and the progression of technology application levels into actionable implementation steps? How can we design specific practical training courses, modules and activities? How can we establish guarantee mechanisms to support the continuous advancement of reform? These questions become key bottlenecks restricting the in-depth development of practical training system reform. Existing research mainly has deficiencies in three aspects. First, it focuses mostly on theoretical construction and model exploration. Research on specific implementation paths is not deep enough. Second, research on operational levels such as practical training curriculum design and module development is relatively scattered. It lacks systematicity. Third, research on guarantee mechanisms mostly stays at the macro level. It lacks concrete and actionable measures. Xie Danlin proposed the idea of integrating content such as data science and artificial intelligence. However, she did not deeply explore specific implementation steps [2]. Sun Jing emphasized the importance of cultivating digital learning capabilities. However, she did not provide much detail on specific construction plans for practical training platforms [3]. This study is based on the TPACK-SAMR theoretical framework. It focuses on solving two major problems regarding implementation and guarantees. The research systematically designs an optimization plan for practical training courses. It also creates an innovation path for practical training methods. It develops a multi-level practical training module system. It establishes a five-in-one guarantee mechanism. This provides a complete and actionable implementation plan for practical training system reform in applied undergraduate universities.

2. Optimization of Practical Training Curriculum System Based on the TPACK Model

The study addresses the separation between professional content and technology application in traditional economics and management practical teaching. This research systematically reconstructs the practical training curriculum system based on the TPACK model. The goal is breaking the barriers between technology and theory. It achieves deep integration of technological knowledge, content knowledge and pedagogical knowledge. The project draws on the experience of digital transformation in German higher education [4]. It constructs a triple progressive practical training environment consisting of loops, chains and networks. The project group designs a complete path from skill point reinforcement in single courses to knowledge chain integration in course groups. It moves to the construction of cross-disciplinary collaborative networks. This forms a new practical teaching ecosystem with progressive layers and virtual-real integration.

2.1 Design of Core Course Practical Training Modules

The instructional design in the loop-type practical training environment focuses on core business links of specific courses. It prioritizes solving the problem of disconnection between technical tools and professional theories in a single course. The aim is strengthening student understanding and application of professional knowledge through technical means. First is the Digital Economy and Intelligent Management course. The practical training focuses on cultivating student digital strategic thinking. It requires students to use classic management theories such as PEST analysis and the Porter Five Forces model to diagnose traditional enterprises. They introduce the ERP sandbox environment to simulate digital business processes. They design a complete transformation plan containing strategic planning and technology selection for specific enterprise pain points. This achieves the organic combination of management theory and digital technology. Second is the Big Data Analysis and Decision Practice course. The practical training emphasizes data-driven decision-making capabilities. It covers the data cleaning link using Python libraries to process real transaction data. It includes the exploratory analysis link using Tableau tools for multi-dimensional visual display. It involves the deep mining link applying regression analysis and decision tree algorithms to construct prediction models. This comprehensively enhances student quantitative analysis capabilities for solving complex business problems. Finally comes the Intelligent Operations Management Case Analysis course practical training. It focuses on the intelligent improvement of operational efficiency. It analyzes the intelligent supply chain architecture of leading enterprises. It guides students to use Excel Solver or Python to construct inventory optimization models. It combines cases like SF Express and Cainiao to conduct vehicle routing planning simulation and intelligent customer service process design. This realizes the scenario-based implementation of operations management knowledge.

2.2 Design of Comprehensive Practical Training for Course Groups

The chain-type practical training environment aims to break the boundaries of single courses. It utilizes knowledge graph technology to connect scattered knowledge points into systematic business chains. This promotes the horizontal connection and vertical deepening of knowledge across majors. The project group takes the finance major as an example. It constructs a complete business chain covering data analysis, investment decision-making, risk management and financial technology application. Based on this, it designs a ten-week comprehensive practical training on intelligent investment decision-making and risk management. The logic of this practical training process is rigorous. Students use financial terminals like Wind and Hithink RoyalFlush to collect data and conduct fundamental analysis to identify investment opportunities in the first two weeks. The following two weeks involve using the mean-variance model and the CAPM model to construct optimal investment portfolios. The middle period introduces quantitative methods such as VaR to assess risk and design hedging strategies. The later period focuses on learning principles of intelligent investment advisors and using machine learning tools to construct prediction models. The last two weeks require students to integrate results from the whole process to form investment decision reports and conduct roadshows. The accounting major follows the same logic to construct a business chain from financial accounting and analysis to management decisions and intelligent auditing. The marketing major forms a closed loop from market research and consumer insights to marketing planning and effect evaluation. The close connection of various links effectively cultivates the comprehensive literacy of students in solving complex business chain problems.

2.3 Design of Cross-Disciplinary Comprehensive Practical Training

The network-type practical training environment relies on the Internet and cloud computing platforms. It aims to break barriers between majors and between schools and enterprises. It constructs a hybrid ecosystem of on-campus virtual environments and off-campus real projects. The teaching team organizes students from different majors to set up virtual enterprises in this link. They carry out an eight-week comprehensive cross-disciplinary practical training. Each virtual enterprise consists of about ten students selected across majors. They act as key roles such as CEO, CFO and CMO respectively. The practical training content deeply covers core stages such as strategic planning, product research and development, marketing, financial management and operation optimization. This simulates the gaming and collaboration in the real business environment in all aspects. This mode also reflects the integration trend of innovative and practical talent cultivation [5]. The project deeply integrates various digital-intelligence technologies to support this complex practical training system. It uses enterprise management simulation platforms to provide dynamic virtual market environments and automatically feedback operating results. It relies on cloud collaboration platforms such as DingTalk and Feishu to break physical space limitations and support online collaboration. It introduces business intelligence tools such as Power BI to assist management in making precise decisions. It deploys AI-assisted decision-making systems to provide strategic diagnosis. The project discards single result orientation in the evaluation system. It adopts multi-dimensional comprehensive evaluation methods. Operating performance evaluation accounts for 40 percent. This focuses on assessing hard financial indicators. Team collaboration evaluation, innovation capability evaluation and reporting defense evaluation each account for 20 percent. These focus on assessing member peer review data, the innovation of plans and the logical expression and adaptability of the team respectively. This design ensures that the practical training process emphasizes the achievement of operating results. It also emphasizes the cultivation of cross-boundary integration awareness and innovative thinking.

3. Innovation of Practical Training Methods Based on the SAMR Model

3.1 Construction of Virtual-Real Combined Practical Training Mode

The SAMR model emphasizes the progression of technology application from Substitution and Augmentation to Modification and Redefinition. The practical training mode of virtual-real combination serves as an important reflection of technology application reaching the Modification and Redefinition levels. Regarding the construction of virtual simulation practical training environments, the project is committed to building high-immersion interactive scenarios. This aligns with the path of digital twin technology in enhancing application skills within higher education [6]. One example is the construction of virtual bank branches. Students wear VR headsets to enter the virtual environment and act as bank tellers. They process various businesses. The system automatically records service processes and generates evaluation reports. Another example is the construction of virtual stock exchanges. These simulate real stock market trading rules and provide historical market playback functions. This helps students verify the effectiveness of investment strategies. The project also constructs virtual enterprise operating environments. It uses 3D modeling technology to restore factories, warehouses and stores. This enables students to intuitively perceive the impact of different decisions on operational efficiency. The focus of functional expansion for online practical training platforms lies in using intelligent technology to optimize learning experiences. This includes tracking student behavioral data based on learning analysis technology. It involves using machine learning algorithms to generate personalized learning paths. It also includes introducing natural language processing technology to develop intelligent Q&A robots for immediate tutoring. Another aspect is providing online collaboration tools to support students in forming collaborative learning spaces and completing tasks together. In addition, the practical training organization adopts the flipped classroom mode. It reconstructs the learning process into three stages. The first is pre-class online learning of theory and videos. The second is in-class practical exercises in physical or virtual environments. The third is post-class online completion of expansion and reports. This achieves the deep integration of online and offline elements.

3.2 Path for Improving Teachers' TPACK Abilities

Teacher capability improvement based on the TPACK model should center on Technological Knowledge, Content Knowledge, Pedagogical Knowledge and their integrated application. Training on Technological Knowledge covers data analysis tools such as advanced Excel functions, SPSS, Python data analysis and Tableau visualization. It covers artificial intelligence applications including basic machine learning principles and generative AI tools like ChatGPT. It includes virtual simulation development tools such as Unity and Unreal Engine. It also involves the use of online teaching platforms such as Rain Classroom and Xuexitong. Regarding cultivation strategies for Technological Content Knowledge, the project organizes case study workshops to share experiences of integrating digital-intelligence technology into specific courses. It holds instructional design competitions to select innovative schemes. It also selects teachers for temporary positions in enterprises to understand actual technology application scenarios. The improvement of Technological Pedagogical Knowledge mainly adopts flipped classroom teaching method training to master micro-course production and task design. It includes blended teaching design training to optimize online-offline connection. It involves project-based learning organization training to design real situational tasks. It also includes training on the application of learning analysis technology to analyze student behavior using data. Finally, the systematic integration and improvement of TPACK knowledge are achieved by building interdisciplinary teaching practice communities. Other methods include encouraging teachers to conduct action research and formulating personalized professional development plans.

3.3 SAMR Hierarchical Progression of Technology Application

This project formulates a ladder-type technology application path from Substitution to

Redefinition based on the SAMR model. The Substitution level focuses on the digital upgrade of tools. Examples include using Excel spreadsheets to replace paper ledgers for financial accounting. They include using online questionnaire tools to replace paper questionnaires for market research. They also include using e-commerce simulation platforms to replace offline business sandboxes. The Augmentation level emphasizes using technology to improve efficiency and effectiveness. This includes using visualization tools like Tableau and Power BI to enhance the intuitiveness of data analysis. It involves introducing real-time market data interfaces to enhance the realism of investment decision practical training. It also includes using video conferencing tools to break geographical limits and improve school-enterprise cooperation efficiency. Technology begins to significantly change task execution methods at the Modification level. Examples are using cloud computing platforms to achieve collaborative financial analysis by cross-regional teams. Others are carrying out supply chain finance practical training based on blockchain technology. Another is utilizing learning analysis technology to realize personalized practical training path planning. Technology creates brand-new learning experiences at the Redefinition level. This aligns with the opportunities brought by generative AI for entrepreneurship education [7]. We use VR technology to construct immersive virtual business environments. We utilize generative AI as intelligent assistants to aid in business plan design and scheme optimization. We also carry out transnational virtual internships in the Metaverse. The technology application level closely matches the environment level in the triple practical training environment of loops, chains and networks. The loop-type environment mainly applies Substitution and Augmentation levels. The chain-type environment advances to the Modification level. The network-type environment reaches the Redefinition level. This layer-by-layer progressive design ensures the deep empowerment of practical teaching by digital-intelligence technology.

4. Spiral Progressive Multi-Level Practical Training Module System

4.1 In-Course Practical Training Modules

In-course practical training forms the cornerstone of the practical training system. It aims to consolidate student basic technical skills. The module allocates practical training resources differentially based on course nature. It mandates that practical training hours account for no less than 20 percent in theoretical foundation courses. The proportion for applied professional courses is no less than 30 percent. Skill-based courses need to reach over 50 percent to ensure sufficient hands-on practice time. The module strictly follows four principles in task design. These are linking theory with practice, progressive difficulty, case authenticity and result visualization. Each practical training task must precisely correspond to specific theoretical knowledge points. It must gradually transition from basic imitative operations to complex innovative applications. Teachers introduce desensitized data and cases from real enterprises during teaching. Students must present analysis results in standardized reports, data charts or presentation slides. This achieves the conversion of theoretical knowledge to operational skills at the micro level.

4.2 Course Group Practical Training Modules

Course group practical training aims to break barriers of single subjects. It integrates knowledge systems of multiple related courses around core capabilities of professional directions. This module is usually arranged in the middle of professional learning. It lasts for 8 to 10 weeks and counts for 2 to 3 credits. Practical training adopts a group collaboration mode. Each group consists of 4 to 6 students. They solve comprehensive problems through teamwork. The entire implementation process divides into three continuous stages of initiation, implementation and summary. The initiation stage in the first week clarifies task requirements through mobilization meetings and completes team formation. The implementation stage follows from the 2nd to the 8th week. Students carry out projects autonomously under teacher guidance. They establish a weekly reporting system to monitor progress. The summary stage occurs in the 9th and 10th weeks. Teams need to submit complete practical training reports and conduct result presentations and defenses. This design helps cultivate student comprehensive application capabilities and team collaboration spirit in a multi-disciplinary cross background.

4.3 Professional Comprehensive Practical Training Modules

Professional comprehensive practical training is placed in the later stage of professional learning. It is a key link connecting campus learning and workplace application. It aims to comprehensively cultivate student job competency. This module simulates real business ecosystems. It requires students to experience job rotation in full-process business. The finance major simulates complete business processes of commercial banks and securities companies. It allows students to rotate among different positions to understand the full business picture. The accounting major simulates the full-cycle business of enterprises from accounting and financial analysis to internal audit. The marketing major focuses on the full-process planning and execution of product launches. Students can understand business logic from a macro perspective through this high-fidelity simulation training. This achieves systematic integration of professional skills and professional transformation.

4.4 School-Enterprise Cooperation Practical Training Modules

The school-enterprise cooperation practical training module creates combat-oriented teaching environments by introducing real enterprise projects. This meets the requirements of the university-industry-government triple helix innovation model [8]. Project sources mainly include three pathways. One is targeted collection from cooperative enterprises. Another is releasing demands relying on school-enterprise cooperation platforms. The third is teachers transforming actual enterprise problems into teaching projects. This is also an effective path for industrial colleges to cultivate practical applied talents [9]. Typical practical training projects cover intelligent customer service optimization in cooperation with banks. Students need to identify service shortcomings through data analysis. Another is big data precision marketing in cooperation with e-commerce enterprises. This requires constructing user portraits and designing differentiated strategies. A third involves risk assessment in cooperation with supply chain finance companies. It involves the construction of credit scoring models for small and medium-sized enterprises. The module implements a dual-tutor system to guarantee implementation effects. Internal teachers and enterprise experts provide joint guidance. They establish strict progress reporting and interim inspection mechanisms. Both parties clarify intellectual property ownership through agreements. They actively promote the actual implementation and application of excellent results on the enterprise side. This achieves deep integration of industry and education.

4.5 Innovation and Entrepreneurship Project Practical Training Modules

The innovation and entrepreneurship project practical training stands at the top of the practical training system. It aims to build a talent cultivation system for innovation, creativity and entrepreneurship in universities [10]. This module relies on the innovation and entrepreneurship project incubation platform established by the school. It follows best practice components of future entrepreneurship policies [11]. It provides all-round resource support for teams. It promotes learning through competition by organizing students to participate in high-level competitions such as Internet Plus and the Challenge Cup. The module particularly emphasizes unleashing digital entrepreneurial potential in the background of digital-intelligence integration [12]. It utilizes generative AI tools to assist in business model design, market competitor analysis and financial forecasting. AI serves as an intelligent assistant to provide creative inspiration. Students focus on the formulation of core strategies. Students can form virtual entrepreneurial teams across majors with the help of digital-intelligence driven collaborative platforms. They complete business plans under real-time online guidance from enterprise mentors. This realizes the innovation of traditional entrepreneurship education models at the Redefinition level.

5. Five-in-One Guarantee Mechanism for Practical Training System Reform

5.1 Guarantee for Practical Training Curriculum Development

The project group establishes a standardized curriculum development mechanism based on the TPACK model. It aims to ensure organic integration of Technological Knowledge, Content Knowledge and Pedagogical Knowledge from the source. A cross-boundary curriculum development group forms for this purpose. It consists of subject teachers, industry experts and educational technology experts. They coordinate to advance curriculum construction. The development process strictly follows a closed-loop path. This includes demand analysis, goal setting, content design, resource development, trial evaluation and revision. The mechanism mandates that every newly developed or reconstructed practical training course must pass full process verification. This ensures curriculum quality meets reform requirements. The project group formulates detailed curriculum construction standards. These cover core elements such as syllabuses, instructional design schemes, multimedia teaching resources and supporting evaluation schemes. This finally forms standardized practical training course packages to provide normative guidance for teaching implementation.

5.2 Guarantee for Practical Training Content Updates

The project group establishes a dynamic update mechanism for practical training content according to the SAMR model to maintain content frontier status and modernity. The mechanism requires organizing an expert committee for evaluation every academic year. It advances the iteration of technology application levels in practical training content based on industry trends and technological change nodes. The project establishes normalized communication channels with cooperative enterprises regarding external connections. It regularly investigates the latest industry trends and talent demand changes. It introduces real latest business cases and frontier technology applications from enterprises into practical training teaching in a timely manner. This achieves resonance between industry and education content. The project actively encourages teachers to participate in high-end industry conferences, conduct deep enterprise surveys and attend special technical training regarding internal drivers. This ensures teachers can master industry frontier dynamics in time. They can quickly transform new knowledge and new technologies into practical training teaching content. This builds a content update ecosystem of introduction, internalization and output.

5.3 Construction of Practical Training Teaching Teams

The faculty team is the key to reform implementation. The project group is committed to building a layered and classified teacher empowerment system. It systematically improves teacher comprehensive literacy in dimensions of Technological Knowledge, Technological Content

Knowledge and Technological Pedagogical Knowledge. The group formulates a stepped teacher development plan for this purpose. Basic training targets all teachers to popularize basic digital-intelligence knowledge and general application skills. Advanced training focuses on backbone teachers. It conducts deep training on the integration of technology and professional content alongside instructional design under technical support. Senior seminars select excellent teachers to participate in high-level domestic and foreign academic exchanges and special training. Practical exercises organize teachers to take temporary posts in enterprises. They improve dual-qualified quality through actual combat. The project group establishes a supporting teaching team assessment and incentive mechanism. It incorporates practical training teaching workload, resource development contribution and student output into performance assessment indicators. It gives clear rewards and promotion support to teachers performing well in practical training reform.

5.4 Construction of Practical Training Support Platforms

Technical infrastructure is the physical carrier of practical training reform. The project group will invest special funds to comprehensively upgrade existing laboratory conditions. It will build a high-standard digital-intelligence economics and management practical training center. The center will be equipped with high-performance computing clusters, big data analysis platforms, AI application systems and advanced virtual simulation equipment. This consolidates the hardware foundation. The project relies on cloud computing technology to construct a ubiquitous practical training environment. It supports remote access and collaborative learning. This breaks physical space limitations so students can carry out practical training tasks anytime and anywhere via cloud platforms. It will develop mobile learning applications to adapt to learning habits in the mobile internet era. This facilitates students in using fragmented time to view tasks, submit assignments and participate in discussions. The project establishes a school-level practical training resource library. It achieves digital integration and network-wide sharing of syllabuses, courseware, case materials, tool software and assessment item banks. This improves resource utilization efficiency.

5.5 Practical Training Quality Evaluation System

The project group constructs a multi-dimensional evaluation system based on TPACK and SAMR models to scientifically assess reform effectiveness. It realizes the transformation from single evaluation to multiple evaluation. The evaluation subjects include teachers, students, enterprise mentors and third-party assessment institutions. This forms a multi-perspective feedback mechanism. It also aids in the selection of top innovative talents and evidence-based research [13]. The evaluation method combines process evaluation with summative evaluation. On one hand, it uses learning analysis technology to collect and record data on student participation, operation standardization and task completion trajectories in real time. It automatically generates process evaluation reports. On the other hand, it assesses final learning outcomes through practical training work displays, comprehensive report writing and skill tests. The system will generate capability portraits for each student containing three dimensions of basic skills, professional skills and innovation and entrepreneurship skills based on the above data. The project group establishes a closed-loop quality improvement mechanism. It regularly collects student feedback to optimize teaching links. It organizes enterprise experts to assess results to verify talent matching. It compiles the Annual Report on Practical Training Teaching Quality every academic year. This systematically summarizes effectiveness, analyzes problems and formulates improvement measures to ensure continuous improvement of practical training quality.

6. Conclusion

The arrival of the digital-intelligence integration era has profoundly reshaped the industry ecosystem of economic management. It poses brand-new challenges to talent cultivation in applied undergraduate universities. This study relies on regional economic development needs. It introduces the dual theoretical models of TPACK and SAMR. It constructs a practical training system reform plan for Three-Type talent cultivation in economics and management majors. We break the barriers of isolated courses and disconnected technology in traditional practical training by reconstructing the triple practical training environments of loops, chains and networks. This achieves a spiral ascent from single skill training to cross-boundary collaborative innovation. Research indicates that faculty empowerment based on the TPACK model is the prerequisite for reform. It effectively solves the problem of lagging teacher technology application capabilities. Technology level progression based on the SAMR model is the key to reform. It ensures digital-intelligence technology moves from simple tool substitution to deep teaching redefinition. The construction of this system provides actionable implementation paths for solving pain points such as insufficient practical training conditions and shallow industry-education integration. It provides useful theoretical references and practice paradigms for applied undergraduate universities to cultivate modern economics and management talents with digital-intelligence thinking, innovative spirit and composite capabilities. The practical training system still needs continuous iteration in human-machine collaboration and immersive experiences in the future. This will happen as generative artificial intelligence and Metaverse technologies mature further. It aims to adapt to the constantly evolving digital economy forms.

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