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AI Enables Schools and Enterprises to Cooperate to Explore a new Model of Cultivating multi-Disciplinary Talents in E-commerce Based on the investigation and research of Trueland Information Technology (Shanghai) Co., Ltd

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Abstract

The paper expounds the challenges and opportunities faced by talent training in the AI era, and emphasizes the urgency of cultivating e-commerce composite talents and the necessity of industry-education integration. This paper analyzes the new model framework and the key points of curriculum system reconstruction from the aspects of target positioning, curriculum system and teaching method. The influence of AI technology development on the development of e-commerce education is expounded. The practical experience of building a training system and faculty construction for e-commerce majors in school-enterprise cooperation points out the future development direction of AI enabling school-enterprise collaborative creation of e-commerce multi-disciplinary talents.

Key words: AI empowerment, school-enterprise collaboration, e-commerce talent training, multi-disciplinary talents, digital transformation of education

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ปัญญาประดิษฐ์เปิดโอกาสให้สถานศึกษาและภาคธุรกิจร่วมมือกัน เพื่อสำรวจรูปแบบใหม่ในการพัฒนาบุคลากรสหสาขาวิชาในอีคอมเมิร์ซ โดยอ้างอิงจากการศึกษาและวิจัยของบริษัท บริษัท ทรูแลนด์ อินฟอร์เมชั่น เทคโนโลยี (เซี่ยงไฮ้) จำกัด

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บทคัดย่อ

บทความนี้อธิบายถึงความท้าทายและโอกาสที่การฝึกอบรมบุคลากรต้องเผชิญในยุคปัญญาประดิษฐ์ และเน้นย้ำถึงความเร่งด่วนในการพัฒนาบุคลากรเชิงบูรณาการด้านอีคอมเมิร์ซ รวมถึงความจำเป็นการบูรณาการระหว่างอุตสาหกรรมและการศึกษา โดยวิเคราะห์กรอบรูปแบบใหม่และประเด็นสำคัญของการปรับโครงสร้างระบบหลักสูตร จากมุมมองของการกำหนดเป้าหมาย ระบบหลักสูตร และวิธีการสอน พร้อมทั้งอธิบายถึงอิทธิพลของการพัฒนาเทคโนโลยี AI ต่อการพัฒนาการศึกษาอีคอมเมิร์ซ ประสบการณ์เชิงปฏิบัติในการสร้างระบบการฝึกอบรมและการพัฒนาคณาจารย์สำหรับสาขาอีคอมเมิร์ซภายใต้ความร่วมมือระหว่างสถานศึกษาและภาคธุรกิจ ได้ชี้ให้เห็นทิศทางการพัฒนาในอนาคตของการใช้ AI เพื่อเสริมสร้างความร่วมมือระหว่างสถานศึกษาและภาคธุรกิจในการสร้างบุคลากรสหสาขาวิชาในอีคอมเมิร์ซ

คำสำคัญ: การเสริมพลังด้วยปัญญาประดิษฐ์ ความร่วมมือระหว่างสถานศึกษาและภาคธุรกิจ การฝึกอบรมบุคลากรด้านอีคอมเมิร์ซ บุคลากรสหสาขาวิชา การเปลี่ยนผ่านดิจิทัลของการศึกษา

Introduction

The rapid advancement of AI technology is profoundly reshaping talent demand in the field of E-commerce, It will also face the challenge and opportunity of training compound talents in e-commerce. With the continuous expansion of the global talent gap in artificial intelligence, New requirements have been put forward for the traditional e-commerce education mode in universities. The key challenge is how to cultivate composite talents who possess a solid programming foundation, are proficient in AI algorithm applications, and demonstrate strong

business acumen. In this context, the integration of industry and education has moved from policy advocacy to practical necessity, and become an important way to solve the contradiction of talent supply side.

The university and the enterprise jointly build a talent training base, Schools and enterprises jointly build talent training bases, and reconstruct "AI+ e-commerce" courses and practical training innovations through school-enterprise cooperation, Explore the AI-enabled school-enterprise collaborative e-commerce talent training model which deeply integrates digital marketing and software technology (Cheng, Liu, & Liu, 2025), It not only solves the pain point of disconnection between theory and practice in traditional education, Through the empowerment of AI technology, It has realized the comprehensive innovation of teaching scene, ability evaluation and career development, and provided a new model for e-commerce talent training that can be replicated.

AI empowers the innovation of collaborative training mode between universities and enterprises

Model framework and core elements

Artificial intelligence empowers school education reform, First of all, artificial intelligence technology should be used to cultivate students' internal motivation and build a new paradigm of self-driven learning; Secondly, by developing large education models for educational scenarios, we can empower efficient and personalized education; Finally, promote the transformation of teachers and students' roles and improve their ability and quality (Du, Fu, Wang, et al., 2025). The AI-enabled school-enterprise collaborative training model of "True land Ltd.", A "trinity" system innovation has been constructed, which is guided by industrial demand, driven by AI technology and carried by education, innovation The talent training path should be reconstructed around its three core elements. We will actively explore the optimization plan of business talent training through school-enterprise cooperation and continue to cultivate a large number of multi-skilled e-commerce talents with higher education background for the country (Han & Liu, 2024)

(1) Reconstruct target positioning Different from the unidirectional ability model of traditional E-commerce talent, A new model of three-dimensional ability composite of "technology + business + data", It is committed to cultivating integrated talents who "master the ability of intelligent marketing system development, business data analysis and full-link digital operation". This positioning enables graduates to be competent in front-end development, algorithm optimization and other technical positions, It can also control e-commerce operation, digital marketing and other business scenarios, and significantly improve employment competitiveness.

(2) Reform of teaching system Reconstruct the "modular + dynamic update" mechanism (see Table 1) Transforming real enterprise projects into teaching resources, that is, breaking down the intelligent marketing cloud platform with modules such as intelligent website construction, intelligent promotion and data tracking into teaching units, Schools and enterprises jointly build "AI+ e-commerce" curriculum group. We will deepen the integration of industry and education in "positions, courses, competitions and certificates" to promote high-quality development of vocational education in the new era (Han, Pan, & Wang, 2024). That is, the course assignments can participate in the national college students' competition, and the excellent works can be directly transformed into enterprise service plans, forming a closed loop of "learning-practice-output".

Build a teaching scene that integrates virtual and real in a way that breaks through the limitation of time and space. Schools and enterprises build training rooms to connect the needs of enterprises into the classroom in

real time. Under the guidance of teachers and enterprise mentors, the student team completed the whole process of practical combat from demand analysis, algorithm development to promotion and operation, Make the learning process seamless with the work process.

Table 1 Trueland Ltd." school-enterprise co-construction curriculum system structure

The type of course	Sample curriculum	AI technology empowerment point	Cultivate competency goals
Professional foundation module	Python data analysis	Automatic code review system	Programming basics, algorithmic thinking
AI + core module of e-commerce	Intelligent recommendation system development	User behavior analysis model	Algorithm design and system development
Business Practice Module	Live e-commerce operation practice	Live data dashboard	Traffic analysis, marketing strategy
Innovation and expansion module	Digital marketing start-up project incubation	Market forecasting model	Traffic analysis, marketing strategy

AI technology drives teaching innovation

The deep application of artificial intelligence technology in the process of talent training is the core difference from traditional school-enterprise cooperation. Coalition of colleges and enterprises has achieved a leapfrog improvement in teaching quality through AI-enabled scenarios.

(1) Intelligent teaching virtual simulation Personalized guidance is realized based on learning behavior data portrait. The system collects data such as code submission frequency, debugging time and error type distribution of students in the development environment in real time, through machine learning algorithm, the report of ability deficiency analysis is generated, and supplementary learning resources are accurately pushed. This data-driven teaching by aptitude promotes the improvement of learning efficiency and effectively solves the traditional classroom teaching problem of "Go side by side".

A digital twin training environment is built for high-risk practices such as e-commerce high-concurrency scenarios and marketing campaign planning. Students can configure server clusters, design promotions, and observe system performance in real time through stress test models in the virtual space. In the practice of "virtual factory" in school enterprises, the student team completed the whole process of operation from design, printing to production through full-link digital simulation, The feasibility of the scheme is verified in the form of "enterprise bidding-student bidding". This zero-cost trial and error mechanism greatly expands the boundaries of practice, making it possible to develop complex system development capabilities.

(2) Digital portrait of professional ability the multi-dimensional ability assessment model is introduced to break through the limitation of traditional test paper assessment. school-enterprise cooperation project collects multi-dimensional data such as students' technical ability development, team cooperation and communication ability,

and innovative thinking ability of the scheme, Generate a dynamic capability radar chart. This portrait not only serves as feedback for the learning process but also becomes a precise matching tool for enterprise recruitment. The employment matching degree of graduates using this portrait is greatly improved, and the training period of enterprises is shortened.

School-enterprise cooperation promotes the remodeling of e-commerce majors

Synergistic reconstruction of curriculum system

The school and enterprises have innovatively constructed a "three double" joint education mechanism (see Table 2) and an "course competition position" integrated course system transforms the real job ability requirements of enterprises into modular course groups.

(1) AI-driven collaborative education

Table 2 Triple double" joint design

dimension, dimensionality	mode of execution	Case support
Dual governance	The university and the enterprise jointly establish the training objectives and curriculum system of the industrial college	"Whole network real scene training room"
Dual mentorship	Enterprise engineers undertake practical courses, and university teachers participate in enterprise technology breakthroughs	"Teacher integration" mechanism
Two scenario practices	The AI studio on campus simulates the enterprise environment + enterprise internship	Build a "double base" for practice

(2) Project-based development of courses

Core courses of e-commerce majors are fully integrated into AI technology application scenarios. In the courses of "New Media Operation" and "Economic Management" jointly built by the school and the enterprise, Add user behavior prediction algorithm, content generation model and other practical links. Add user behavior prediction algorithm, content generation model and other practical links, Through the analysis of real business cases, students can master the whole process of AI-enabled marketing content creation. The course assignment requires the design of intelligent promotion plan around local characteristic products, and the excellent scheme can be directly applied to the actual operation of enterprises, The cooperation between universities and enterprises realizes the deep connection of "homework as business plan, classroom as post".

"Three-stage progressive" project training. Students start with modular micro-projects in their freshman year, such as using Python to crawl product reviews; To the development of subsystems in the second year, such as building personalized recommendation engine; Then to the comprehensive business projects in my junior year, such as designing intelligent marketing solutions for small and medium-sized enterprises. Students are provided

with desensitized business data from small businesses, so that students can face the challenges of traffic fluctuations, user behavior tracking and churn warning in real business environment. user behavior tracking and churn warning in the real business environment. Enterprises integrate big data AI algorithms and cloud computing technologies such as IaaS/PaaS/SaaS architecture to provide dynamic data dashboards and predictive models, In the mode of "data support-ability training-employment output", students are helped to simulate the formulation of marketing strategies and verify their effects, Strengthen data analysis capabilities to respond to real-time market changes.

Innovative design of practical training system

The training process is the most concentrated area of AI empowerment, Enterprises build a capability progression channel through the "job practice platform".

(1) AI+ Real Project Platform Classify the enterprise service requirements of digital platforms and import them into the teaching system. Under the guidance of "dual mentors" of university teachers and enterprise engineers the student team the student team completed the whole process of practical combat from demand analysis, technical solution to implementation and delivery. Summarize the Nanning Vocational and Technical College project, The intelligent marketing system integrates modules such as short video automatic generation and regional user portrait analysis to help enterprises improve their online sales experience. By integrating students into the process of creating real business value, their sense of professional identity and technical mission are greatly enhanced.

(2) Competition transformation and innovation platform Establish a mechanism for the transformation of achievements "promoting innovation through competition". The requirements of China's International "Internet Plus" College Students Innovation and Entrepreneurship Competition and other competitions are organically combined with the technical breakthrough needs of enterprises, The core algorithm is applied to the enterprise overseas promotion system. The competition not only exercises students' technological innovation ability, but also cultivates business thinking and team spirit.

(3) Training base rotation mechanism Implement the "rotating and alternating" training of "innovation workshop in school + enterprise practice center". We are committed to market demand orientation and promote interdisciplinary, cross-field and cross-level scientific and technological innovation and personnel training (Li, Zhu, & Xie, 2023) In the early stage, students master the tool chain and development process in the school base, and later enter the enterprise site for practical training (see Figure 1), Participate in the delivery of real customer projects. Enterprise engineers lead students to complete the "festival e-commerce promotion" system stability and other projects, The server resource allocation is optimized by the load prediction algorithm, and the technical challenges in the high-concurrency scenario are experienced. This kind of production environment immersion learning enables students to obtain the core technical experience that is difficult to reach in traditional internship.

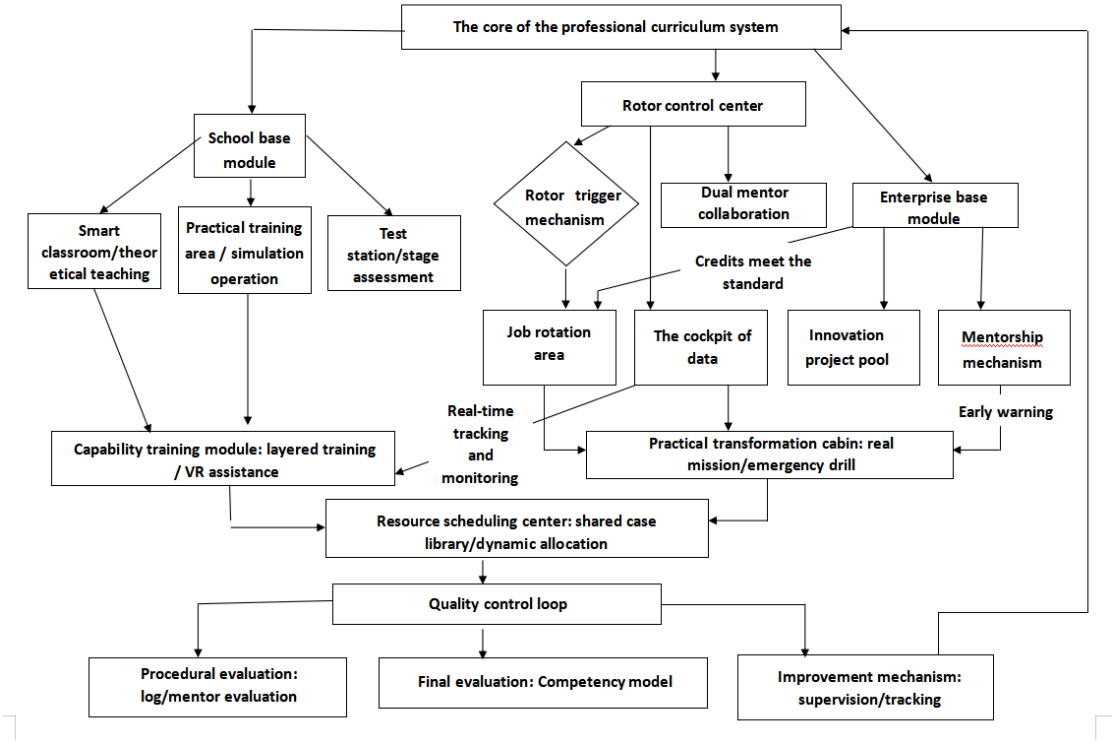

Figure 1 Double base rotation training process

Collaborative construction of teaching staff

In The dual-teacher team is the core element to ensure the quality of training. solves the problem of teacher transformation through the "school-enterprise linkage mechanism".

(1) Improvement of teachers' ability The dual-qualified team is the core factor to ensure the quality of training, and the "school-enterprise linkage mechanism" is used to solve the problem of teacher transformation. Establish a system of mutual appointment and periodic rotation training. On the one hand, university teachers can master the use and teaching ability of enterprise-level tool chains such as intelligent advertising system and user portrait analysis platform through the "AI Marketing Engineer Certification" of enterprises, Outstanding candidates can be promoted to the position of "Vice President of Technology" through assessment; On the other hand, enterprise engineers receive pedagogical methodology training, learn project-based teaching design and implementation skills, and are selected as "industry professors" of the college.

(2) Joint creation mechanism Regularly carry out special seminars on "technology feeding teaching". School-enterprise cooperative R&D team shared the latest technology trends in intelligent marketing, such as the application of generative AI in advertising creativity, and university teachers turned it into teaching cases and experimental projects. In the university enterprise visit and job expansion activities, the university and enterprises jointly developed cutting-edge courses such as "AIGC Digital Content Production", and timely transformed the technological evolution of enterprises into teaching resources.

Jointly build technical breakthrough teams to serve regional economy, which undertakes the digital marketing needs of small and medium-sized enterprises together with teachers and students, By helping enterprises to solve the pain points such as difficult promotion intervention and low operation transformation, Teachers have accumulated practical experience, and students have gained training in job projects, forming a benign progressive cycle of "teaching-production-innovation".

Evaluation standard docking

In order to give full play to the advantages of industry-education collaboration and comprehensively improve the quality of e-commerce talent training, it is necessary to continuously promote the reform of e-commerce education and build a new model of excellent training; Strengthen the quality assurance mechanism, empower e-commerce talent training; rely on project practice, hone the comprehensive quality of e-commerce talents.

(1) Ability certification system We will implement a dual-track evaluation system of academic certificates and skill level certification. Students are required to pass the "intelligent Marketing Engineer" job competency certification of the enterprise at the same time as they receive the degree certificate. at the same time as they obtain their degree certificates. The certification focuses on technical development such as algorithm implementation, system operation and maintenance such as platform deployment, and business analysis such as ROI evaluation, The design evaluation standard of its core ability makes the talent ability evaluation seamlessly connected with the employment needs of enterprises.

(2) Credit recognition mechanism Establish rules for converting project credits. Students who participate in enterprise e-commerce promotion system development and other projects can get "professional practice" course credits; Awards in provincial-level competitions can replace "innovation and entrepreneurship" credits; Enterprise technology certification can be converted into credits of relevant professional courses. This multi-element identification system, it effectively stimulated the enthusiasm of students to participate in the school-enterprise cooperation "integration of industry and education" project.

Implement challenges and coping strategies

The in-depth implementation of school-enterprise collaboration is faced with management challenges such as organizational barriers and unclear rights and responsibilities, which need to be solved by accelerating institutional innovation.

(1) Optimization of governance structure Establish a new ecology of "teaching, learning, research and management", and meet the educational needs in all scenarios and multi-terminal terminals, including teachers' preparation and teaching, smart classrooms, computer classrooms, etc., Cross-field and cross-level future technology and innovation workshop system, To build a more perfect new model of e-commerce education with Chinese characteristics, so as to solve the structural contradictions in the training of e-commerce talents under the background of scientific and technological revolution and meet the needs of innovative talents in the rapidly changing industry, and provide systematic solutions (Qiao & Gao, 2025)

Set up a "management and operation center" composed of management personnel from both sides of the university and enterprise to be responsible for cooperation plan formulation and resource allocation; To set up an expert committee composed of technical experts and professors to guide teaching and research activities; Establish

a working group for the integration of teachers and coordinate the construction of dual-teacher teams. This kind of "school-enterprise integration" governance ensures the professionalism of decision-making and the effectiveness of implementation.

(2) Dynamic adjustment mechanism Through the analysis of the two-level meeting system of quarterly review and annual strategy meeting, we will continue to optimize the cooperation content. Among them, the "quarterly meeting" focuses on solving specific problems such as the need to update training equipment, The annual meeting examines the match between talent training goals and industrial development, Adjust the major direction in time and add AIGC application course module.

Future outlook and optimization direction

The iteration of generative AI and other technologies accelerates, requiring the course update cycle to be shortened to about half a year. Therefore, it is necessary to establish a long-term mechanism of "dynamic balance and rapid response" between schools and enterprises; Add AI ethics modules such as user privacy protection and algorithm bias management to avoid the abuse of technology and the absence of ethics education.

Continuous investment in technical resources

The iteration speed of AI technology poses a severe challenge to the timeliness and advancement of teaching resources.

(1) Build cloud lab together The scheme of "enterprise providing platform + school supporting terminal" is adopted. The enterprise opens the educational edition of the intelligent marketing cloud platform to the cooperative colleges, and the school builds a basic cloud computing laboratory (see Figure 2). This model avoids the heavy investment of tens of millions of dollars and ensures that students have access to cutting-edge tool chains in the industry. Platform functions are updated in sync with the enterprise production environment. The resources of the university and the enterprise are constantly integrated and optimized, and the theoretical teaching and virtual classroom are connected, The integration of virtual and real, "learning, training, evaluation, research, competition and production" are integrated to cultivate new technical talents with all-round development (Ren, 2025)

(2) Teaching resource co-creation system We will jointly build an "AI+ course resource bank" and cooperate with enterprises to improve the knowledge production system. The enterprise provides technical documents and case templates, and the teacher team develops teaching guides and experimental projects, Students contribute to the innovation and application of practical projects, forming a sustainable and updated teaching resource ecology. In the school-enterprise cooperation project, Excellent student assignments are incorporated into the corporate knowledge base and turned into teaching cases.

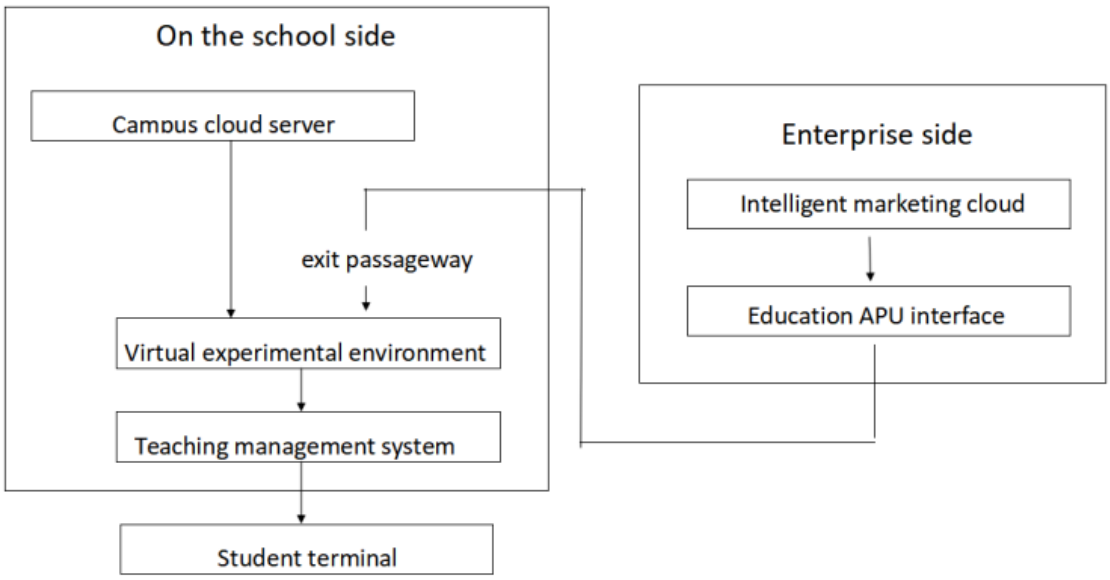

Figure 2 Cloud lab architecture

Deepening direction of technology integration

With the breakthrough of generative AI and other technologies, the school-enterprise collaborative training mode will develop in a more intelligent and personalized direction.

(1) Adaptive learning system Build personalized learning assistant based on large language model. Through the system analysis of students' code style, document writing habits, project design ideas and other multimodal data, Provide real-time programming suggestions, architecture optimization solutions and learning path planning. The "AI teaching assistant" system being explored by schools and enterprises can help teachers realize class situation identification, intelligent teaching diagnosis, and accurate learning situation monitoring. Through "AI assistance", students 'learning, skill deficiency analysis and learning resource recommendation are assisted , and students' operation safety assessment report is generated,[Innovation realizes the new integrated teaching mode of "AI+ teaching assistant, student aid, training aid and management aid" (Wang et al., 2025)

In order to realize basic functions such as class situation recognition and learning situation monitoring, In the future, it will develop into an intelligent partner covering the whole process of teaching, learning, practice and evaluation.

(2) Industry and education metaverse platform The metaverse is a collection of technologies integrated by various digital technologies, which constructs a virtual intelligent world (Yang & Song, 2022). that is highly integrated and linked with the real world. Combine digital twin and extended reality technology to build an immersive teaching space. Enterprises and universities jointly build virtual e-commerce industrial parks, Students participate in the whole industry chain from product design, intelligent production to digital marketing with the help of digitization. Drawing on a number of "digital economy innovation platforms" based on practical training scenarios such as 5G+AR remote maintenance and UAV inspection, we will build an "workshop" for intelligent teaching in the metaverse.

Synergistic upgrading of industry and education ecology

Break through the single school-enterprise cooperation mode and evolve to regional clusters and cross-domain collaboration.

(1) City-wide industry-education consortium According to the indicators of municipal industry-education consortium construction in the Notice of the General Office of the Ministry of Education on the Construction of Municipal Industry-Education Consortium, Referring to successful experiences, we will cooperate with local governments, industry associations and upstream and downstream enterprises to build a regional digital talent training alliance. Schools and enterprises form an ecosystem integrating "education chain, industrial chain and innovation chain", providing students with practical scenarios covering the whole e-commerce industry chain.

(2) International talent training Relying on overseas enterprise resources for enterprise services, a cross-border practice channel will be established. Explore the inclusion of cross-border e-commerce operation into the training system, Student teams can participate in overseas market analysis, multilingual intelligent customer service system development, cross-border payment interface docking and other globalization projects, To cultivate compound talents with international vision and technical ability.

Lifelong education system connection

In the context of accelerated iteration of AI technology, school-enterprise collaboration extends to the whole cycle of career development.

(1) Alumni Competency Preservation Program Establish a technical tracking system for graduates. Enterprises open platform update logs, technical white papers and other resources to the alumni of cooperative colleges and universities. Regularly push industry technology dynamic reports. Excellent alumni can return to the university to participate in the "technology workshop" and share their practical experience in the industry, forming a sustainable development link of "learning-employment-feeding back".

(2) Construction of micro certification system In view of the rapid iteration characteristics of AI technology, modular skill certifications are introduced. Specialized competency certifications, such as "Large Language Model Application Development" and "Cross-platform Intelligent Customer Service Deployment", help employees continuously update their knowledge structure. This "academic education + micro certification" hybrid mode will become the mainstream form of education to cope with technological change.

Conclusion

The practice of school-enterprise cooperation shows that: shows that the collaborative training mode enabled by AI can effectively solve the structural contradiction between supply and demand of E-commerce talents. Through the reconstruction of curriculum system, innovation of training ecology and breakthrough of evaluation mechanism, the deep integration of technical ability and business quality has been realized. Its core value lies in building a sustainable AI+ education ecosystem in which "education empowers industry and industry feeds back to education", so that talent training and technological innovation form a positive cycle.

AI is not merely a teaching tool—it serves as a "connector" that redefines the relationship between industry and education. In the future, we need to use the symbiotic system thinking of "technology, system and ecology" to lead education from knowledge transmission to innovation and reform.

With the deep integration of "AI+ education" technology, school-enterprise collaboration will develop in a more intelligent, personalized and lifelong direction. In view of the requirements of new engineering and the current situation of diversified E-commerce teaching, we adhere to the teaching plan of "theory + training + project", and comprehensively complement the advantages of industry and education, share the interests of various parties, and develop talents in an all-round way (Zhou, 2024) Only in this way can the educational potential of AI be truly released and compound E-commerce talents adapted to the upgrading of digital economy industry be cultivated.

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References

Cheng, Y., Liu, Y., & Liu, W. (2025). The technological foundation, mechanism of action, and future directions of metaverse in empowering talent cultivation in higher education institutions. *Journal of Fuyang Normal University (Natural Science Edition)*, *42*(1), 96-103. doi:10.14096/j.cnki.cn34-1334/n.2025.03.013

Du, X., Fu, X., Wang, Y., et al. (2025). Teaching reform of introduction to software engineering in the new engineering context. *Computer Education*, (5), 100-104. doi:10.16512/j.cnki.jsjjy.2025.05.027

Han, T., & Liu, Y. (2024, November 30). School-enterprise "marriage" symphony of integration and mutual promotion. *Guangming Daily*.

Han, X., Pan, S., & Wang, Y. (2024). The practice of the 'class-position alignment', 'class-certificate integration', and 'class-competitive integration' teaching models in the film and television post-production synthesis and production course. *Linqu Teaching*, (7), 54-58.

Li, Y., Zhu, G., & Xie, M. (2023). Exploring a collaborative AI innovation talent cultivation model for schools and enterprises based on PaddlePaddle. *Computer Education*, (12), 49-53.

Qiao, S., & Gao, Z. (2025). Artificial intelligence empowering school education reform: Value, limits, and practical approaches. *Journal of Zhejiang Normal University (Social Sciences Edition)*, (4), 101-109. Retrieved from http://kns.cnki.net/kcms/detail/33.1011.c.20250619.1013.006.html

Ren, L. (2025). The realistic dilemma and countermeasures for cultivating outstanding engineers through industry-education integration. *Journal of Hubei University for Nationalities (Philosophy and Social Sciences Edition)*, 1-10. doi:10.13501/j.cnki.42-1328/c.20250611.002

Wang, K., Wang, L., Lin, J., et al. (2025). Exploring new transformations and models of engineering education in the digital intelligence era. *Research on Science and Education Development*, *5*(1), 13-37. doi:10.20105/j.cnki.jstes.2025.01.001

Yang, Q., & Song, W. (2022). An exploration of the optimal scheme for cooperation between schools and enterprises in computer talent training in the era of artificial intelligence. *China Education Informatization*, (7), 34-38.

Zhou, K. (2024). Research on the construction of a six-in-one trade training base integrating production, learning, research, innovation, competition, and service. *Talent Intelligence*, (26), 189-192.