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Disruptive Teaching of Generative AI: Reconstructing the Framework of E-commerce Capabilities through the Integration of industry-academia Knowledge

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Abstract: Against the backdrop of the rapid development of generative artificial intelligence, higher education, especially the teaching of applied majors, is undergoing profound changes. As a typical compound digital industry, the e-commerce industry has put forward higher requirements for the capabilities of talents. The traditional teaching mode is difficult to meet the current needs of cultivating new types of talents. This article focuses on the innovation of teaching models driven by the dual wheels of generative AI and the integration of industry-academia knowledge, and explores how to systematically reconstruct the framework of e-commerce teaching capabilities through intelligent means. The research has proposed an "e-commerce capability teaching model" covering three major dimensions: cognition, operation and innovation. By introducing real scene tasks from enterprises and building a human-machine collaborative teaching mechanism, it achieves a precise match between teaching content and industry demands. Meanwhile, by combining empirical cases of cooperation between universities and e-commerce enterprises, the improvement effects of generative AI on students' ability growth, project practical performance, and course adaptability have been verified. Finally, through the analysis of the challenges in current AI education practices, the research proposes specific paths for further promoting the integration of industry and academia and optimizing the AI teaching ecosystem, with the aim of providing an innovative paradigm for the intelligent transformation of education and the supply of e-commerce talents.

Key words: Generative AI,E-commerce education,Integration of industry and academia,Intelligent teaching

1. Introduction

With the rapid iteration of generative artificial intelligence technology, its application in the field of education is gradually moving from an auxiliary tool to a deep integration in the teaching process. Since technologies such as GPT, Claude, and text-to-image have come into the public eye, AI not only possesses capabilities like text generation, knowledge integration, and language understanding, but also can dynamically generate learning content based on individual characteristics, provide immediate feedback, and simulate scenarios, thereby reshaping the design logic of educational content and the way teaching is organized. Especially in higher education, generative AI is profoundly transforming the fundamental models of information transmission, knowledge acquisition and ability assessment, providing a practical path for intelligent teaching and also posing brand-new requirements for educators and learners.

In tandem with this, the e-commerce industry is undergoing a transformation in its talent structure. As a typical compound and data-driven industry, e-commerce is constantly attracting new types of talents who integrate multiple capabilities such as content creation, data operation, and product strategy. However, at present, the teaching mode mainly based on theoretical instruction and case analysis is still widely adopted in colleges and universities. There is a lack of ability training mechanisms that are in line with actual business scenarios. Problems such as lagging course content updates, fragmented skills training, and a lack of innovation ability are prominent, which leads to students' adaptation predicament of "having sufficient understanding but insufficient practical experience" after graduation and entering the workplace. Therefore, how to construct a capability cultivation path that can not only match the development pace of the e-commerce industry but also fully leverage the advantages of generative AI has become a key issue in the current educational reform.

Against this backdrop, the significance of integrating industry and academia is

increasingly prominent. Through in-depth collaboration between universities and enterprises, not only can cutting-edge business demands and real-world scenario tasks be incorporated into course design, but also the technical support and data resources of enterprise platforms can be utilized to promote the timely update and practical implementation of teaching content. Especially after the intervention of generative AI, the boundary between education and industry has become even more blurred. AI can break down enterprise tasks into teaching units, enabling learning and doing simultaneously. It can also transform students' learning outcomes into usable content or strategic suggestions for enterprises, achieving a "win-win" cycle mechanism for both industry and education. Therefore, promoting the integration of industry and academia and the coordinated development of AI technology is the inevitable path to achieving the structural reconstruction of e-commerce education. Based on this, this paper focuses on the application of generative AI and the integration of industry-academia knowledge. By sorting out the deficiencies of the traditional e-commerce teaching ability model, it proposes an "e-commerce ability teaching model" covering three dimensions: cognition, operation, and innovation. Further, at the teaching organization level, it explores the intelligent teaching construction path of intelligent course design, human-computer collaborative teaching, and flexible evaluation mechanism. With the aim of providing application samples for the intelligent transformation of higher education and an innovative model for sustainable development in the cultivation of e-commerce talents.

2. A teaching framework for generative AI-driven e-commerce capabilities

2.1 Problem Analysis of the Existing Teaching Framework for E-commerce Competence

In the traditional framework of e-commerce education, talent cultivation mainly focuses on areas such as operation management, marketing, product development, and customer service. Although these capability modules cover the basic operations of the e-commerce industry, with the digital and intelligent development of the industry, the traditional education system has failed to effectively cope with the rapidly changing demands and has many limitations. Especially with the rise of emerging capabilities such as data analysis, artificial intelligence, and innovative thinking, the current

teaching content has not fully met the multi-dimensional requirements of the e-commerce industry for talents. On the one hand, traditional e-commerce education relies more on textbooks and case analyses, neglecting the cultivation of students' ability to solve problems in real business scenarios. On the other hand, the update cycle of teaching content is relatively long, making it difficult to keep pace with the technological innovation and changes in market demand in the e-commerce industry. Due to the relatively monotonous course design, the "innovation ability", "data analysis ability" and "cross-disciplinary application ability" in e-commerce education are often lacking, which leads to students often feeling a huge gap between their skills and the demands when facing actual work after graduation.

For instance, current e-commerce courses often focus on imparting knowledge points such as platform operation and basic market analysis skills, while training on how to apply generative AI in actual operations for content creation, data insight, and strategy optimization is relatively weak. Furthermore, the teaching evaluation mechanism of traditional courses mainly relies on standardized tests or reports, which makes it difficult to accurately assess students' comprehensive abilities in complex problem situations and lacks consideration of students' innovative capabilities and real-time adaptability. Therefore, how to introduce a more diverse, flexible and innovative ability framework into the e-commerce education system has become an urgent problem to be solved. Against this backdrop, the introduction of generative AI provides new ideas and technical support for the reconstruction of the framework of e-commerce education capabilities.

2.2 Reconstruction of the Capability Framework Empowered by Generative AI

Against the backdrop of insufficient compatibility between the current e-commerce capability teaching framework and the current educational needs, generative AI, with its powerful text generation, data analysis, and automated processing capabilities, is bringing new opportunities for the innovation of e-commerce education. Based on the technical characteristics of generative AI, this paper proposes a brand-new e-commerce education capability framework - the "cognitive-operation-Innovation" three-dimensional model, aiming to construct the core capabilities of e-

commerce talents from multiple dimensions and fully adapt to the demands of industry development. The model is shown in Figure 1.

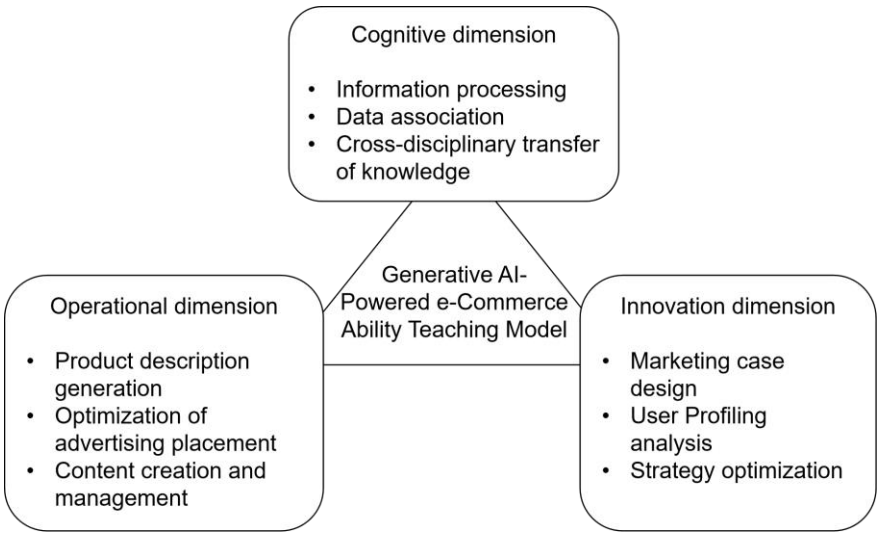

Figure 1 The capability framework empowered by generative AI

2.2.1 Cognitive Dimensions

Cognition is the starting point of ability construction. In traditional e-commerce education, cognitive learning usually relies on textbooks, lecture notes or pre-set courseware, with relatively closed knowledge sources and lagging updates. Students often find themselves in a passive position in information processing, cross-disciplinary understanding, and the absorption of new concepts, lacking timeliness and depth. Generative AI, through large-scale pre-trained models, possesses powerful capabilities in knowledge organization, semantic association and text generation, providing a brand-new path for cognitive learning. AI can dynamically push learning resources based on students' interests, existing foundations and learning goals, and constantly adjust the expression methods and content structures during the interaction process, thereby constructing a cognitive path that is both flexible and profound. More importantly, AI has broken away from the static teaching mode in traditional education and supports students to conduct exploratory and generative cognitive construction based on problems. This learning model is more in line with the future talent demand orientation. Specifically, students can complete the following tasks with the assistance of AI during the learning process.

Knowledge association: For instance, when "private domain operation" is input,

AI can automatically extend related concepts such as "user retention", "community expansion", "refined tag management", etc., building a semantic network structure and helping students think systematically beyond the structure of textbooks.

*Text understanding:*By leveraging the semantic recognition capabilities of AI models, students can quickly grasp complex e-commerce regulations, platform algorithm logic, or cutting-edge research literature. Through AI-generated summaries, key term analysis, or associated question answering, they can achieve a cognitive leap from "understanding" to "using well".

Cross-disciplinary transfer: AI possesses the ability to integrate knowledge from multiple disciplines, assisting students in introducing knowledge from behavioral economics, communication studies, data science, and other fields into e-commerce scenarios. For instance, it can optimize placement design through the "selective attention" theory and enhance scenario-based application capabilities. The intelligent upgrade of this cognitive dimension breaks through the limitation of "what is learned is what is known", and instead promotes the substantive transformation of "what is learned is what is used", which is the most fundamental and important link in the empowerment of AI education.

2.2.2 Operational Dimensions

The work pace in the e-commerce industry is fast, the types of tasks are diverse, and the platform environment is complex. This requires students not only to "know what", but also to "be able to do what". Traditional skills teaching mainly focuses on demonstrations or practical operation classes on platforms. Due to limitations such as equipment, authority, and the frequency of case updates, students' operational abilities often remain at the surface simulation stage, lacking training in real tasks. Generative AI brings about the possibility of immediate, high-frequency and low-threshold virtual practice, injecting a new mechanism of "dynamic simulation + intelligent feedback" into skills training. AI technology can automatically break down teaching tasks into several executable sub-tasks and provide auxiliary prompts, strategy suggestions and multi-round feedback, enabling students to gradually acquire the logic behind the skills and find room for optimization while completing the tasks. This human-machine

collaborative training mechanism effectively enhances students' depth of mastery and transfer ability of operational skills, while also stimulating their learning initiative. Students can complete the following operation-level task training through AI.

Product description generation training: After inputting the basic attributes of the product, the AI can quickly generate product description copy in various styles, lengths, and emotional tendencies, and adjust the language strategy according to the differences of the Taobao/Douyin platforms to assist students in training their ability to write product content.

Advertising placement optimization: AI can simulate advertising placement platforms, analyze indicators such as CTR and CVR, and based on test results, propose optimization suggestions. Students can repeatedly try and make mistakes and distill the thinking of placement strategies from the feedback.

Content management execution: such as activity page construction, best-selling product layout, evaluation response strategies, etc. Students complete high-frequency tasks in the AI simulation platform and can call on AI suggestions for copywriting polishing and visual layout optimization to improve content quality.

Through repeated interaction with AI, students are no longer passive imitators of skills, but active builders who constantly debug, reflect and iterate, truly achieving a leap in ability from learning skills to applying them.

2.2.3 Innovation Dimension

When cognitive and operational abilities have initially taken shape, whether a student possesses the capacity to formulate strategies and execute innovatively determines their core competitiveness in the workplace. Innovation, however, is precisely the most challenging aspect to cultivate in traditional e-commerce teaching. Students are often confined to reproducing existing cases and lack the space to independently generate solutions in an uncertain environment. The value of generative AI in this dimension lies in that it not only provides support for the conception of strategies but also assists students in identifying opportunity points, verifying hypotheses, and conducting experimental optimizations at the data level, thus building a complete chain of innovative tasks. Through scene setting, data generation and multi-

round reasoning, AI enables students to conduct creative divergent thinking, strategy simulation and effect evaluation in a "realistic + low-risk" experimental environment, thereby effectively enhancing their systematic innovation ability and practical transformation ability. Specifically, in the dimension of innovation, AI can assist students in achieving the following learning goals.

Strategy design: AI can automatically generate different strategy drafts based on marketing themes, festival nodes, and customer group characteristics, such as price promotions, content seeding, and influencer collaborations. Students complete the corresponding strategy construction training through simulated strategy evaluation and plan design.

User profile analysis: After inputting user behavior data, AI can intelligently analyze user paths, interest tags, payment capabilities, etc., generate profiles of segmented groups, and assist students in making precise marketing designs and product recommendation decisions.

Marketing experiment setup: AI can support students in building A/B testing plans, conducting multiple comparisons of various advertisement versions, content styles or interaction strategies, and providing real-time feedback on estimated effects, thereby enhancing academic data verification awareness and strategy iteration capabilities.

Generative AI enables innovation to no longer rely on talent and experience, but rather shift towards methodological drive and data support, endowing students with systematic capabilities to turn their ideas into feasible solutions. This closed-loop practice mechanism from idea to model and then to feedback optimization enables innovation training to truly move from the classroom to the real business demand site.

3. Reconstruction of E-commerce Teaching Models empowered by Generative AI

Based on the new e-commerce capability teaching framework constructed with generative AI, this study further explores how generative AI systematically reconstructs the e-commerce teaching model from three dimensions: intelligent course design, human-machine collaborative teaching, and personalized assessment mechanism, combined with cases of industry-academia integration.

3.1 Reconstruction of Intelligent Curriculum Design

The greatest impact of AI on course design is not only its resource-assisted function, but also its redefinition of the composition logic and evolution mode of course content. In traditional e-commerce teaching, the course content is usually based on annual textbooks, established teaching syllabuses and platform operation norms. The update cycle is long and the flexibility is poor, making it difficult to keep pace with industry hotspots, new platform policies or changes in consumer behavior. The introduction of generative AI makes it possible for real-time knowledge and structural capabilities to run in parallel.

Firstly, at the content level, AI has a powerful ability to capture information and compress content, and can dynamically adjust course knowledge points based on platform rules, e-commerce hotspots, popular marketing strategies, etc. For instance, when teaching the "content seeding strategy", AI can analyze in real time the highly popular short videos, live-streaming script templates and conversion path designs on the Douyin platform, assisting teachers in integrating the latest gameplay into the course without having to wait for the textbook to be revised. Secondly, in terms of course structure, AI helps to build a more task-driven "module + task + project" system. The course is no longer explained around chapters but is constructed around real problems. For instance, the module is for the growth of private domain users, the task is to build a community operation content matrix, and the final project is to design a user retention mechanism based on AI-generated Sops. This structure is closer to the work process of real positions and is more conducive to the phased and hierarchical cultivation of capabilities. In addition, AI technology itself has also become a part of the teaching toolchain. Tools such as GPT, Notion AI, Copilot, Mixo, and Shopify plugins are embedded in e-commerce teaching. While students complete tasks, they gradually acquire the ability to use AI tools to solve complex problems. For instance, in the advertising material design course, students can use GPT to generate advertising copy of different styles, use image generation tools to build visual content, and ultimately form a complete material package. AI has transformed from a tutoring tool into a "second brain", endowing students with the ability to generate content and strategies.

3.2 Reconstruction of Human-Machine Collaborative Teaching Methods

The introduction of generative AI not only alters the structure of teaching content but also profoundly changes the human-computer interaction relationship in the classroom. In the AI-enabled teaching field, teachers are no longer the sole information transmitters but the designers of teaching tasks and thinking paths. Students are no longer passive recipients but the constructors of knowledge generated through dialogue with AI.

Firstly, the role of teachers has undergone an essential transformation. In the past, teachers were responsible for the leading tasks of lecturing and answering questions. However, with the entry of AI into the classroom, teachers should shift more towards the role of "AI collaborative guides". Specifically, teachers need to possess the ability to design tasks and be capable of constructing task paths that conform to the interactive logic of AI in line with the course objectives, such as "Please ask GPT to generate a template for extracting product selling points based on user portraits", or "Design a set of live-streaming script optimization experiments that AI can participate in the evaluation". In addition, teachers also need to have the ability to monitor the process, analyze students' learning paths, interaction frequencies and the quality of generated content with the assistance of AI, and provide timely guidance and correction. Meanwhile, students' learning methods have undergone fundamental changes. Under the human-machine collaborative model, students gradually transform from traditional knowledge receivers to AI interactors. They need to learn how to ask questions, how to adjust prompt words, and how to evaluate the quality and applicability of AI-generated content. The learning process itself becomes a complex interaction with AI. In teaching activities, human-computer interaction also runs through the entire process. Take "brand short video marketing" as an example. Students can first use GPT to generate a draft script, then refine the language and adjust the style. Finally, they can build the cover image and visual script with the help of an AI visual platform. During this process, teachers will point out the logical loopholes and emotional expression deviations in the script, truly achieving the trinity synergy of "AI support + human guidance + student co-creation". Overall, AI does not replace the teaching relationship but rather makes it

more diverse, distributed and feedback-oriented, providing a practical path for building a decentralized and student-centered new type of classroom.

3.3 Reconstruction of Learning and Evaluation Mechanisms

With the support of generative AI, the learning process can shift from the traditional fixed rhythm of a unified path to a new dynamic generation mechanism of personalized customization. This transformation is not only an improvement in efficiency but also a profound response to the evaluation mechanisms of educational equity, adaptability and creativity.

Firstly, in terms of the learning path, AI can dynamically plan the learning path based on the student's ability map, course performance and interest preferences. When students first enter the platform, they can self-assess their abilities through AI. Based on this, AI recommends corresponding modules and sets different task difficulties. For instance, for students with weak basic abilities, the system recommends case learning and task imitation as the main methods, while for those with mature abilities, they will enter the project practice and AI strategy collaboration module to achieve a personalized learning structure for each individual. Secondly, in terms of the evaluation mechanism, AI can work with teachers to jointly build a multi-dimensional evaluation system that combines generative orientation with ability orientation. No longer using a single test or report as the basis for measurement, but by analyzing the depth, logical structure, strategic nature and expressive tension of the content generated by students, an evaluation closed loop that emphasizes both process and outcome is formed. For instance, in a course task on "AI-Assisted E-commerce Product Selection", the teacher could use AI to analyze the logical consistency, market basis and strategic completeness of the product selection reasons generated by the students, and then score them in combination with the students' operation process. Eventually, a "Comprehensive Ability Radar Chart" was generated to precisely feedback the learning effect. In addition, the course objectives themselves have become adjustable. AI can dynamically adjust teaching goals based on students' ability growth performance at different stages. This flexible teaching mechanism breaks through the traditional thinking of unified goals and batch promotion, and builds a new learning ecosystem centered on students' growth

and guaranteed by AI intelligent support.

3.4 Practical Case Analysis

To truly achieve the in-depth application of generative AI in e-commerce teaching, it is necessary to transform it from an experimental tool into a real task system. Only by embedding the AI teaching logic into enterprise practices and industry tasks can a teaching paradigm that is both implementable and replicable be established. This section showcases the "industry-education-technology" integration path and practical achievements of AI empowering e-commerce education through two typical cases.

3.4.1 Cases of Joint Construction between Universities and Platforms

In 2024, Zhejiang University of Media and Communications, in collaboration with Taobao, a subsidiary of Alibaba, jointly launched an experimental class on "AI+ E-commerce Operation Strategy Design", with the aim of establishing a teaching sample that combines real enterprise issues with the training of AI tool capabilities in universities. The experimental class is open to junior and senior students and lasts for one semester. The core task line is "How to increase exposure and conversion in the 30-day cold start of a new store on the platform". The course is designed as a "three-stage" progressive teaching method. In the first stage, students learn the latest platform operation rules through GPT-4 assistance, such as content priority adjustment, image and text weight mechanism, store growth system, etc. Teachers guide students to use AI to build "cold start product portraits", "Target audience breakdown tables" and "grass-planting path diagrams". During this process, students familiarize themselves with the logic of AI dialogues through prompt word debugging, and at the same time master the boundaries of AI content generation capabilities and quality control methods. In the second stage, teachers and enterprise mentors jointly formulate phased operation tasks. For instance, students need to use GPT and Canva to generate 10 text and image scripts and 3 short video scripts, and combine the Taobao data analysis plugin to create a content distribution plan. During this period, AI not only helps with copy design, tag selection, and content structure optimization, but also supports students in script comparison and style testing.

In stage three, students list simulated products in real sandbox stores and complete

content release, user interaction, and placement adjustment through GPT-supported placement assistants and AI customer service simulators. Teachers and platform mentors jointly assess students' content strategies, script responses, and user analysis capabilities. At the same time, the strategy summaries and data reports generated by GPT are used as the project's final outcome. The course ultimately presented the students' achievements through online live review. Some of the works were recommended to the platform's incubation project team for reference. The experimental class received a good response. Subsequently, it is planned to set up parallel classes with Douyin E-commerce to build a platform-integrated teaching network.

3.4.2 Enterprise e-commerce Customer Service Training Case Based on Generative AI

In 2024, a medium-sized e-commerce company mainly engaged in beauty products in Guangzhou conducted a full-staff customer service training before the mid-year promotion. The training objective focused on "user communication strategies and script optimization during high-pressure sales periods". The enterprise has chosen to introduce a "Customer Service Script Generation and Practice Platform" custom-developed based on the GPT-4 API, with AI acting as the simulated user, and employees conducting response training through human-computer dialogue. The entire training is set up in two stages. On the one hand, each employee completes five rounds of AI dialogue simulation every day, covering typical customer service difficulties such as "product ingredient doubts", "logistics complaints", "price suppression", and "user hesitant decision-making". AI will generate immediate scores and optimization suggestions based on dimensions such as the logical clarity of employees' scripts, the effect of emotional comfort, and the language used for transformation and guidance. On the other hand, through the analysis of the dialogue in stage one, the AI system automatically customizes a customer service script improvement map for each employee and generates directly referable response corpora. Based on this, the employees rewrote the customer service response script and conducted another simulation exercise. The enterprise mentor and the customer service supervisor jointly review whether the script has the consistency of the brand tone, the intensity of

emotional comfort and the power to promote orders.

4. Challenges and Countermeasures of AI Reshaping E-commerce Capabilities

Generative AI is profoundly reshaping the e-commerce education model, but in its application process, it has also exposed multi-dimensional challenges such as teachers, students, technology, and systems. To achieve the sustainable integration of AI and education, it is urgent to propose corresponding countermeasures at the institutional, mechanism, and platform levels to form a virtuous ecosystem of teaching innovation.

4.1 Realistic Challenges

Against the backdrop of the rapid integration of generative AI into e-commerce education, universities are confronted with a series of structural challenges in the actual teaching promotion, mainly focusing on three aspects: teacher matching, technical ethics, and student ability cultivation. Firstly, the ability structure of teachers has not yet fully adapted to the AI-enabled teaching methods. Most teachers lack systematic training in the operation of AI tools, the underlying mechanisms, and teaching integration methods. As a result, they often find it difficult to take on the new roles of "task designers" and "AI collaborative guides", leading to the use of AI in teaching remaining superficial and unable to achieve deep integration. Secondly, AI-generated content remains in a gray area in terms of copyright ownership, data sources, and the legality of model training. Especially when students use AI to complete assignments or project outcomes, the difficulty of evaluating its originality and participation increases significantly. At the same time, the content generated by AI may contain biases, sensitive information or inaccurate content, posing potential risks to data ethics and fairness. Finally, students tend to develop a dependent mentality in AI-assisted learning, gradually weakening the training of independent thinking and critical cognition. Some students tend to directly entrust tasks to AI, ignoring the process of logical construction and expression processing, which in turn affects their critical thinking and adaptability in actual working scenarios. These issues are intertwined, posing brand-new challenges for colleges and universities to build a competency-oriented education system.

4.2 Specific suggestions for Promoting Industry-academia Integration and Technological Innovation

When addressing the challenges such as teaching staff, ethics and student capabilities that arise in the process of generative AI empowering e-commerce education, it is necessary to make simultaneous efforts in four aspects: system, evaluation, platform and ecosystem, to form a sustainable educational innovation mechanism.

First, improve the institutional design and promote the institutionalization and implementation of the school-enterprise co-creation mechanism. Colleges and universities should break the traditional teaching closed loop centered on the classroom and systematically introduce real enterprise projects into course teaching as the basis for assessing students' learning outcomes. For instance, taking the operational tasks, market analysis or content planning projects provided by enterprises as teaching tasks, allowing students to use AI assistance to complete planning and execution in real scenarios, thereby enhancing the practical value of task-driven learning. Meanwhile, an "industry joint laboratory" can be established as an interface platform between teaching and the industry. Enterprises can continuously provide data, scenarios and standards, while schools can design courses and iterate methods, achieving dynamic interaction between course content and industry demands. Institutionally, mechanisms such as project credit certification and performance evaluation for teachers' industry-academia cooperation should be established to ensure the true implementation of industry-academia integration.

Second, optimize the capability evaluation mechanism and promote an intelligent assessment model that integrates AI and human collaboration. In the face of the challenges brought by AI to the reconstruction of the learning process, the traditional result-oriented assessment methods can no longer accurately evaluate students' true ability performance. It is suggested that universities establish a hybrid evaluation system of "AI automatic assessment + teacher humanistic judgment". AI is responsible for objectively evaluating the language accuracy, data logic, and structural integrity of student-generated content, while teachers focus on assessing the uniqueness of creativity, depth of expression, and user understanding. Meanwhile, by leveraging the AI platform to record students' operation trajectories, optimization frequency, prompt

design and other process data, a "capability growth portrait" is generated to dynamically track learning outcomes and provide quantitative support for employment recommendations or entrepreneurial projects after graduation. This process data-oriented evaluation approach will be more in line with the educational goals of individualized development and ability-oriented.

Third, jointly build a teaching platform and promote a standardized system for the output of course content and resources. Colleges and universities should deeply cooperate with AI technology enterprises to jointly build exclusive educational platform systems, unify data interfaces, invocation standards and teaching module structures, and solve the current fragmentation problem of AI tools in teaching. At the same time, efforts should be made to develop a modular and portable "generative AI teaching package", which includes a Prompt template library, case task sets, automatic scoring criteria, ability training paths, and other contents. Through these standardized resource packages, AI courses can be shared and reused among different disciplines and schools, enhancing the efficiency and coverage of teaching resources. For instance, for the position of "live-streaming e-commerce operation", universities can provide a full-process AI teaching plan from content planning to data analysis, enabling rapid migration and local adjustment among students of different majors.

Fourth, establish a tripartite collaborative ecosystem among universities, enterprises and platforms to build a closed loop of teaching innovation. A tripartite collaborative ecological mechanism with "task-driven + platform support + feedback optimization" as the main line should be established: enterprises are responsible for providing real problems and data resources from the front line as the source of teaching content; Colleges and universities are responsible for designing teaching objectives, course structures and practical paths, and guiding students to complete project-based learning. The AI platform provides technical support and algorithm optimization to ensure the stability and controllability of the generated tasks. Through collaborative development of courses, joint construction of platforms and joint evaluation of projects, the three parties can not only achieve real-time updates of teaching content, but also continuously optimize platform functions and teaching methods through feedback

mechanisms, ultimately forming a dynamic and self-driven "teaching-practice-optimization" closed-loop ecosystem.

5. Conclusion

As the technological engine of the new era, generative AI is deeply reshaping the content form, teaching methods and ability standards of e-commerce education. From the transformation of teachers' roles to the shaping of students' abilities, from institutional design to ecological collaboration, this study systematically explores the practical logic, real challenges and optimization paths of AI technology in the e-commerce education scenario. Research shows that the value of AI lies not only in enhancing efficiency but also in stimulating the potential for teaching innovation and cross-border integration. In the face of multiple issues such as lagging adaptation of teachers, lack of ethical norms, and passive thinking of students, it is necessary to break away from the mindset of AI tools and build a new educational paradigm that is ability-oriented, data-based, and cooperation-supported. Only through the collaboration of school-enterprise platforms, the improvement of systems and mechanisms, and the innovation of diversified evaluation can the educational vision of "AI as a supplement and education as the foundation" be truly realized, and can e-commerce education continue to thrive in the intelligent era.

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