

Discussion on the Talent Cultivation Model for Marketing Majors in the Digital-Intelligence Era

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Abstract: In the digital intelligence era, the cultivation of marketing professionals presents three major statuses: deepening integration of industry and education, digital and intelligent transformation of courses, and the construction of "double-qualified" teachers. However, there are still core problems such as curriculum lagging behind technological iteration, weak digital literacy of teachers, and superficial industry-education collaboration. To address these pain points, the improvement paths should focus on three aspects: first, constructing a dynamic curriculum system of "AI + real projects" by embedding AIGC tools and interdisciplinary knowledge graphs; second, building an empowerment system for "double-qualified and dual-capable" teachers to bridge the capability gap through immersive technical practice and on-campus enterprise mentors; third, deepening scenario-based practical industry-education integration, promoting capability symbiosis through intelligent supply chain replication and the integration of competitions and employment. Essentially, it is to take technology as the axis and industry-education as the vein, realizing a fundamental transformation from knowledge imparting to digital intelligence decision-making ability.

Keywords: Digital intelligence era; Marketing major; Training mode.

1. Current Situation of Talent Training Mode for Marketing Major in the Digital Intelligence Era

1.1. Deepening Integration of Industry and Education and Popularization of School-Enterprise Collaborative Education Mechanism

The core trend in the current cultivation of marketing professionals is to build a mechanism for deep integration of the "education chain and industrial chain" through school-enterprise cooperation. Typical models include the joint establishment of industrial colleges, practical training bases, and the integration of real enterprise projects, aiming to address issues in traditional education such as the lack of practical scenarios and skills lagging behind industrial demands. For example, Inner Mongolia Vocational College of Commerce and Trade has co-founded a Digital Business College with JD.com. Based on the characteristics of Inner Mongolia's agricultural and specialty products and cross-border e-commerce, it has built training platforms for intelligent warehousing and live-streaming e-commerce, simulating the operation scenarios of JD.com's "Asia No. 1" intelligent warehouse, thus forming an integrated ecology of "learning-teaching-practice" [1]. Guangzhou Huashang Polytechnic, in collaboration with Tanjie Technology, has designed a closed-loop system of "curriculum learning + AI training + real projects + talent certification". Through practical experience in enterprise-level digital marketing projects, it directly connects with job skill certification and employment recommendations. Such cooperation not only covers professional directions such as intelligent logistics and digital marketing but also delivers talents through "green channels", leading to a significant increase in the employment rate of graduates in the past three years [1]. However, the depth of cooperation is still limited by insufficient motivation

of enterprises to participate and barriers in resource matching. Some institutions only stay at the level of internship bases and have not yet formed a sustainable mechanism for technology sharing and curriculum co-research [2-3].

1.2. Intelligent and Digital Reconstruction of Curriculum System and Integration of Interdisciplinary Competences

To respond to the iteration of digital marketing technologies, institutions are systematically reconstructing their curriculum systems. The core approaches include embedding technical modules into traditional courses, adding new digital and intelligent courses, and integrating interdisciplinary knowledge. On the one hand, core courses such as Marketing and Consumer Behavior are incorporating content like big data analysis and the application of AI tools, such as using Python for market data cleaning and generating marketing plans through AIGC [4]. On the other hand, new courses like Digital Marketing Simulation Training and Integration of AI Marketing Technologies have been added to strengthen practical abilities in areas such as intelligent advertising placement and user portrait modeling [5]. Some universities in Guangdong even take "digital business acumen" (digital business thinking) as the core of cultivation, integrating interdisciplinary content such as business intelligence and data science to form a ternary competency framework of "technology + business + creativity" [2, 6]. However, in practice, curriculum innovation faces two major challenges: first, the separation between technical courses and traditional business teaching, lacking coherent design; second, training relying on simulation platforms (such as enterprise marketing sand table systems), which have gaps with the real business environment, resulting in students' insufficient ability to transfer data analysis skills [2, 3].

1.3. Upgrading Teachers' Digital Literacy and Institutionalized Development of the "Dual-Qualification" Faculty Team

The transformation of digital and intelligent teaching has forced the reshaping of teachers' capabilities, and the cultivation of "dual-qualification" teachers has become a key starting point. The current situation is reflected in three approaches: (1) Introducing external enterprise experts, such as experts from JD Logistics Alliance stationed in schools to teach and participate in the development of intelligent logistics courses [1]. (2) Cultivating teachers' practical abilities internally by selecting teachers to participate in AI technology projects in enterprises (e.g., national vocational education teachers went to JD.com to learn AI applications in intelligent logistics in 2024) [1]. (3) Promoting interdisciplinary team collaboration by establishing teaching and research teams with compound backgrounds in marketing, big data, and artificial intelligence. For example, 80% of teachers in the Business School of Zhuhai University of Technology have "dual-qualification" credentials and have undertaken more than ten provincial-level research projects. At the policy level, relying on platforms such as the "National Teacher Practice Mobility Station", enterprise practice has been incorporated into the evaluation criteria for professional titles to promote the institutionalization of teacher capacity upgrading [1]. However, colleges and universities in central and western regions still face problems such as insufficient enterprise resources, unequal opportunities for teacher training, and weak technical adaptability among some elderly teachers, leading to a divergence in the progress of improving digital literacy [2, 3]. In the future, it is necessary to further improve the teacher evaluation system and strengthen the weight of technical application capabilities in assessments.

2. Problems in the Cultivation of Marketing Professionals in the Digital and Intelligent Era

2.1. The lag of the curriculum system and its disconnection from the cultivation of digital and intelligent skills

Currently, the update speed of curriculum content for marketing majors lags far behind the iteration cycle of digital technologies, resulting in a serious disconnection between the skills students have acquired and the actual needs of enterprises. The specific manifestations are as follows: (1) The proportion of traditional courses is too high. For instance, courses such as *Consumer Behavior* and *Market Research* still focus on theoretical teaching, lacking the integration of modules like big data analysis and the application of AI tools (e.g., Python, AIGC). Meanwhile, newly added courses like *Digital Marketing* mostly remain at the conceptual level, with insufficient practicality [7]. (2) There is insufficient interdisciplinary integration. Most institutions have not systematically integrated courses such as business intelligence and data science, making it difficult for students to develop composite "technology + business" capabilities. For example, a survey of higher vocational colleges in Hebei Province shows that only 35% of courses have introduced real enterprise data cases, leading to students' weak ability to transfer data analysis skills [7-8]. (3) There is severe curriculum homogeneity with a lack of differentiated

positioning. For example, the repetition rate of courses in independent colleges exceeds 40%, and elective courses are reduced to a mere formality, failing to meet the demands of emerging positions such as intelligent marketing and cross-border live streaming [6].

2.2. Weakness in Teachers' Digital Literacy and Ineffectiveness of the "Dual-Qualification" Mechanism

The insufficient digital and intelligent capabilities of the teaching staff constitute a core bottleneck restricting talent cultivation: (1) Prominent structural shortcomings: Although the proportion of "dual-qualification" teachers in higher vocational colleges has reached 57.5% (data from Hebei Province in 2023), most teachers lack practical experience in enterprises. Especially in emerging fields such as big data marketing and AI-based advertising, teaching still relies on outdated cases [7]. It was pointed out in the seminar held by the School of Economics and Management of Yantai Nanshan University that the phenomena of teachers "being unable to transform" (due to insufficient capabilities) and "being afraid to transform" (due to lack of mechanisms) are common. (2) Inadequate training system: Teachers' corporate practice mostly remains at the level of short-term visits, and less than 20% of them are deeply involved in technological research and development or digital marketing projects. Due to resource scarcity, teachers in colleges and universities in central and western regions receive technical training less than once a year, and elderly teachers face difficulties in transformation [9]. (3) Misplaced evaluation mechanism: The title evaluation focuses on paper publication rather than technical application achievements, which inhibits teachers' motivation for transformation. Local colleges and universities are confronted with the predicament that teachers "dare not transform" due to "inadequate guarantee mechanisms" [10].

2.3. Virtualization of Practical Teaching and Superficialization of Industry-Education Collaboration

University-enterprise cooperation has failed to effectively translate into students' practical capabilities in digitalization and intellectualization: (1) Training scenarios are divorced from real environments. Over 70% of institutions use simulated sandboxes or simplified software (such as basic ERP), which cannot replicate complex business scenarios like intelligent supply chains and cross-border live streaming. Students' training has been reduced to "process drills". For example, the virtual simulation training room of a certain school only simulates the basic operations of JD.com's warehousing, without involving the link of real-time data decision-making [7-8]. (2) Enterprises' participation is insufficient in depth. University-enterprise cooperation is mostly limited to providing internship bases or holding lecture activities, with only 12% of enterprises deeply participating in curriculum development. Due to cost concerns, some enterprises only offer internships in marginal positions (such as data entry), making it rare for students to have access to core digital marketing projects. (3) Innovation and entrepreneurship education is absent. Although the "Internet Plus" has lowered the threshold for entrepreneurship, only 15% of institutions have systematically launched practical projects such as e-commerce operation and social media fission, leaving students lacking opportunities to verify

digital strategies in real markets [9].

3. Measures for Improving the Cultivation of Marketing Professionals in the Digital and Intelligent Era

3.1. Building a Dynamic Curriculum System Driven by "AI + Real Projects"

To address the issue where curriculum content lags behind technological iterations, it is necessary to establish an agile curriculum development mechanism and an interdisciplinary capability integration framework: (1) Embed enterprise-level AI tools and real data: Integrate Python data cleaning, AIGC content generation, and intelligent placement platforms (such as Tencent Advertising System) into core courses. Drawing on the model of Sichuan Vocational College of Chemical Technology, in the course *Digital Marketing*, enterprise short-video promotion projects are directly introduced. Students use practical intelligent editing tools to create popular videos with a single-play count exceeding 2 million, achieving the ability transformation of "integrating learning and application". (2) Add cutting-edge technology modular courses: Dynamically adjust course packages according to enterprise needs. For example, Shandong Jianzhu University, in collaboration with Rongfa Digital, has launched the course "AIGC Text-to-Image/Video Practical Combat", covering the entire process of AI content creation, which solves the defect that traditional courses focus more on theory than practice. (3) Build a "technology + business" composite knowledge graph: Referring to the consensus of the Virtual Teaching and Research Office of the Ministry of Education, integrate disciplines such as data science and consumer neuroscience, and construct a three-tier capability model of "digital marketing technology application - business decision analysis - ethical risk governance" to cope with new challenges such as algorithmic bias and data privacy [5].

3.2. Building an Empowerment System for "Dual-Qualification and Dual-Capability" Teachers

To address the issue of teachers' weak digital literacy, it is necessary to achieve capability upgrading through institutionalized training and mutual recognition of identities between schools and enterprises: (1) Establish a "technology-immersion" teacher practice mechanism. Following the model of Inner Mongolia Business and Trade Vocational College relying on JD.com's "National Teacher Practice Mobility Station", select teachers to participate in enterprise AI research and development projects (such as intelligent logistics algorithm optimization), and transform technological application achievements into teaching cases. Teachers are required to accumulate no less than 3 months of enterprise practice every two years, which is included as a core indicator for professional title promotion. (2) Introduce enterprise mentors to teach on campus. Drawing on the "mobile classroom" experience of Liaoning University, invite marketing directors from Yili Group to jointly teach *Innovative Marketing*, bringing the enterprise's latest intelligent placement strategies and user portrait modeling technologies into the classroom to make up for teachers' lack of practical experience. (3) Build a teacher digital literacy certification platform: Led by the virtual teaching and

research office, develop an AI marketing capability assessment system (covering modules such as large model application and data visualization). Teachers who pass the certification can obtain the qualification of "Digital Teaching Mentor" to drive the upgrading of regional teachers' capabilities [5].

3.3. Deepening the "Scenario-Based Practical Combat" Industry-Education Integration Model

To address the issue of the superficialization of practical teaching, it is necessary to promote university-enterprise cooperation from "providing positions" to "capacity co-creation": (1) Jointly build practical platforms with real business scenarios. Drawing on the experience of Inner Mongolia Business and Trade Vocational College and JD.com in co-building the "Asia No. 1" intelligent warehouse training base, complex environments such as intelligent supply chain decision-making and live streaming traffic operation should be replicated, enabling students to face real-time data challenges (such as dynamic inventory optimization and real-time ROI calculation). (2) Implement the "competition-project-employment" integrated education model. Referring to the Creative Communication Competition held by Liaoning University and Yili Group, with real products (such as Changqing yogurt) as the propositions, student teams need to complete the full-process practice from market insight, AIGC content generation to social media placement. The winning works are directly put into the market for verification, and the relevant students are given priority in employment. (3) Develop a digital skills micro-certification system. Collaborate with leading enterprises (such as Tanji Technology and Douyin E-commerce) to develop micro-certificates in areas like "intelligent customer service" and "cross-border live streaming", and embed enterprise job skill standards into the credit system. For example, Shandong Jianzhu University has realized the mutual recognition of "AI Editor" certification and course credits through Rongfa Digital training, enhancing students' employment competitiveness.

4. Conclusion

In the digital and intelligent era, the cultivation of marketing professionals is undergoing profound transformation. At the current stage, the popularization of industry-education integration mechanisms has promoted the joint construction of industrial colleges and practical bases by schools and enterprises (such as the JD Intelligent Warehouse Training Base of Inner Mongolia Business and Trade Vocational College). The curriculum system is accelerating the integration of big data and AI technology modules, and the institutionalization of the "dual-qualification" teacher team building is gradually advancing. However, core problems have become prominent: the curriculum content lags behind technological iterations, leading to a disconnection in skill cultivation; teachers have weak digital literacy, and the "dual-qualification" mechanism fails to effectively transform practical capabilities; industry-education collaboration remains superficial, with training divorced from real business scenarios (for example, over 70% of institutions rely on simplified sandboxes).

The path to improvement requires systematic breakthroughs: First, construct a dynamic curriculum system

driven by "AI + real projects", reshaping the capability framework through the integration of enterprise-level tools (such as AIGC creation and intelligent placement platforms) and interdisciplinary knowledge graphs. Second, build an empowerment system for "dual-qualification and dual-capability" teachers, addressing capability gaps through technology-immersion practice, enterprise mentors teaching on campus, and digital certification. Third, deepen the "scenario-based practical combat" industry-education integration, achieving capability co-creation through models such as replicating intelligent supply chain decision-making and integrating competitions, projects, and employment.

In essence, talent cultivation needs to take technology as the axis and industry-education integration as the vein, shifting from "knowledge imparting" to "forging digital and intelligent decision-making capabilities". Only in this way can the gap between talent supply and industrial demand be bridged.

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