

Research on Modernising Innovation and Entrepreneurship Education in New Business Disciplines at Applied Universities through Artificial Intelligence Empowerment

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Abstract: This paper explores pathways and strategies for the AI-driven modernisation of innovation and entrepreneurship education within the new business disciplines of applied universities. It begins by analysing the urgent demand for interdisciplinary business talent in the digital economy, emphasising the outdated nature of traditional business education in terms of its content, methodology and assessment mechanisms. It then outlines the new requirements for AI-enhanced innovation and entrepreneurship education in terms of talent development, curriculum design, teaching models, faculty development, evaluation systems and practical platforms. Finally, the paper systematically presents AI-powered modernisation pathways for innovation and entrepreneurship education through seven dimensions: strategic planning, curriculum restructuring, pedagogical innovation, faculty optimisation, evaluation refinement, platform upgrades, and industry-university collaboration. These initiatives aim to drive profound educational transformation and cultivate applied professionals who possess business acumen, technical expertise and an innovative spirit.

Keywords: Artificial Intelligence(AI); Innovation and Entrepreneurship; Business; College Students

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1.Introduction

The rapid advancement of artificial intelligence technology is fundamentally reshaping business ecosystems and talent requirements, ushering in a new phase of high-quality business education centred on innovation and entrepreneurial capabilities. As key drivers of regional economic growth, applied universities must urgently address the demand for interdisciplinary and innovative talent in the digital era through their business education programmes. However, traditional business education still suffers from issues such as a lack of connection to practical applications and rigid pedagogical models. This means it fails to meet students' real-world needs for 'innovation and entrepreneurship' competencies in the new economy. Integrating AI into new business education not only meets the inevitable requirements of technological integration and model innovation, but also serves as a crucial pathway to modernising education and enhancing the quality of talent cultivation. This paper systematically explores how AI can empower new business education with 'innovation and entrepreneurship' capabilities in applied universities, examining three aspects: necessity, emerging demands and developmental pathways. The research aims to provide theoretical references and practical guidance for related educational practices.

2. The necessity of developing ‘double creation’ education in application-oriented business schools

2.1 Economic change and evolving requirements for business education

Industrial upgrading and evolving demands for business talent. The rapid development of the digital economy and profound industrial restructuring have led to the creation of numerous new business models and cross-disciplinary roles. These emerging roles require professionals to demonstrate not only solid expertise, but also interdisciplinary application skills, complex problem-solving capabilities and an ‘innovation-driven entrepreneurship’ mindset. The digital transformation of industries has created new requirements for the competency framework of business professionals. Modern commercial operations require professionals who are digitally savvy and can utilise AI tools for data analysis, market forecasting and business decision-making ^[1]. This industry-driven educational transformation means that new business education must prioritise cultivating innovation-driven entrepreneurial capabilities. Through interdisciplinary integration and practical training, the aim is to develop students’ core competencies that are essential for adapting to the needs of future business development.

Table 1: A comparison of traditional and new approaches to business education.

Comparative dimensions	Traditional business education	New Business Education
Course focus	Theoretical knowledge and single skill	Interdisciplinary integration and “double innovation” ability
Teaching method	Teacher-led, classroom teaching	Student center, project driven, practice oriented
Ability training	Knowledge memory and test-taking ability	Problem solving, innovative thinking, teamwork
Evaluation mechanisms	Examination results are the dominant factor	Multiple evaluation, emphasis on process and practical results
Industry linkages	Lagging behind industrial development	Develop in step with the industry and make forward-looking arrangements

The disconnect between traditional business education and the demands of the new economy. Traditional business education is faced with three critical challenges when it comes to meeting the needs of economic development in the new era: Firstly, outdated curricula fail to reflect the latest trends in the growth of the digital economy. Secondly, teaching methods are monotonous and rely too heavily on theoretical lectures, lacking practical scenarios and project-driven training. Thirdly, rigid evaluation mechanisms prioritise knowledge assessment over evaluating innovative capabilities and practical skills. Table 1 compares traditional and modern business education. This results in graduates struggling to meet corporate requirements, creating a structural contradiction where ‘employment difficulties’ coexist with ‘recruitment challenges’. Furthermore, it severely undermines the effectiveness of entrepreneurship education programmes, making it difficult to cultivate high-quality business professionals who can meet the demands of the new economy ^[2].

The connotation of new business education and its relationship with ‘mass entrepreneurship and innovation’ education. Building upon traditional business education, new business education directly addresses the new demands, changes, stages, characteristics and challenges of the economy and society. It incorporates new technologies, methods, concepts, models and systems into the traditional curriculum, reorganising and intersecting traditional business disciplines in order to respond to new situations, issues, competitions, requirements and goals brought about by technological, social, economic, environmental and climatic factors. This approach highlights the distinctive theories and methods of Chinese business studies ^[3]. New business education emphasises interdisciplinary integration with engineering, science, humanities, and social sciences, focusing on cultivating students’ innovative thinking and entrepreneurial capabilities to help them navigate uncertain business environments. ‘Mass Entrepreneurship and Innovation’ education and the development of new business education share intrinsic consistency and mutual reinforcement. On the one hand, ‘Mass Entrepreneurship and Innovation’ education serves as a crucial component and methodological pathway for the development of new business education. Conversely, new

business education provides the knowledge foundation and capability framework for ‘Mass Entrepreneurship and Innovation’ education. Through cultivating “business-driven innovation, business-assisted innovation, business-activated innovation, and business-powered innovation”, a chain-integrated “Business Education +” and “Mass Entrepreneurship and Innovation” collaborative education system is formed. This transforms “Mass Entrepreneurship and Innovation” education from a universal approach to one that is quality-oriented.

2.2 The development orientation of application-oriented universities and the inherent requirements of talent training

The core mission and positioning of applied universities. As distinct higher education institutions, they are dedicated to serving regional socioeconomic development by cultivating high-calibre professionals for the production, management and service sectors. Unlike research-oriented universities, they emphasise practical education with a strong vocational focus ^[4]. Their business education must closely align with regional economic needs in order to produce management talent that can drive industrial transformation and corporate innovation. This requires breaking traditional disciplinary boundaries to establish industry-education integration and school-enterprise collaboration mechanisms. Incorporating real-world business projects and industry challenges into the curriculum enables students to gain hands-on experience in acquiring knowledge and developing practical skills through real-world applications.

The strategic value of ‘mass entrepreneurship and innovation’ for applied universities. “Mass Entrepreneurship and Innovation” education holds significant strategic value for applied universities, serving as a crucial pathway to connotative development, distinctive growth and quality enhancement. Firstly, this educational model drives reforms in applied university education by breaking away from traditional pedagogical constraints. This establishes teaching approaches that align with the characteristics of cultivating applied talent. Secondly, it promotes the integration of industry and education and collaboration between schools and enterprises, strengthening the connection between academic institutions and socio-economic development and enhancing their capacity to serve local communities. Finally, this type of education helps to shape institutional identity and boost the competitiveness of universities by offering distinctive educational features.

Table 2: The role of new business disciplines in improving the quality and efficiency of innovation and entrepreneurship education at applied universities.

Dimension of action	Embody	Case examples
Optimization of talent training process	Project-driven, increased student Engagement	Jiangsu Institute of Technology “Business to Innovation” curriculum system
Improving teaching quality	Cultivation of practical ability and innovative spirit	Fourth stage practical teaching mode of Geely College
Improvement in subject competitions	The number and level of awards have increased	The number of competition awards at Zhanjiang Institute of Technology increased by 13 times
Improvement in the quality of employment	Employment competitiveness and success rate of entrepreneurship increased	Jiangsu Institute of Technology has many successful cases of entrepreneurship
The capacity of social services has been enhanced	Integration of production and education and deepening cooperation between schools and enterprises	Nearly 1,000 graduates of Zhanjiang Institute of Technology have joined top companies in the Greater Bay Area

The importance of quality improvement and efficiency enhancement in “mass entrepreneurship and innovation” education within the new business discipline framework. Within this framework, “mass entrepreneurship and innovation” education plays a significant role in enhancing the quality and efficiency of talent development at applied universities. On the one hand, it can optimise the talent cultivation process by adopting project-driven approaches, competition-led initiatives and practical training methods, thereby enhancing students’ learning interest and participation while cultivating their practical skills and innovative spirit. On the other hand, it improves the quality of talent development, ensuring that graduates are better aligned with industry demands, enhancing their employability and entrepreneurial capabilities. Many applied universities in China

have significantly improved their students' 'mass entrepreneurship and innovation' outcomes by establishing a curriculum system, training framework, competition mechanism and support system empowered by business disciplines. Specific cases are illustrated in Table 2.

2.3 The realistic demand for the comprehensive development, employment and entrepreneurship of college students

The need to enhance college students' 'mass entrepreneurship and innovation' competencies. Currently, college students generally lack the necessary "mass entrepreneurship and innovation" competencies, falling significantly short of societal demands. Many applied university students demonstrate a lack of awareness, dedication and capability in this area. While many students express a strong interest in 'mass entrepreneurship and innovation', surveys indicate that they often lack the necessary knowledge, skills and practical experience to transform ideas into tangible projects or establish businesses. Meanwhile, the challenging employment landscape urgently requires comprehensive 'mass entrepreneurship and innovation' education to boost employability and entrepreneurial readiness. This type of education can substantially improve students' professional application skills, interdisciplinary integration abilities, teamwork capabilities and market insight. By participating in 'Mass Entrepreneurship and Innovation' projects and gaining practical experience, students can apply their expertise to solve real-world problems, thereby cultivating critical thinking and creative problem-solving skills, as well as the ability to tackle complex challenges.

The impact of 'mass entrepreneurship and innovation' education on new business education and employment quality. Under the new business education framework, the 'Mass Entrepreneurship and Innovation' education significantly improves employment quality for college students. It helps students adapt more easily to the demands of an evolving job market, boosting their competitiveness and career development capabilities. Practical evidence shows that, through systematic planning of clusters of new engineering, business, medical and humanities disciplines, universities can substantially strengthen their capacity to serve local development by dynamically optimising disciplinary structures and aligning closely with national strategies and regional industrial needs. Furthermore, this educational model fosters an entrepreneurial spirit and capabilities, inspiring students to establish their own enterprises and generate new job prospects. Business education empowers students to participate in the 'Mass Entrepreneurship and Innovation' initiative, which facilitates multi-path growth, including independent entrepreneurship, position-based entrepreneurship, and high-quality employment.

3. New requirements for 'double innovation' education in new business schools against the backdrop of artificial intelligence

3.1 Upgrading talent training requirements

The rapid advancement of artificial intelligence has driven profound transformations in business models, while simultaneously creating new demands for the cultivation of 'innovation and entrepreneurship' talent in the emerging business disciplines of applied universities. Traditional 'innovation and entrepreneurship' education, which focused on developing professionals with foundational business knowledge and entrepreneurial skills, has evolved in the context of AI. The current educational objective is to cultivate interdisciplinary innovators who can integrate 'AI + business + innovation and entrepreneurship'. These individuals must not only grasp solid business theories and innovation methodologies, but also demonstrate practical problem-solving abilities using AI technologies. They must also exhibit ethical awareness in AI applications and possess cross-disciplinary collaboration skills.

From an industrial perspective, the widespread application of AI in commercial sectors has given rise to new roles such as intelligent marketing, smart finance and intelligent supply chain management. These roles require professionals to utilise AI technologies such as machine learning and big data analytics for tasks such as market forecasting, customer profiling and optimising business decisions. New business education programmes at applied universities under the 'Mass Entrepreneurship and Innovation' initiative should therefore align with these emerging job requirements by integrating AI application capabilities as a core component of talent development objectives.

3.2 Requirements for innovation in teaching methods

Advances in artificial intelligence technology have provided technical support for an innovative 'mass entrepreneurship and

innovation' education model in the new business disciplines of applied universities, while simultaneously demanding reforms to traditional teaching approaches. The traditional "teacher-centred, lecture-based" pedagogical model urgently needs to be transformed into a new paradigm characterised by "student-centred learning, technological empowerment and a practical approach".

Firstly, AI technology enables the implementation of personalised teaching models. Intelligent learning analytics systems enable teachers to develop personalised learning plans by analysing students' behavioural data, thereby enhancing learning initiative and efficiency. Secondly, virtual simulation education is a vital supplement to practical training. The integration of AI and virtual simulations enables highly realistic business scenarios and innovation ecosystems to be created. This virtual environment effectively addresses limitations in traditional practical teaching, such as restricted facilities and high costs^[5], while providing students with opportunities to conduct market research, develop products, devise marketing strategies and manage enterprises. Thirdly, project-based learning and collaborative teaching models have gained widespread adoption. Given the complexity and interdisciplinary nature of AI-driven business innovation, project-based learning engages student teams in solving real-world problems using business knowledge and AI technologies. Meanwhile, collaborative teaching teams comprising business instructors, AI specialists and corporate mentors facilitate the integration of interdisciplinary knowledge and the coordinated development of practical skills.

3.3 Requirements for curriculum system reconstruction

In the context of artificial intelligence, the 'mass entrepreneurship and innovation' education curriculum in the new business disciplines of applied universities must break through traditional disciplinary barriers and be systematically restructured to achieve the deep integration of business knowledge, AI technology and innovation capabilities. Conventional curricula often comprise business courses, AI courses, and innovation programmes that operate in isolation from one another, resulting in a fragmented approach that fails to meet the demand for interdisciplinary talent. Therefore, curriculum restructuring should adhere to the principles of 'integration, practicality, and foresight'.

The curriculum should be designed as a multi-tiered system comprising "core foundation courses + modular electives + practical projects". The core foundation courses should cover business fundamentals, AI theories and the basics of innovation-driven entrepreneurship to develop students' interdisciplinary expertise. Modular electives should integrate regional industrial features and student development needs through specialised modules such as intelligent marketing, smart finance and cross-border e-commerce operations to cater for diverse learning objectives. Practical project courses should be integrated throughout the talent development process to transform theoretical knowledge into practical skills by engaging students in real-world, AI-driven innovation projects within authentic business scenarios.

3.4 Requirements for teacher training

The faculty team is essential for ensuring the quality of entrepreneurship and innovation education within the new business disciplines of applied universities. In the AI era, higher demands are placed on the competency structure and development models of teaching staff. Traditional faculty members often lack AI application skills, while AI specialists frequently lack business knowledge and an understanding of innovation practices. These gaps hinder the integration of 'AI + Business + Innovation' into teaching. Therefore, faculty development should focus on three key aspects: enhancing competency, optimising structure, and diversifying recruitment channels.

In order to enhance teaching capabilities, we must strengthen cross-disciplinary training for faculty members. This involves organising AI technology workshops and executive training programmes, as well as arranging internships at AI enterprises for business education instructors to gain hands-on experience, thereby improving their technical proficiency and interdisciplinary teaching skills. Secondly, we should encourage AI instructors to study business knowledge and innovation-driven entrepreneurship theories to enhance their commercial literacy and practical teaching abilities. In terms of structural optimisation, we need to establish a multidisciplinary faculty team that integrates business studies, AI and innovation-driven entrepreneurship. This requires recruitment and development efforts to attract professionals who are proficient in both business disciplines and AI technologies. At the same time, we should consolidate campus resources to form interdisciplinary teaching teams and optimise faculty allocation. To source diverse talent, we should strengthen industry-academia

collaboration by involving frontline corporate experts in instruction. Inviting AI specialists and business innovation mentors to join us as adjunct faculty or practical instructors would enable us to share the latest industry trends, technical applications and innovation-driven entrepreneurship case studies, effectively addressing the shortage of practical experience among our existing faculty.

3.5 Requirements for improvement of the evaluation mechanism

In the context of artificial intelligence, the evaluation mechanism for ‘mass entrepreneurship and innovation’ education in applied universities’ new business disciplines must transcend the traditional limitations of ‘knowledge assessment dominance and result-oriented evaluation’. This requires the establishment of a comprehensive evaluation system featuring multi-stakeholder participation, multidimensional indicators and balanced consideration of processes and outcomes. This will enable a more holistic and objective assessment of students’ overall qualities and capabilities ^[6].

In terms of evaluators, there should be greater diversity. The new evaluation mechanism should incorporate multiple stakeholders, such as student self-assessment, peer review, corporate evaluation and social assessment. Student self-assessment and peer review encourage self-reflection and awareness of teamwork. Corporate evaluation assesses students’ practical application abilities by providing feedback on internship performance and project outcomes. Social assessment evaluates students’ innovation capabilities and social contributions through the social impact and award-winning status of ‘mass entrepreneurship and innovation’ projects. Regarding evaluation criteria, a multidimensional system should be established. Indicators should cover knowledge mastery, skill development, and quality enhancement across multiple dimensions. The knowledge dimension should include core business knowledge, artificial intelligence fundamentals and ‘mass entrepreneurship and innovation’ knowledge. The skill dimension encompasses AI technology application, innovative thinking, practical operation, teamwork and communication skills. The quality dimension covers professional ethics, AI ethical literacy, and the ‘mass entrepreneurship and innovation’ spirit. In terms of evaluation methods, there should be an emphasis on combining process-oriented and outcome-oriented assessments. Process evaluation can utilise intelligent learning analytics systems to track and document students’ learning behaviours, classroom performance and project participation in real time, providing a comprehensive reflection of the learning process. Outcome evaluation can be conducted through final exams, project presentations and ‘mass entrepreneurship and innovation’ competition results.

3.6 Requirements for upgrading the practice platform

Practice platforms are vital for applied universities to implement practical education and innovation-driven initiatives within the “Mass Entrepreneurship and Innovation” framework. In the AI era, these platforms require comprehensive upgrades to integrate “AI + Business Studies + Innovation-Driven Development”. The upgrade strategy should prioritise three key areas: intelligent transformation, integrated systems and open ecosystems.

In terms of platform intelligence, integrating advanced AI technologies and equipment is essential for establishing intelligent practice environments. For example, an intelligent business data analysis lab could be built to support practical student activities such as market data analysis and customer profiling. Similarly, establishing a smart supply chain simulation lab would allow students to experience intelligent scheduling and risk warning systems in supply chain management. Regarding platform integration, we need to consolidate on-campus practice resources to achieve seamless connectivity between different laboratories and functional platforms. One example of this would be to integrate the Intelligent Marketing Lab, the Intelligent Finance Lab and the “Mass Entrepreneurship and Innovation” incubation platform into a unified “Smart Innovation Practice Centre for New Business Studies”. Strengthening collaboration between on-campus practice platforms and off-campus enterprise bases will also create an integrated ‘on-campus + off-campus’ practice ecosystem. To increase platform openness, we must break down campus boundaries to share resources with students, enterprises and society. Encourage students to independently apply for practice platforms for innovation-driven initiatives and to form teams to join incubation programmes. Secondly, we should provide technical R&D support and talent training services to attract real business projects from enterprises to the practice platforms, thereby fostering collaborative innovation between universities and companies.

4. Empowering the “double innovation” education development path of modernisation in applied universities with artificial intelligence.

4.1 Strengthen top-level design and clarify the development direction of AI-enabled ‘double innovation’ education.

A strong top-level design is essential for modernising AI-powered ‘mass entrepreneurship and innovation’ education in applied universities. These institutions should establish a systematic framework for top-level design by defining overarching objectives, core missions and implementation pathways for AI-enhanced business education. This should be developed through strategic planning that is aligned with institutional development goals.

Firstly, a specialised development plan should be developed. Universities should bring together experts and industry representatives from fields such as business education, artificial intelligence and innovation-driven entrepreneurship, in order to conduct in-depth research into regional industrial demands and AI technology trends. Aligning with the institution’s positioning and distinctive features, schools should then formulate actionable strategies outlining phased objectives, breaking down key tasks and clarifying departmental responsibilities, to ensure effective implementation. Secondly, a collaborative management framework should be established. Create dedicated administrative bodies to coordinate curriculum development, faculty training and the construction of practical platforms. Regular meetings should be held to address implementation challenges. Simultaneously, create cross-departmental collaboration mechanisms to break down the barriers between business schools and AI colleges and promote the integration of interdisciplinary resources and collaborative talent cultivation. Finally, enhance policy support systems. Develop policy documents that empower AI-enhanced business education and innovation-driven entrepreneurship programmes. These policies should specify funding, incentives and evaluation criteria for faculty development, platform construction and project incubation. Faculty members participating in interdisciplinary teaching teams and corporate internships should receive workload recognition and performance-based rewards. Outstanding student AI innovation projects should be awarded financial grants and incubation space.

4.2 Restructuring the curriculum system to achieve deep integration between artificial intelligence, business, and ‘double innovation’ education.

The core of modernising ‘mass entrepreneurship and innovation’ education in AI-powered applied universities is reconstructing the curriculum system. Guided by the principles of integration, practicality and foresight, we must break through traditional disciplinary boundaries to create a curriculum system that integrates AI, business studies and innovation-driven entrepreneurship.

Firstly, we will develop a multi-tiered curriculum framework. Focusing on talent development objectives, three tiers are established: Foundation, Core, and Extension. Foundation Level courses provide students with the fundamental theoretical knowledge of business, artificial intelligence and innovation-driven entrepreneurship. The Core Level focuses on integrating AI with business applications. Elective Extension Level courses cater for individual learning needs. Secondly, innovate course content and textbook development. We collaborate with university faculty and industry experts to incorporate real-world AI commercial cases into the classroom. We also create specialised textbooks that blend AI, business and innovation education, balancing theoretical depth with practical application. A dynamic content update mechanism ensures that the content is always aligned with the latest technological advancements in the AI and business sectors. Thirdly, we advance interdisciplinary curriculum clusters. Based on core courses, we establish cross-disciplinary clusters led by faculty members from the fields of business, AI and innovation. These clusters coordinate the integration of courses and design interdisciplinary practical projects.

4.3 Innovate teaching methods and utilise the potential of artificial intelligence in ‘double innovation’ education.

Innovating teaching models is crucial for modernising “mass entrepreneurship and innovation” education at applied universities powered by artificial intelligence. This requires the full utilisation of AI’s advantages to establish a new teaching model characterised by ‘personalisation, immersion, and collaboration’^[7].

Firstly, we promote personalised, intelligent teaching. Leveraging smart learning platforms achieves intelligent upgrades in the teaching process. Intelligent diagnostic systems assess students’ foundational knowledge upon enrolment and recommend personalised learning models and course resources based on the evaluation results. During instruction, the real-time collection

of student learning data through intelligent analytics enables teachers to accurately monitor progress and adjust their teaching strategies accordingly. Secondly, develop virtual simulation-based practical education. Create an intelligent ‘innovation and entrepreneurship’ virtual simulation centre for a new business discipline, developing experimental projects that cover areas such as smart marketing, intelligent finance and startup incubation. These simulations will be integrated into course curricula and will require students to complete designated virtual practice tasks that will contribute to their final evaluations. Thirdly, project-based collaborative learning should be implemented. Guided by authentic business projects, students will engage in team-driven learning. During implementation, collaborative teaching teams comprising business faculty, AI specialists and industry mentors will jointly mentor students. Working in groups, students will complete research projects, submit reports and present their findings, thus cultivating their teamwork skills and practical problem-solving abilities.

4.4 Strengthen teacher training and develop a multi-skilled ‘double innovation’ education team.

Faculty development is the cornerstone of modernising innovation and entrepreneurship education in AI-powered applied universities. We must integrate talent cultivation, recruitment and employment strategies to build a multidisciplinary teaching force combining business expertise, AI technical capabilities and hands-on experience in innovation-driven practices.

Firstly, improve the development of existing faculty members. Organise regular training sessions for business education instructors to participate in AI technology training. Create practical training bases where teachers can undertake internships at relevant enterprises and engage in the R&D of AI commercial application projects to accumulate hands-on experience. Host integrated teaching seminars, such as ‘AI + Business + Innovation-Entrepreneurship’ workshops, and teaching skills competitions, to encourage knowledge exchange among educators and enhance interdisciplinary teaching capabilities. Secondly, recruit high-calibre interdisciplinary talent. Implement preferential recruitment policies to attract professionals with cross-disciplinary backgrounds in AI and business studies who have real-world industry experience. These experts can teach integrated courses and lead teams in academic research and scientific projects, thereby driving overall faculty development. Finally, diversify part-time faculty recruitment. Collaborate with enterprises, industry associations and innovation-entrepreneurship incubators to hire AI specialists, business executives and successful entrepreneurs as adjunct or practice instructors. These part-time teachers will primarily deliver practical courses, provide project guidance and share case studies. They will also integrate the latest industry trends, technical applications and innovation-entrepreneurship cases into classroom instruction.

4.5 Improve the evaluation mechanism and establish a comprehensive, artificial intelligence-enabled evaluation system.

Improving the evaluation mechanism is crucial for modernising “mass entrepreneurship and innovation” education at applied universities powered by artificial intelligence. It is necessary to overcome the limitations of traditional evaluation and develop a system that is comprehensive, diverse, multidimensional and process-oriented, using artificial intelligence technology.

Firstly, establish a diverse evaluation framework. Then, develop an assessment system involving teachers, students, enterprises and social institutions. Teachers will evaluate students’ knowledge mastery, classroom performance and project guidance. Students will conduct self-assessments and peer reviews to reflect on their learning progress and evaluate their contributions to the team. Enterprises will evaluate practical application skills and professional ethics, and social institutions will assess innovation capabilities and social value. This multi-stakeholder approach ensures evaluations are comprehensive and objective. Secondly, design multidimensional assessment indicators. Focusing on three core dimensions - ‘knowledge, competence, and quality’ - specific metrics should be established. The knowledge dimension includes mastery of business core concepts, an understanding of foundational AI theories and the application of ‘mass entrepreneurship and innovation’ knowledge. The competence dimension covers AI technology operation, business data analysis, innovative thinking, practical skills, teamwork and communication abilities. The quality dimension encompasses professional ethics, ethical awareness, the ‘mass entrepreneurship and innovation’ spirit, and a sense of responsibility. Thirdly, implement a process-oriented intelligent evaluation system. Use AI technology to automate and optimise the assessment process. Smart learning platforms will track students’ learning progress data for quantitative evaluation, while intelligent assessment systems will provide real-time knowledge assessments to inform teaching decisions. Blockchain technology will be integrated into project evaluations to

verify students' participation and deliverables, ensuring authenticity and fairness.

4.6 Upgrade the practice platform to build an intelligent, integrated system for mass entrepreneurship and innovation.

The upgraded platform is a vital tool for modernising innovation and entrepreneurship education at applied universities through AI-powered initiatives. This involves integrating on-campus resources with external collaborations to create an intelligent, integrated system that combines 'on-campus smart practice platforms' and 'off-campus collaborative practice bases' [8].

Firstly, we will establish a cluster of intelligent practice platforms on campus. With a focus on the integration of "AI + Business + Innovation and Entrepreneurship", we will develop a series of specialised smart practice platforms. This will include the construction of a commercial big data analytics laboratory, equipped with the necessary tools to support students' practical activities, such as market data analysis and customer behaviour prediction. Additionally, an AI-powered business simulation lab will enable students to conduct marketing planning and financial service operations in virtual environments. An AI-driven innovation and entrepreneurship incubation centre will provide a range of services, including AI project diagnosis, intellectual property protection and investment financing connections for student projects. Secondly, we will establish off-campus collaborative practice bases. By strengthening our partnerships with AI companies, commercial enterprises and innovation incubators, we will establish external collaboration hubs together. In collaboration with major AI firms, we will establish AI commercial application practice bases, where students will undertake internships at enterprises and participate in the development of intelligent business projects. By partnering with local SMEs, we will establish innovation service bases where students will deliver technical services such as designing smart marketing solutions and analysing business data, thereby fostering collaborative innovation between schools and enterprises. Through our collaborations with innovation incubators, we will provide venue support, mentorship guidance and connections to market resources to facilitate project implementation and commercialisation.

4.7 Deepen school-enterprise cooperation and establish a collaborative education mechanism that enables 'double creation' education.

Strengthening university-industry collaboration is a vital way for AI-powered applied universities to modernise their business education and innovation and entrepreneurship initiatives. To overcome the limitations of traditional partnerships, which tend to be superficial and loosely structured, an in-depth cooperation mechanism must be established, featuring resource sharing, complementary strengths and collaborative talent development.

Firstly, they should work together to develop talent cultivation programmes. Under the New Business Education framework, both universities and enterprises collaborate in formulating talent development plans for the 'Mass Entrepreneurship and Innovation' initiative. Enterprises propose specific knowledge, skill and quality requirements based on their developmental needs and job roles. Universities then adjust their educational objectives, curriculum design and practical components to ensure precise alignment with these demands. Secondly, curricula and teaching materials should be co-created. Institutions and enterprises will work together to develop integrated courses and textbooks that combine 'AI + Business Studies + Mass Entrepreneurship and Innovation', with industry experts participating in the design of the content and compilation of the textbooks to incorporate real-world project cases and technical application experiences. Thirdly, faculty teams are built through a 'mutual recruitment' mechanism. Universities send faculty members to work as technical consultants or project leaders on corporate innovation initiatives, while enterprises send technical experts and managers to work as adjunct teachers, providing practical course instruction and project guidance. Finally, a collaborative ecosystem for mass entrepreneurship and innovation should be established. Create platforms such as AI innovation competitions and business innovation forums to engage students, corporate employees and social entrepreneurs, thereby fostering a vibrant atmosphere for mass entrepreneurship and innovation.

5. Conclusion

Artificial intelligence is not intended to replace traditional 'mass entrepreneurship and innovation' education, but rather to give it an unprecedented boost. For applied universities' new business disciplines, the modernisation of such education

through AI represents a profound paradigm shift. This requires institutions to adopt a strategic, top-level design approach and systematically reconstruct curricula, teaching methodologies and practical frameworks, while also promoting faculty transformation. The ultimate goal is to cultivate a new generation of business talent who understand commercial principles, can use AI tools effectively, and have an innovative spirit, entrepreneurial capabilities and a strong sense of social responsibility. Rather than being passive adapters, these individuals will become architects and pioneers, shaping future business ecosystems. While this transformation poses significant challenges, it also presents applied universities with a historic opportunity to achieve connotative development, distinctive growth and enhanced competitiveness.

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Conflict of Interests

The authors declare that there is no conflict of interest regarding the publication of this paper.

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