

Research on the cultivation path of innovative and entrepreneurial talents in artificial intelligence colleges of Chongqing universities under the background of new quality productivity

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Keywords: New-quality productivity, School of artificial intelligence, Innovation and entrepreneurship.

Abstract. The innovative and entrepreneurial talents cultivated by the School of Artificial Intelligence in universities not only contribute to providing talent and intellectual support for Chongqing's development of new-quality productivity, enhancing the ability of education-strengthened cities to serve societal and livelihood improvements, but also aid in advancing the construction of the New Western Land-Sea Corridor, supporting the creation of the "33618" modern manufacturing cluster system, and optimizing the overall framework of "1361" for Digital Chongqing. Based on the analysis of the policy environment, supporting strategies, and other conditions in the process of developing new-quality productivity in Chongqing, combined with the investigation of the construction of new artificial intelligence colleges in Chongqing's universities, it is of great significance to explore and propose a cultivation path for innovative and entrepreneurial talents.

1 Introduction

Universities in Chongqing must prioritize the cultivation and supply of innovative and entrepreneurial talents for the development of new-quality productivity. The construction of new-type artificial intelligence colleges in universities needs to deepen cooperation between universities and enterprises, strengthen the integration of industry and education, accelerate the transformation of scientific and technological achievements, promote the application of artificial intelligence technology, and facilitate the transformation and upgrading of the regional economy as well as the optimization of local industrial structures.

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2 The actual demand for innovative and entrepreneurial talents in AI colleges from Chongqing's development of new-quality productivity

New-quality productivity represents the evolutionary direction of advanced productivity and reflects profound changes in technological innovation, factor allocation, and industrial upgrading. Furthermore, the formation and development of new-quality productivity cannot be separated from innovative and entrepreneurial talents who master cutting-edge technologies and advanced concepts, nor from the cultivation of such talents by new AI colleges. Specifically, Chongqing's development of new-quality productivity poses high-level, interdisciplinary, and diversified demands for the cultivation of innovative and entrepreneurial talents in artificial intelligence colleges of universities.

3 The development of new quality productivity in Chongqing requires the ability of innovative and entrepreneurial talents

Capability Requirements for Innovative and Entrepreneurial Talents in Artificial Intelligence Colleges of Universities in Chongqing's Development of New Types of Productivity. The development of new types of productivity requires comprehensive guidance from national policies and government strategies, as well as intellectual support from innovative and entrepreneurial talents. For Chongqing, developing new types of productivity necessitates cultivating and introducing a steady stream of innovative and entrepreneurial talents who possess professional skills, technological innovation capabilities, practical experience, industry alignment abilities, comprehensive qualities, team collaboration skills, policy awareness, market analysis capabilities, international perspectives, and cultural exchange competencies.

4 Implementation plan of cultivating innovative and entrepreneurial talents in Chongqing college of artificial intelligence under the background of new quality productivity

4.1 Advancing curriculum and teaching reform

4.1.1 Optimizing the curriculum system

New artificial intelligence colleges should organize an innovation and entrepreneurship education curriculum development team comprising industry experts, corporate representatives, and college teachers. Based on relevant policies and strategic requirements for developing new types of productivity in Chongqing, this team should periodically assess and update the content of innovation and entrepreneurship education courses. Special attention should be given to timely adding interdisciplinary courses according to developments in the artificial intelligence industry, such as "Ethics and Law in Artificial Intelligence" for ethical issues in AI technology applications and "Technological Innovation and Social Impact" for value judgments in digital information technology applications.

4.1.2 Innovating teaching methods

The construction of new AI colleges needs to fully leverage their professional and technological advantages to actively explore ways and means of cultivating innovative and entrepreneurial talents. For example, flipped classrooms can be introduced, where students are instructed to read relevant literature and watch course videos before class, think about and explore the issues therein, and prepare for classroom learning and discussions. Utilizing platforms such as AI laboratories and innovation centers, students can be organized to conduct innovative experiments and technology research and development. Through teacher-student interactive discussions and group learning, students' competition and project development capabilities can be enhanced.

4.2 Comprehensive deepening of university-enterprise cooperation

4.2.1 Jointly building industry colleges with enterprises

Chongqing's new AI colleges can strengthen university-enterprise cooperation with leading enterprises in the new energy vehicle industry, electronic information industry, and other sectors by signing cooperation agreements to establish industry colleges. Together, they can explore and design training programs for innovative and entrepreneurial talents, collaboratively build practice bases and experimental research and development centers for such talents, invite corporate mentors to teach innovation and entrepreneurship courses and provide entrepreneurial guidance to university students at the industry colleges, and increase opportunities for students from new AI colleges to intern at key enterprises, such as participating in technology research and development, product design, and functional testing.

4.2.2 Improving the innovation and entrepreneurship incubation system

Firstly, universities and enterprises should jointly build innovation and entrepreneurship service centers, where mentors from both sides provide one-stop services such as project consultation, planning and implementation, and policy support for university students. Secondly, universities and enterprises should jointly build innovation and entrepreneurship incubation bases, actively integrating internal and external innovation and entrepreneurship resources to support the incubation of high-quality university student innovation and entrepreneurship projects. Thirdly, universities and enterprises should jointly establish innovation and entrepreneurship funds to support innovation and entrepreneurship training programs for students at new AI colleges and encourage experts and scholars to scientifically assess risk and funding issues in the process of university student innovation and entrepreneurship. Fourthly, universities and enterprises should jointly organize innovation and entrepreneurship competitions, inviting mentors from both inside and outside the university and AI industry experts to serve as judges, providing prize money and incubation resources for excellent innovation and entrepreneurship projects, and promoting the conversion of innovation and entrepreneurship achievements.

4.3 Advancing innovative practical education

4.3.1 Facilitating the connection of practical projects

New AI colleges should deepen cooperation with key enterprises in the AI industry to jointly develop innovation and entrepreneurship practical projects, actively guiding university students to participate in practical activities such as technological innovation and product research and development. Practical problem-solving solutions should be improved based on the actual needs of market enterprises. For example, an internal and external mentor system can be improved, with each student at the new AI college being assigned a mentor to participate in guiding practical projects throughout the process, while also timely assessing and providing feedback on students' actual performance in practical projects.

4.3.2 Strengthening international practical exchanges

As a secondary college of a university, the construction of a new AI college and the cultivation of innovative and entrepreneurial talents naturally cannot be separated from the strong support of university leaders and various departments. The new AI college should seize the opportunity of the university establishing cooperative relationships with other universities at home and abroad to actively carry out student exchange programs, selecting outstanding students to study and exchange at other universities, helping students broaden their international horizons, enhance their ideological understanding, and master the latest technologies. At the same time, the new AI college also needs to utilize international and domestic competitions and academic seminars to educate students to improve their cross-cultural communication abilities.

4.4 Strengthening the construction of the teaching staff

4.4.1 Introducing high-end talents

The cultivation of innovative and entrepreneurial talents in new AI colleges cannot be separated from an excellent teaching staff. The rapid technological development in the AI industry, especially the rapid upgrading of cutting-edge technologies, requires the college to introduce high-end talents who possess the latest technologies and high qualifications. For example, information on recruiting talents can be published through channels such as headhunting companies and academic conferences, long-term cooperative relationships can be established with foreign universities to jointly carry out scientific research projects and talent cultivation, the welfare benefits of introduced talents can be increased, and the ability to cultivate innovative and entrepreneurial talents can be included in assessment indicators to attract top talents from home and abroad and form an excellent teaching team.

4.4.2 Strengthening teacher training

Due to the rapid technological advancements in the field of artificial intelligence, if the faculty of new AI colleges solely focus on routine course teaching, they may find it difficult to keep up with the latest technologies in a timely manner, which in turn may lead to a mismatch between the cultivation of innovative and entrepreneurial talents and the market's recruitment needs. Therefore, new AI colleges need to establish a teacher development fund to support professional teachers in participating in domestic and international academic conferences, study visits, technical training, and other activities.

This research was financially supported by the General Research Project on Student Affairs at Chongqing University of Science and Technology, titled "Research on the Path of Carrying Out Legal Culture Education for College Students by Counselors in Science and Engineering Colleges in the New Era," with the project number of xgbkt202418.

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