Practical Exploration of College Students' Career Planning in the Perspective of Artificial Intelligence - Analysis Based on the GROW Model

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Article Information

Abstract

With the rapid advancement of artificial intelligence technology, college students are facing unprecedented opportunities and challenges in career planning. This paper aims to explore how college students can effectively plan their careers in the context of the artificial intelligence era, and conducts practical exploration based on the GROW model. The GROW model is a widely used framework in coaching and consulting fields for setting goals and solving problems, which covers four key stages: goal (Goal), reality (Reality), options (Options), and will (Will). The article analyzes the impact of artificial intelligence on the job market and discusses how college students should use artificial intelligence for career assessment, how to accurately understand the current situation of themselves and the career environment, how to master the application of artificial intelligence in personalized career planning, and how to combine artificial intelligence for education and training related to job seeking. The research results show that the GROW model can assist college students in organizing their career planning in the artificial intelligence era, thereby enhancing their employment competitiveness and career adaptability. In addition, the theoretical guidance and practical paths of career planning in the artificial intelligence era have significant practical significance and application value for college students.

1. Introduction

The central government continues to attach great importance to the employment and career development issues of college students, and has issued notifications and policy documents many times, emphasizing the need to strengthen career education and employment guidance in colleges and universities to help college students prepare for employment in advance and promote high-quality and full employment. For example, the Ministry of Education announced that the second National College Students' Career Planning Competition will be held from October 2024 to April 2025. The competition aims to guide college students to establish correct concepts of growth and talent and scientific concepts of job selection and employment through competitive activities, to reasonably plan their academic and career development paths, thereby enhancing their employment competitiveness.

These policies and measures provide new guidance directions and dynamic support for college students' career planning. However, with the rapid development of artificial intelligence technology, the job market is experiencing unprecedented changes. Many traditional job positions are gradually being replaced by intelligent technologies, while new career fields are presenting new skills and quality requirements for college students. Therefore, how college students use artificial intelligence technology for career assessment, how to accurately grasp the current situation of themselves and the career environment, how to recognize and utilize the personalized career planning services provided by artificial intelligence, and how to combine artificial intelligence for education and training related to job seeking have become important issues that need to be addressed urgently.

1.1 Literature Review

With the rapid advancement of technology, artificial intelligence (AI) has penetrated various aspects of society, profoundly impacting university students' career planning. When examining the issue of university students' career planning, the importance of AI technology is increasingly prominent. This technology not only provides university students with more precise and personalized employment guidance but also drives innovations in educational models, laying a solid foundation for their future development (Zhang & Li, 2023).

Leveraging big data analysis and machine learning algorithms, AI technology can track market dynamics and demand changes in real time, accurately predicting future development trends. For instance, higher education institutions have utilized AI technology to build career planning platforms. By conducting in-depth analysis of employment market data over the years, these platforms predict the evolution of popular careers in the coming years and provide valuable career information to university students, helping them gain insights into the future and seize opportunities (Wang et al., 2022). Through these platforms, university students can choose career paths with development potential based on their personal interests and strengths, avoiding blindly following trends or entering saturated professions.

AI technology also plays a pivotal role in the decision-making process of university students' career planning. The system assesses students' abilities and interests through intelligent algorithms and then recommends suitable career directions based on the test results. This personalized guidance approach not only helps university students optimize their personal career development but also enhances their decision-making abilities and adaptability (Chen & Zhao, 2023). The continuous follow-up function of AI technology provides dynamic support for university students' careers. Applications such as AI career mentors can update job recruitment information and industry dynamics in the employment market in real time, providing university students with the latest employment information and career development suggestions.

AI technology can effectively assist university students in self-assessment. By utilizing AI assessment systems, students' skills, personality traits, and interests can be accurately analyzed. This enables students to clearly recognize their strengths and weaknesses and accordingly discover suitable career paths. For example, for students who excel in logical thinking and possess an exploratory spirit, AI may recommend careers in programming or scientific research. Simultaneously, based on students' career planning goals, it can recommend relevant online learning resources and training courses to help them continuously improve their professional qualities and competitiveness (Liu et al., 2023). This intelligent learning approach not only enhances university students' academic achievements but also cultivates their innovative thinking and autonomous learning abilities.

Therefore, the importance of AI in university students' career planning cannot be overlooked. It not only provides university students with precise and personalized career guidance but also promotes innovations in educational methods, improving their overall qualities and career development capabilities (Xu et al., 2023).

2. Research Methods

Enhancement of Precision in Career Interest Assessment

With the help of artificial intelligence technology, especially the application of big data analysis and machine learning algorithms, the accuracy of career interest assessments has been significantly improved. Through these advanced technologies, the system is able to conduct comprehensive analysis on individual behavioral data, learning records, social media activities, and other multi-dimensional information. This comprehensive analysis method makes the assessment results more accurate and allows for a deeper understanding of an individual's career inclinations and interests. Artificial intelligence can not only identify potential interests in specific fields but also predict future career development paths, thus providing strong support for individual career planning and corporate talent selection.

With the assistance of artificial intelligence technology, career interest analysis can provide individuals with customized career planning and professional advice. Such customized career planning not only promotes the realization of individual self-worth but also significantly enhances their competitiveness in the workplace. In the field of education, artificial intelligence technology also plays a significant role. It can provide personalized learning content and path planning based on students' learning abilities and interests. This personalized education model not only stimulates students' interest and enthusiasm for learning but also improves the efficiency of educational resource allocation. In the field of vocational training, AI systems can also recommend suitable training courses and learning resources based on learners' career interests and career development needs.

In the field of recruitment, the application of artificial intelligence technology has significantly improved the accuracy and efficiency of talent matching. Enterprises can quickly identify potential candidates who meet job requirements by using artificial intelligence systems to intelligently screen and preliminarily assess job seekers' resumes. In addition, artificial intelligence systems can also recommend suitable positions to job seekers based on their career interests and skill characteristics, thereby enhancing satisfaction and success rates in the recruitment process.

The application of artificial intelligence in vocational skills and competence assessment

With the continuous advancement of artificial intelligence technology, numerous intelligent teaching software and online education platforms have emerged. These platforms leverage artificial intelligence systems to provide students with customized teaching support and feedback mechanisms. By analyzing students' learning abilities, interest preferences, and study habits, the system can deliver personalized teaching content and methods. This approach not only enhances teaching efficiency but also significantly improves the quality of education, allowing students to have a better learning experience and achieve better learning outcomes.

In the current recruitment market, many recruitment websites and applications have integrated artificial intelligence technology to provide more accurate and efficient recruitment services. These intelligent recruitment platforms use intelligent matching mechanisms for job seekers and positions to quickly screen out the most suitable candidates for specific jobs. Employers can easily find professional talents that meet job requirements through these platforms, while job seekers can also find suitable job opportunities faster. This intelligent matching mechanism significantly improves recruitment efficiency and reduces the waste of human resources.

In the field of career planning, many professional agencies have begun to apply artificial intelligence technology to provide more accurate and personalized services. These agencies use artificial intelligence systems to conduct career interest analysis and career development path planning. By analyzing clients' personal backgrounds, skills, interests, and career goals, artificial intelligence systems can provide customized advice and planning solutions, helping clients plan their careers more effectively and achieve their career goals. This intelligent career planning service not only improves consulting efficiency but also provides clients with more scientific and practical planning advice.

3. Result and Discussion

According to the forecast analysis by the International Data Corporation (IDC), by 2024, the global artificial intelligence market size is expected to grow to $500 billion. This growth trend not only provides professionals with a vast space for career development but also imposes higher demands on individual career planning. The importance of career planning lies in its ability to assist individuals in clarifying career goals, developing strategies to achieve those goals, and maintaining competitiveness in a constantly changing industry environment. For instance, by using the SWOT analysis model (which stands for analyzing personal strengths, weaknesses, opportunities, and threats), professionals in the field of artificial intelligence can more clearly recognize their position within the industry, thereby formulating career plans that are more aligned with their personal development. As Steve Jobs once said, "You can't connect the dots looking forward; you can only connect them looking backwards." Therefore, through systematic career planning, individuals can better grasp the present and pave the way for future career development. Thus, in the context of artificial intelligence application career planning, it is crucial to value the forward-thinking and systematic nature of personal development.

Innovative applications of artificial intelligence in career planning for college students

With the continuous development of artificial intelligence technology, online programs are playing an increasingly significant role in college students' career planning. The AI-based rapid resume generation system, utilizing cutting-edge technologies such as speech recognition conversion, optical character recognition, and image recognition, provides job seekers with a convenient resume filling solution. This system significantly simplifies the resume creation process, enabling job seekers to complete and submit their resumes more efficiently. The AI expert resume analysis system offers effective evaluations and guidance for issues that may exist in job seekers' resumes, such as lack of突出 highlights or mismatch between personal background and target positions. Through the system's analysis, job seekers can more clearly identify the strengths and weaknesses of their resumes and make targeted optimizations.

Furthermore, the multimodal AI simulated interview system is an important innovative application. Based on common issues in the recruitment process, it has customized a set of interview dialogue databases. By simulating the role of an interviewer through AI, it reproduces real interview scenarios in the form of video responses, allowing job seekers to accumulate interview experience and enhance their interview skills in a simulated environment. This system helps job seekers more clearly recognize their areas of strength, enabling precise career positioning.

Additionally, online programs have constructed a talent community through big data analysis technology. This community achieves precise connections between alumni networks and regional communities, providing job seekers with an interactive platform to exchange job-seeking experiences and expand professional networks. This not only helps job seekers obtain more career information but also promotes cooperation and exchange among them.

The virtual three-dimensional image customization function is another notable application. Based on the resume information submitted by users on the online platform and their participation in various career assessment results, the system can construct a three-dimensional virtual image of the job seeker. At the same time, this function also allows users to customize their images according to personal preferences, providing job seekers with more personalized display opportunities.

Finally, the customized ability assessment system relies on big data analysis and cloud computing technology to extensively collect and process skill data from practitioners in different industries. It has constructed industry-specific professional ability models and established a corresponding professional ability question bank. Enterprises can use this assessment system to evaluate job seekers' abilities, while job seekers need to complete the questions within a limited time without interruption. This system not only improves the efficiency and accuracy of recruitment but also provides strong support for job seekers' career development.

In summary, the innovative applications of online programs in college students' career planning provide job seekers with more convenient, efficient, and personalized services, helping them better plan their careers.

Suggestions for the application of artificial intelligence in career planning for college students

In the current educational environment, how college students utilize artificial intelligence technology for career development planning has become a focal point of their attention. At the initial stage of career planning, students must first establish clear career goals. This process typically requires a thorough analysis of personal interests, abilities, values, and market demands. Traditionally, students might rely on career planning courses, career counseling services, or self-reflection to determine their career paths. However, with the assistance of artificial intelligence technology, the efficiency and accuracy of this process can be significantly enhanced. Students can utilize AI career assessment tools based on big data and machine learning algorithms for self-analysis. These tools comprehensively evaluate students' personal traits, interest preferences, skill levels, and other information, and recommend suitable career paths accordingly. By completing questionnaires, participating in online tests, and other means, students can quickly obtain customized career analysis reports, providing a scientific basis for subsequent planning.

After establishing career goals, students need to formulate detailed action plans, which include learning relevant skills, accumulating practical experience, and expanding interpersonal networks. Artificial intelligence technology also plays a crucial role in this step. For instance, students can use online learning platforms (such as MOOCs) to learn advanced knowledge in the field of AI, such as deep learning and natural language processing. These platforms not only provide abundant course resources but also offer personalized learning paths through intelligent recommendation systems. Furthermore, AI technology helps students efficiently manage their learning progress and assess learning outcomes. By intelligently analyzing students' learning data, AI systems can provide real-time feedback on learning achievements, point out students' weak areas, and recommend targeted learning resources. This personalized learning experience contributes to enhancing students' learning efficiency and self-confidence.

In terms of practical experience, students can accumulate it by participating in AI project practices, technical competitions, and other activities. These activities not only hone students' practical operation skills but also cultivate their teamwork spirit and innovative thinking. AI technology can also assist students in establishing extensive network resources. During the career planning process, students also need to continuously monitor market dynamics and personal development situations, adjusting their career plans as necessary. The real-time data analysis capabilities of artificial intelligence technology play a vital role here. By collecting and analyzing the latest information from the job market, AI systems can provide students with timely career advice and development trend predictions, helping them make more informed career decisions.

In summary, the process of college students utilizing artificial intelligence technology for career planning is an efficient, accurate, and personalized endeavor. By leveraging AI technology for self-assessment, formulating action plans, accumulating practical experience, and staying informed about market dynamics, college students can more effectively plan their careers and lay a solid foundation for future professional development.

4. Conclusions

This article summarizes the practical exploration of career planning for college students from the perspective of artificial intelligence, proposing a systematic planning method based on the GROW model. The study reveals the application of AI technology in career assessment and path planning, enhancing employment competitiveness. The research innovatively combines AI with career planning theory, but does not address the limitations of AI technology applications. Future research can explore strategies for the deep integration of AI and career planning.

5. References

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