

Dilemmas and Paths of College Online Education in the Digital Age

Zhou Chao^{1,a,*}, Lou Kechen^{2,b}, Dai Qunsen^{3,c}

¹Faculty of Continuing Education, Zhejiang University of Technology, Hangzhou, Zhejiang, China

²Faculty of Computer Science and Technology, Zhejiang University of Technology, Hangzhou, Zhejiang, China

³School of Education and Psychology, Shaoxing University, Shaoxing, Zhejiang, China

^achaozhou@zjut.edu.cn, ^blkc@zjut.edu.cn, ^cdqs0610@163.com

*Corresponding author

Keywords: The Digital Age, Online Education, Dilemmas, Paths

Abstract: With the advent of the digital age, the role of college online education has become increasingly prominent. Deeply understanding the new situation of college online education in the digital age and leveraging its advantages has become a significant research trend at present. An in-depth analysis of the practical dilemmas of college online education shows that they mainly manifest in the backward concept of online education, insufficient attractiveness of content, outdated methods, lack of team capabilities, and imperfect mechanisms. Furthermore, targeted strategies are proposed from five aspects: changing concepts, optimizing content, innovating methods, strengthening team building, and improving mechanisms, aiming to promote the high-quality development of college online education in the digital age.

1. Introduction

In the context of the rapid development of information technology, the digital wave has swept across all fields of society, bringing about earth-shaking changes to the educational environment of colleges and universities. The traditional campus education space is no longer confined within the walls of the physical campus; the online virtual space has become a new field for college education. Through various online platforms, including social media, online learning platforms, and academic forums, students can access a vast amount of information, expand their knowledge horizons and social circles, and enjoy more flexible and diverse learning experiences. However, the openness and virtuality of the online space also provide opportunities for the dissemination of harmful information and erroneous ideological trends, which can exert potentially negative impacts on students' ideological concepts, value orientations, and behavioral patterns. Some students are vulnerable to the interference of such harmful information, leading to distorted values and weak moral awareness. Faced with the various changes brought about by the digital age, in-depth research on the dilemmas and strategies of college online education is of great practical significance for improving the quality of college education and cultivating high-quality talents who meet the needs of the times.^[1]

2. The Connotation and Characteristics of College Online Education in the Digital Age

College online education refers to the educational activities carried out by colleges and universities using online resources and platforms to conduct ideological and political education, impart knowledge, and cultivate abilities, to cultivate socialist builders and successors who are well-developed in moral, intellectual, physical, aesthetic, and labor education. It is an extension and expansion of college education in the online era, with unique connotations and characteristics. College online education is characterized by openness. The Internet breaks the temporal and spatial limitations of traditional education, enabling the education space of colleges and universities to expand from the closed campus to the open online world. Interactivity is also an essential feature of college online education. In the online environment, communication between teachers and students, as well as among students themselves, is no longer restricted by time and space. This enhances communication efficiency, facilitates good interaction between teachers and students, and improves the effectiveness of education. College online education also features immediacy. With the rapid dissemination of online information, colleges and universities can promptly deliver the latest educational and teaching content, policies, regulations, current hot topics, and other relevant information to students.

3. The Practical Dilemmas of College Online Education in the Digital Age

3.1. Backward Concept of Online Education

In the digital age, some colleges and universities still hold relatively backward concepts regarding online education, adhering to traditional educational concepts and failing to recognize the importance and urgency of online education fully. The traditional educational concept focuses on classroom teaching, centers on teachers, and emphasizes the one-way transmission of knowledge, while paying insufficient attention to students' learning characteristics and needs in the online environment. Under the influence of this concept, colleges and universities often lack systematic planning and in-depth thinking in online education, failing to integrate online education organically into the school's overall educational system. Some colleges and universities only understand online education as simply releasing information and promoting courses through online platforms, without fully exploring the educational value of online resources. At the same time, some colleges and universities also fail to fully recognize the profound impact of the Internet on students' ideological concepts, value orientations, and behavioral patterns, and lack the cultivation of students' online literacy and online security awareness. In addition, some teachers in colleges and universities also have the problem of outdated online education concepts. They consider online teaching only as a supplement to traditional teaching, lack a sense of innovation in online teaching, and adopt a single teaching method, which cannot meet students' learning needs in the digital age, resulting in poor effectiveness of online education.

3.2. Lack of Attractiveness in Online Educational Content

Online educational content is a key element in achieving the goals of online education. However, the online educational content of some colleges and universities currently has many problems, making it difficult to attract students' attention and participation. On the one hand, online educational content is often overly theoretical and lacks vividness and interest. The online courses and educational resources of some colleges and universities tend to focus on the inculcation of theoretical knowledge, using dull texts and lengthy explanations, while lacking vivid forms such as case analyses and storytelling, which makes it difficult to resonate with students. On the other hand,

the online educational content is divorced from reality and disconnected from students' lives and needs. College online educational content should be closely linked to students' learning, life, and future career development, and should also address the hot issues and practical needs that students care about. [2] However, the online educational content of some colleges and universities fails to do this. They lack in-depth research on students' interests and needs, resulting in empty content and a serious problem of formalism. At the same time, the forms of online educational content are relatively limited, mainly based on texts and pictures, and lack diverse presentation methods. In the digital age, students accept information in more diverse ways, and they are more inclined to acquire knowledge through forms such as videos, audios, animations, and interactive games. However, the online educational content of some colleges and universities fails to keep pace with this trend, does not fully utilize new media technologies to innovate content forms, and thus cannot meet students' diverse needs.

3.3. Outdated Methods of Online Education

Some colleges and universities still adopt the traditional one-way indoctrination teaching method in the process of online education, which lacks interactivity and innovation and is difficult to stimulate students' interest and initiative. In online teaching, some teachers simply transfer the offline classroom teaching method to the online platform, conducting live lectures or releasing teaching videos through online platforms. Students can only passively accept knowledge, lacking a sense of participation and interactivity. This type of teaching method, lacking interaction, can make students feel bored during the learning process, resulting in low learning enthusiasm and unsatisfactory teaching outcomes. Colleges and universities also lack innovative teaching methods and online educational tools. With the continuous development of information technology, numerous new teaching methods and technologies have emerged, including project-based learning, problem-oriented learning, virtual reality teaching, and artificial intelligence-assisted teaching. [3] However, some colleges and universities fail to apply these new methods and technologies to online education promptly and still adopt the traditional lecture-based teaching method. In addition, colleges and universities also lack attention to students' personalized needs in online education. Some colleges and universities do not fully utilize technologies such as big data and artificial intelligence to analyze students' learning behaviors and interests, thereby providing students with personalized learning recommendations and guidance.

3.4. Insufficient Capabilities of the Online Education Team

The capabilities and quality of the college's online education team directly affect the effectiveness of online education. However, at present, the online education team of some colleges and universities has problems such as insufficient professional knowledge and skills, a lack of online literacy, and innovative awareness. In terms of professional knowledge and skills, some members of the college online education team, particularly ideological and political educators and counselors, lack systematic online knowledge and training in information technology. They are not proficient in the use of online platforms and cannot effectively use online resources to carry out educational work. Online literacy is also an important capability that the online education team needs to possess. However, some members of the college online education team lack online literacy, have low sensitivity to online public opinions, and cannot identify and guide online information. When facing harmful information and erroneous ideological trends on the Internet, they often cannot detect them in a timely manner and conduct effective guidance and correction, leading to students being negatively affected. In addition, some members of the college online education team are accustomed to the traditional work mode, lack a sense of innovation and exploration spirit, and

cannot innovate the methods of online education according to changes in the online environment and students' characteristics.

3.5. Imperfect Mechanism of Online Education

Problems existing in the management, coordination, evaluation, and feedback aspects of the college's online education mechanism have seriously restricted the effective development of educational work. In terms of management mechanisms, some colleges and universities lack a unified online education management organization and a clear division of responsibilities, resulting in issues such as multi-departmental management and unclear responsibilities in online education work. Different departments often lack effective communication and collaboration in online education, acting independently and failing to form a cohesive force in education. The imperfection of the coordination mechanism also makes it difficult for college online education to advance smoothly. In the process of online education, the collaborative cooperation of various departments of the school, teachers, students, parents, and other parties is required. However, some colleges and universities lack an effective coordination mechanism and cannot fully mobilize the enthusiasm and initiative of all parties. The lack of evaluation and feedback mechanisms is another critical problem in the college online education mechanism. Currently, some colleges and universities lack a scientific and reasonable online education evaluation index system, which prevents them from accurately assessing the effectiveness of their online education work. In the evaluation process, they often focus on form and quantity while ignoring the quality and effect of education.

4. The Promotion Strategies for College Online Education in the Digital Age

4.1. Changing the Concept of Online Education

Colleges and universities need to establish a student-centered educational concept and fully respect students' dominant position in online education. Through methods such as big data analysis and questionnaires, they should gain an in-depth understanding of students' interests, learning needs, and ideological trends. For example, utilizing big data technology to analyze students' behavioral data on online learning platforms, including course browsing records, learning duration, and homework completion status, enables the accurate identification of students' learning preferences and difficulties, providing them with personalized learning recommendations and guidance. In terms of ideological and political education, attention should be paid to the hot topics discussed by students on online social platforms. Education and guidance should be carried out with the issues that students care about as the starting point, thereby enhancing the affinity and appeal of ideological and political education. It is also crucial to establish a concept of integrated development. Colleges and universities should break down the barriers between various departments and links in the traditional educational model and promote the in-depth integration of online education with classroom teaching, practical teaching, and campus culture construction. The concept of innovation-driven development is the driving force for promoting the development of college online education. Colleges and universities should encourage teachers and educational managers to actively explore new methods and models of online education and bravely try new technologies and means. At the same time, an innovation incentive mechanism for online education should be established to commend and reward teachers and teams that have made outstanding achievements in online education innovation, thereby stimulating their enthusiasm for innovation.

4.2. Optimizing Online Educational Content

Combining current hot topics and students' needs is the key to optimizing online educational content. Colleges and universities should pay close attention to domestic and foreign current affairs hotspots, social focus issues, and topics of concern to students, and promptly integrate these contents into online education. In terms of ideological and political education, around the spirit of our country's major conferences and national policies, relevant online learning materials such as short videos and graphic interpretations should be produced to help students deeply understand and grasp them. At the same time, attention should be paid to students' practical needs in learning, life, and employment, and targeted services and guidance should be provided. In terms of career guidance, according to the employment directions of students in different majors, corporate experts should be invited to give online career lectures, sharing industry development trends, job-hunting skills, and career planning experience, to provide students with practical employment information and guidance. Enriching educational content and broadening knowledge horizons are also essential. The online educational content of colleges and universities should cover ideological and political education, professional knowledge learning, and comprehensive quality cultivation. In terms of professional knowledge, the content of online courses should be updated in a timely manner, integrating cutting-edge disciplinary knowledge and the latest industry developments, so that students can have access to the most cutting-edge professional information. At the same time, attention should be paid to cultivating students' comprehensive quality. Online courses and resources on mental health education, innovation and entrepreneurship education, and professional quality improvement should be offered to help students achieve all-around development.

4.3. Innovating Methods of Online Education

The use of new media technologies to carry out interactive teaching can break the traditional teaching model of one-way lecture by teachers and realize two-way interaction and communication between teachers and students. By utilizing tools such as online teaching platforms and social media, students can be organized to participate in activities like online discussions and group cooperative learning. Experiential teaching allows students to acquire knowledge and skills through personal experience, thereby enhancing the learning effect. Colleges and universities can utilize technologies such as virtual reality (VR) and augmented reality (AR) to create experiential learning environments, including virtual experiments, internships, and scenario simulations. Inquiry-based teaching focuses on cultivating students' independent inquiry ability and innovative thinking. Colleges and universities can set up inquiry-based learning tasks and projects in online education to guide students to independently discover problems, put forward hypotheses, collect data, conduct analysis and demonstration, and finally solve problems.[4] The development of interactive online courses and the increase of interactive links in courses, such as online Q&A, group discussions, and role-playing, can enable students to participate in the learning process and improve their enthusiasm and initiative in learning. At the same time, students should be encouraged to conduct online academic research and participate in academic forums and exchange activities to enhance their academic literacy and research skills.

4.4. Strengthening the Construction of the Online Education Team

In the digital age, online education necessitates continuous innovation in work ideas and methods to keep pace with the evolving times and the changing needs of students. Training is a meaningful way to improve the professional quality and online skills of the online education team. Colleges and universities should regularly organize training courses and seminars for teachers,

counselors, and other education team members related to online education, and invite experts and scholars to provide lectures and guidance.^[5] The training content includes online teaching methods, online platform operation skills, online public opinion analysis and guidance, and online security knowledge. Introducing talents with professional backgrounds, such as network technology and new media operation, to enrich the online education team is also necessary. These professional talents can introduce new concepts and technologies to online college education, promote the innovative development of online education, and enhance the effectiveness of online education. In addition, colleges and universities should incorporate online education work into the performance evaluation system for teachers and counselors, and commend and reward those who have performed outstandingly in this area. At the same time, teachers and counselors should be encouraged to undertake teaching reform and scientific research projects related to online education, and corresponding rewards and support should be provided for the research results obtained, thereby stimulating their enthusiasm for innovation and scientific research motivation.

4.5. Improving the Online Education Mechanism

Establishing and improving the management mechanism and clarifying the division of responsibilities of various departments in online education is the first step. A special leading group for online education work should be set up, with school leaders as the group leaders and the heads of relevant departments, such as the Publicity Department, the Student Affairs Department, the Academic Affairs Office, and the Information Center, as members, to coordinate and manage the online education work of the whole school. At the same time, the work systems and norms for online education should be established and improved, such as the online platform use management system, the online information release review system, and the online public opinion emergency response plan, to ensure that the online education work is carried out in accordance with the rules. Optimizing the coordination mechanism helps to form a joint force in online education.^[6] Communication and collaboration between various school departments should be strengthened, and a regular work coordination meeting system should be established to discuss significant issues and solutions related to online education in a joint manner. Communication and cooperation between colleges and universities and parents should be strengthened, and a home-school co-education mechanism should be established. Cooperation between colleges and universities and society should be strengthened, and social resources should be fully leveraged to support online education initiatives. Cooperation with enterprises can be carried out to develop practical teaching and internship programs, and cooperation with social organizations can be conducted to carry out public welfare activities and voluntary services, to expand the channels and space of online education. Improving the evaluation and feedback mechanism is essential to ensure the quality of all aspects of online education work. A scientific and reasonable online education evaluation index system should be established to assess online education work from multiple dimensions, including educational effectiveness, student satisfaction, content quality, and innovation in methods.

Acknowledgement

The article was funded by the project “Research on Digital Empowerment Driving Innovation in Network Ideological and Political Education in Universities” (21GXSZ008YB) from Special Project on Ideological and Political Work in Colleges and Universities of Zhejiang Province; "Research on the Construction of Quality Improvement Model for University Continuing Education in the New Era" (2024-95) from Research Project on Adult Education and Vocational Education of Zhejiang Province.

References

- [1] Wu, M. Y., & Gao, S. N. (2022). *The Three Dimensions of the Implications of Online Education*[J]. *China Higher Education*, (17): 33-35.
- [2] Luo, Y. T., & Li, T. T. (2024). *On the Symbolic Discourse Art of Online Education*[J]. *Studies in Ideological Education*, (11): 124-131.
- [3] Li, Z., & Chen, Z. Y. (2024). *College Online Education: How Can Generative Artificial Intelligence Empower It?*[J]. *Educational Review Monthly*, (11): 95-102.
- [4] Xu, S. F. (2019). *Online Education: A New Paradigm for Ideological and Political Education in Colleges and Universities in the New Era*[J]. *China Higher Education*, (09): 50-52.
- [5] Li, Y. J. (2020). *Research on the Construction of College Online Education Teams in the Era of Educational Informatization*[J]. *China Higher Education*, (24): 31-32.
- [6] Luo, Y. T., & Fu, Y. Z. (2018). *On the Era Value of Constructing the Collaborative Mechanism of College Online Education*[J]. *Ideological and Political Education Research*, 34(04): 128-134.