

Exploring the Digital Transformation of Teaching in Humanities and Arts Majors from the Perspective of New Liberal Arts Construction

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Abstract: With the national advocacy for the construction of new liberal arts, in response to the continuous innovation of digital technology and the spirit of moral education that keeps pace with the times in higher education, the concepts, methods, environments, and technologies of talent cultivation in humanities and arts higher education are facing systemic changes. This article reviews the current state of theory and practice of digital transformation in teaching of humanities and arts majors, and proposes issues and strategies in the digital transformation. Based on the background of new liberal arts construction and related concepts, it combs the existing issues in the field of higher education in terms of theoretical research, teaching practice, social environment, and technological development of humanities and arts majors. It then proposes the goals and paths of digital transformation. The article analyzes the digital transformation of teaching in humanities and arts majors from four dimensions under the background of new liberal arts construction: theoretical integration, multiple practices, policy support, and technological iteration, providing a direction for thinking about the advancement of the digital transformation system project.

Keywords: New Liberal Arts; Humanities and Arts Majors; Digitalization.

1. Background of New Liberal Arts Construction and Connotation of Digital Transformation in Teaching of Humanities and Arts Majors

1.1. Background and Definition of New Liberal Arts Construction

In 2016, it was pointed out by General Secretary Xi Jinping at the symposium on work in philosophy and social sciences: A country without advanced natural sciences cannot be at the forefront of the world, and a country without prosperous philosophy and social sciences also cannot be at the forefront of the world. In 2018, the Department of Higher Education of the Ministry of Education proposed the requirements for vigorously developing the construction of "new engineering, new medical science, new agricultural science, and new liberal arts." In 2021, the Ministry of Education and five other departments issued the "Guiding Opinions on Promoting the Construction of New Educational Infrastructure and Building a High-Quality Educational Support System," which proposed to promote the integrated development of online and offline education through new educational infrastructure construction, and to promote the digital transformation, intelligent upgrading, and integrated innovation of education, in order to support the high-quality development of education. Under the call of the new era, the construction of new liberal arts needs to start from the actual situation of contemporary society, integrate, innovate, reshape, and recreate traditional liberal arts to adapt to the development of science and technology and the transformation of production relations. The construction of new liberal arts will continue to promote new models and new paths for the integration of industry and education, and the corresponding new majors, new courses, and their new content and methods will also become new issues faced by the training of talent in liberal arts in colleges

and universities, undertaking a mission with more timeliness, integration, and innovation. (ZHOU Xing & REN Shengshu, 2020).

1.2. Connotation of Humanities and Arts Majors Teaching

The humanities and arts majors differ from natural science and social science majors, focusing on distinct major concerns and core values. While the goals of natural science and social science are to address issues in human life such as economic and social domains, humanities and arts focus more on understanding and exploring humanity itself. Therefore, the teaching of humanities and arts majors is concerned with the comprehensive understanding of humanities and arts, and its core connotation can be summarized as follows:

First, the cultivation of humanistic literacy. By respecting, recognizing, understanding, and appreciating the inheritance vein of the heritage of human culture, the teaching constructs a holistic analytical framework for students regarding historical values and human behavior, fostering their ability to scrutinize and reflect on history, as well as their empathetic comprehension of aesthetics. (LIU Shuguang, 2020).

Second, the enhancement of artistic expression, which involves learning artistic theories and practical skills to master various forms and media of artistic expression, such as painting, music, dance, drama, design, etc.

Third, interdisciplinary research, where students engage in cross-disciplinary learning, integrating knowledge and ways of thinking from different fields to broaden their horizons and discover new possibilities for artistic creation and research.

Fourth, the development of thinking abilities. Through the analysis and evaluation of artistic works and cultural phenomena, students develop critical thinking skills, understand the meanings and values expressed by the works, and critically think and reflect on them at the social, ethical, and aesthetic levels.

1.3. Trends in the Digital Transformation of Teaching

With the development and transformation of information technology, digital technology has permeated every aspect of economic production, social life, and scientific research. This trend of change is inevitably altering the knowledge and skills required by society, as well as the underlying logical structures. It directly demands an update in the knowledge and skills related to human production and life. (Mou Yi, 2023) As professional institutions for nurturing talents, colleges and universities aim to cultivate talents that adapt to the development of society; hence, digital transformation has become an inevitable new challenge.

With the rapid development and widespread adoption of the internet, students now have a diverse range of ways to acquire knowledge and establish values. Compared to traditional teaching order and interaction models, new expectations and requirements are being set for the content and form of teaching by teachers. This is specifically reflected in the teachers' understanding and practical application ability of new technologies and devices. There is a demand to optimize the distribution of educational resources within the teaching structure and to use new tools or methods to enhance teaching effectiveness. The digital transformation of teaching requires the joint promotion of societal resources, a strengthened understanding and consensus on digital transformation, increased investment in technology promotion and equipment facilities, and the provision of professional training and support. Ultimately, this will establish an educational environment and policy system that adapts to digital transformation. It can be considered that digital transformation brings the development requirements for conceptual renewal and exploration of practical paths about the in-depth development of modern humanities and arts education.

2. Current Status and Problems of Digital Transformation in Teaching of Humanities and Arts Majors

2.1. Teaching Practices under the Requirements of New Liberal Arts Construction

2.1.1. New Requirements for Humanities and Arts Majors in the Context of New Liberal Arts

In October 2016, the Chinese Academy of Arts Education was established, bringing together experts, leaders and members of the discipline review group from fifty-four art colleges nationwide, to jointly discuss the construction strategies and paths following the independence of the Chinese art disciplines as a discipline category. This led to the formation of the "Hangzhou Consensus on the Construction of Chinese Art Disciplines." In November 2020, the New Liberal Arts Construction Working Group of the Ministry of Education held a meeting at Shandong University, where in-depth discussions were conducted on the innovative development path of Chinese higher liberal arts education in the new era, and the "New Liberal Arts Construction Manifesto" was released. This manifesto has provided comprehensive and precise guidance and leadership for the construction of new liberal arts. (Ni Minghui, Liu Chao & Li Nan, 2023) Since its proposal, the construction of new liberal arts has received widespread attention in the academic

community. Digital technology has further promoted the transformation of teaching models in humanities and arts majors. Through an understanding of the core requirements of digital transformation, digital technology has enabled traditional liberal arts to present more concrete forms of innovation. (Zhang Yan, Jin Yuexian & Wang Ce, 2020).

2.1.2. Digital Teaching Practices in Humanities and Arts Majors

The development of digital transformation requires a certain process. Firstly, it is necessary to establish infrastructure, secondly, teaching objectives must be precisely integrated with technological tools, and finally, deep integration and personal extension of digital teaching should be achieved, enabling teachers and students to proficiently master digital tools and corresponding resources to better accomplish preset teaching objectives. At present, the digital practice of education and teaching in our country has basically passed the stage of hardware construction and basic popularization, with education in large and medium-sized cities in the country as the main practice area. Computers, as traditional digital teaching carriers, have been widely applied in the vast majority of higher education institutions in the country. In cities with earlier and more mature use of information technology, such as Beijing and Shanghai, modern virtual reality technology has been widely used in subject teaching. In fields such as electronic sports and art education, which are professional talent training areas, there have been more opportunities for practice, accumulating a certain amount of successful experience.

2.1.3. The Impact of Digital Transformation on Discipline Construction

Digital technology has brought a broad space for the development of humanities and arts majors. These majors need to adhere to the aesthetic pursuit of teaching content and the diverse practice of teaching methods. The upgrade of digital technology should not come at the expense of neglecting the humanistic care and creativity in teaching. Humanities and arts majors can use digital platforms to display works, promote exchanges, and facilitate cross-space collaboration. At the same time, the digital transformation of humanities and arts majors can better meet the personalized needs of students, design innovative teaching methods for specific teaching issues, and make the cultivation of major talents more realistic.

2.1.4. The Role of Current Digital Technology in the Development of Academic Disciplines

By building a digital teaching environment and resources, universities can enhance students' digital cognitive abilities and teachers' levels of digital teaching, forming a collaborative digital academic management organization. In the field of humanities and arts, using digital means can elegantly and delicately showcase the charm of the discipline and convey emotional and thought processes. Digital transformation is not only a technological upgrade but also a process of cultivating students' awareness of online learning, extending learning to the level of daily life, and transcending the spatial boundaries of traditional classrooms. Major teachers adapt to digital teaching models, adjust traditional teaching strategies and design more attractive and efficient media-integrated teaching environments.

2.2. Main Problems and Difficulties Faced by Humanities and Arts Majors Teaching

2.2.1. The Limitations of Practical Guidance Due to The Lag of Theoretical Development

Traditional humanities and arts education is characterized by its historical and contemporary nature, often conducted based on an understanding of past human creative thinking activities. Traditional educational theories show a significant lag and limitations in supporting the digital age, which is not conducive to the development of modern educational work with a new knowledge background. Moreover, the existing humanities knowledge system mainly focuses on the refined understanding and processing of cultural symbolic knowledge and information. However, the theoretical development in the digital transformation requires exploring the generation and dissemination rules of new knowledge in the digital age, involving the interrelationship between individual and group knowledge generation, the complexity characteristics of teaching and learning, and the construction of a theoretical system with more practical operability and dynamic evolution capability for complex knowledge teaching or learning design.

2.2.2. The Restriction of Obsolete Knowledge and Skills on Major Development

Traditional humanities and arts teaching emphasizes communication, especially interactive questioning and heuristic guidance in face-to-face teaching, which is relatively fixed and paradigmatic in form. The introduction of digital technology requires technical demands for most teachers with a pure liberal arts educational background, such as new interactive modes created by emerging facilities, equipment, and software platforms. Some teaching cases show that seasoned education experts with rich teaching experience often have certain technical weaknesses; their knowledge structure, teaching content, and methods do not match the current technological iteration. Additionally, there is a small group of people who adhere to the traditional cognitive framework and are unwilling to pursue interdisciplinary thinking and exploration. This conservative teaching method may have some rationality for the traditional research model of humanities and arts disciplines. However, looking at the objective laws of technological development in the long term, it will narrow and restrict the survival and expansion space of humanities and arts major education.

2.2.3. The Restriction of Institutional Barriers on Disciplinary Innovation and Development

The proliferation of digitalization has transcended the spatial and temporal limitations of local education and has also broken down the boundaries between education and other social fields. The current education system still faces issues constrained by entrenched thinking, with schools, majors, and courses continuing to follow past models. In terms of physical form, it is anticipated that future universities will no longer have walls, and resources between schools will be fully exchanged and shared; in terms of operational models, schools will be more closely connected with society, and resources such as faculty, courses, facilities, and services will be fully utilized. These developments will lead education towards a student-centered connected system, bringing revolutionary changes to the traditional teaching management methods of universities. Current educational reforms in information technology are still limited by the existing education system, focusing on adjustments within the

framework of school, major, and course construction. Therefore, how to combine the existing higher education teaching system with social and industry development to achieve the social value transformation of major teaching technology upgrades is the objective challenge faced in implementing digital transformation.

2.2.4. The Challenge of Technological Security Risks to Major Teaching

In the process of digital transformation, it is essential to recognize the impact of the security issues inherent in technology on teaching work and to take corresponding measures to address them. (Ma Yanqi, Li Xuemei & Liang Min, 2023) First, technological security risks may lead to the leakage and misuse of information on digital platforms. Second, technological security risks may result in learning platforms being attacked by viruses, malware, or hackers, leading to the loss of learning materials, network interruptions, or chaos in the teaching process. Additionally, technological security risks may interfere with the smoothness and effectiveness of online teaching, necessitating the assurance of stable network connections and the provision of sufficient bandwidth to support the needs of online teaching. By adopting effective security measures and reasonable response strategies, educational institutions can gradually establish a robust security technology system to provide a high-quality and reliable teaching environment.

3. Goals and Strategies for the Digital Transformation of New Liberal Arts Teaching

3.1. The Target Path for the Digital Transformation in Teaching of Humanities and Arts Majors

3.1.1. Promoting In-Depth Theoretical Development and Innovation

The development direction of teaching theory is to focus on innovation and practicality to meet the needs of the digital age, cultivate students' comprehensive qualities, and emphasize cross-disciplinary cooperation and social responsibility. Digital transformation encourages educational institutions to actively explore innovative teaching methods, develop teaching resources reasonably and effectively, promote student-centered teaching models, focus on cultivating students' comprehensive qualities and abilities, and meet students' personalized learning needs.

With the support of digital technology, educational institutions can develop more innovative teaching tools and platforms, provide a variety of learning experiences, and stimulate students' interest in and imagination for humanities knowledge. The core goal of the digital transformation of humanities and arts education is the value realization of students' comprehensive qualities in social practice. Therefore, the cultivation of students' cross-disciplinary abilities and the innovation of teaching theory and practice methods should also keep pace with the times, leading to the formation of new ideas, new theories, and new methods in digital teaching practice.

3.1.2. Enhancing the Quality and Effectiveness of Major Teaching

The goal and ultimate purpose of education are reflected in talent cultivation. The innovative and critical thinking abilities that humanities and arts education focus on are

closely related to the progress of the times and the development of the industry. Digital technology, as the foundational technology of the information age, gives the most significant distinction between internet thinking and traditional industrial thinking. The development path of humanities and arts pays great attention to the absorption of new thinking and the use of new technology. Therefore, it can be said that digital transformation provides new opportunities for humanities and arts major education. For example, new digital application technologies can better restore historical events and vividly reproduce the cultural atmosphere of human society. Exploring new teaching models and methods in this application field can encourage students to think in a more immersive learning environment. Furthermore, big data and scientific computational models can more accurately analyze students' learning talents and thinking characteristics, helping them complete major studies around central tasks and decomposed goals. Such digital transformation will extend the outreach of humanities and arts education, improve the presentation of teaching quality and effectiveness, enhance the ability to achieve teaching goals, and enrich the multi-level development of teaching.

3.1.3. Strengthening Teaching Sharing and Exchange Cooperation

At present, experiential project courses led by industry-academia-research cooperation and online teaching by industry experts have become important vehicles for promoting the inheritance and reform of traditional cultural arts education. Interdisciplinary cooperation is an important aspect of innovative humanities and arts education, and closely integrating humanities and arts majors with natural science fields such as science, technology, and engineering is a new development path advocated by the construction of new liberal arts. (Deng Yan & Liu Liu, 2023) By using digital tools and methods in interdisciplinary industry-research cooperation, more innovative and practical teaching content and forms can be created to cultivate students' innovative thinking and problem-solving abilities.

In addition to interdisciplinary and inter-industry cooperation, it is also necessary to focus on breaking down regional barriers, allowing humanities and arts disciplines to step out of traditional culture, collide with different cultures around the world, and strengthen international exchanges and sharing. Drawing nutrition from different cultural roots can add new sparks to traditional cultural education. Digital transformation can play an important role in traditional humanities and arts disciplines going global, enabling the connotation of humanities and arts to find more concrete carriers, expand more diverse inheritance paths, and make the dissemination of the essence of Chinese culture more diversified.

3.1.4. Innovation in the Integration and Upgrading of Digital Technology

The innovation of technology requires the joint efforts of teachers and students. On the teacher side, there is a need to actively try digital tools and use digital technology to design teaching plans and activity programs that are more in line with modern teaching objectives. On the student side, students need to have a clearer self-awareness and practical self-discipline to avoid losing their way in the colorful digital and virtual world, and adhere to the learning objectives of their own majors. At the same time, digital transformation also needs to pay attention to protecting the privacy and security of students' personal information and original works.

Establish and improve data management and security protection mechanisms, strengthen awareness and skills training in network security to ensure the information security of students and teachers in the digital learning environment.

3.2. Countermeasures for the Digital Transformation of Humanities and Arts Major Teaching

3.2.1. Integration and In-depth Development of Theory

In the theoretical development of the digital transformation of humanities and arts major education, the following key points are generally noted:

On one hand, humanities and arts majors should always implement the people-oriented concept, taking "humans" as the starting point and the foothold, truly serving the educational goals at the center, and building supporting data management tools and data protection measures. On the other hand, in the process of integrating humanities and arts majors with other majors, special attention should be paid to the regulation of ethical order. In the digital transformation, a sound data application and early warning mechanism should be established. In addition, the development of theory needs to consider the reality of technological development, enhancing the level of educational informatization and evidence-based feedback capabilities. (Xu Jiang, 2021) From the perspective of the global development trend of higher education teaching, especially combined with the actual development of the post-epidemic era, the digital transformation of teaching in higher education to adapt to the progress of science and technology is an inevitable process. With the popularization and widespread use of digital teaching platforms, new learning interaction methods and teaching scene settings have gradually been accepted by students, and the traditional humanities and arts education teaching model and curriculum teaching practice have shown a diversified, personalized, and highly digital development pattern.

3.2.2. Diversified Construction of Major Teaching Practice

Combined with current digital tools, the digital transformation practice of humanities and arts major education has the following directions:

Firstly, enrich resources by digitizing textbooks and classic literature to increase reading convenience. Digitize the examination and homework systems to improve self-learning efficiency. Moreover, by introducing digital and database resources, such as images of art works, online courses, audio and video materials, etc., enrich the teaching content and enhance the intuitive feelings and understanding of domestic and foreign humanities and arts works by major students.

Secondly, expand methods by fully utilizing digital teaching platforms to achieve remote teaching, collaborative learning, and interactive discussions, and other teaching processes. Such as the current common construction of public teaching digital resources like MOOCs and Golden Courses, which fluidly re-disseminate content originally spread within a limited range through the form of online open courses.

Lastly, stimulate participation by using and developing new digital tools to create multimedia interactive digital teaching environments, presenting new types and forms of art. Encourage students to create original works through new digital technologies, breaking through the original forms of artistic expression, such as emerging a new generation of

artistic trends in the fields of digital painting creation, digital collection art dissemination, digital interactive design, etc.

3.2.3. Interdisciplinary Resource Sharing Mechanism

Utilizing the opportunity of digital transformation to promote the integrated development between humanities and arts majors and other disciplines. The application of digital technology enables humanities and arts majors to collaborate more closely with disciplines such as science, engineering, and mechanics, achieving complementary and shared knowledge. Since a single discipline has certain limits in the variables of its development, there is a life cycle crisis in the modern era where computational power is rapidly increasing. Increasing the richness of content exponentially by adding factors or dimensions has become a consensus.

In the past, traditional liberal arts and science teaching had certain barriers in understanding, with each discipline following different structures of understanding and logic of development, and the methods and goals of teaching were also different. The renewal of digital tools can help disciplines find common points at the technical media level, calculating and planning suitable paths for the integrated development of disciplines. Digital transformation has extended the boundaries and life cycle of traditional disciplines and professional teaching classifications.

3.2.4. Construction and Feedback of Teaching Platforms

When building a humanities and arts education platform, we need to consider from multiple aspects to ensure that the platform meets the teaching needs of teachers and students and promotes the comprehensive development of education. First, it is necessary to provide digital teaching tools and resources, including digital teaching materials, audio and video courseware, drawing tools, and music creation software, etc. The digital storage and sharing of these tools and resources will help students learn and create anytime, anywhere, and promote communication and interaction between teachers and students. (Nie Minghui, 2017) Secondly, the construction of the platform needs to strengthen the support for online assessment and feedback mechanisms. Through online testing and homework systems, teachers can understand students' learning progress and problems in a timely manner, and provide targeted guidance and suggestions. Lastly, the platform should focus on creative and practical teaching methods and content. Through experiential courses and project learning, students are encouraged to better understand and apply the knowledge and skills of humanities and arts majors.

4. Conclusion and Prospects

The digital transformation has expanded the learning resources and tools for humanities and arts majors. Through digital platforms, it enriches teaching materials and broadens the horizons and depth of the major. Whether it is classic literature or the latest research findings, the convenience brought by digital transformation enables students to learn and master important content in the field of humanities and arts more systematically. The application of modern digital technology has also enriched the teaching methods of humanities and arts majors. Cases show that interactive teaching between teachers and students using digital media and virtual reality can transform abstract artistic concepts into more intuitive and understandable new forms. This stimulates students' interest and participation in learning, injecting vitality and creativity into teaching. Digital transformation

will also bring new opportunities for employment and industrial development in humanities and arts majors. The advent of the digital media era has led to the vigorous development of the cultural and creative industries, where artists and creators use digital platforms and social media for creative promotion and value transformation. Against the backdrop of the new liberal arts construction era, digital transformation will also make humanities and arts education more in line with the needs of social development. The development of digital technology and artificial intelligence has further given birth to emerging artistic forms and professional posts, creating broader employment and development opportunities for students majoring in humanities and arts.

Today, with the help of digital technology applications, we can break through the limitations of traditional major teaching and create a more open and diverse learning environment, stimulating the creativity and imagination of teaching. At the same time, attention should also be paid that in the era of rapid updates of artificial intelligence tools, to maintain the love and reverence for traditional humanities and arts education, and to endow it with new value connotation through digital technology, will be a future challenge that educators must face. How to combine and stimulate digital technology with the essence of humanities and arts to explore and inherit the true value of humanities and arts education is still a topic worth continuous discussion.

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