

New Liberal Arts Construction Dynamics and Development Path Based on Citespace

Yaoyao Han^{1,2} and Jie Yang^{3(\boxtimes)}

¹ Department of Subject Service and Consultation, Jinan University Library, Guangzhou 510632, China hanyaoyao@jnu.edu.cn

 ² Intellectual Property Information Service Center, Jinan University, Guangzhou, China
³ Social Science Research Department, Jinan University, Guangzhou 510632, Guangdong, People's Republic of China tyangjie@jnu.edu.cn

Abstract. New liberal arts construction has gradually become a strategic choice for higher education to meet the challenges of the technological revolution and international competition. In this paper, the core collection of Web of Science and CNKI are used as data sources, and the literature related to new liberal arts construction at home and abroad is used as research objects. The Citespace knowledge mapping analysis tool is used to draw annual publication volume, publication institution, keyword clustering graph, and timeline graph for visual analysis, and the construction and influencing factors of the dynamic mechanism of new liberal arts construction are studied. The study proposes the dynamic mechanism and development path of the new liberal arts construction from multiple perspectives, including different disciplinary systems and new liberal arts curriculum and teaching materials system construction, and provides a reference for solving many theoretical and practical problems faced in the new liberal arts construction in China.

Keywords: new liberal arts construction \cdot Citespace \cdot Dynamic mechanism \cdot Development path

1 Introduction

The liberal arts play a pioneering role in the development of human civilization, and it is both a symbol of the university's humanistic heritage and a repository of profound national thought. On April 29, 2019, the Ministry of Education (MOE), together with other departments such as the Central Committee of Political Science and Law, implemented the "Four New" plans (New Engineering, New Medicine, New Agriculture and New Liberal Arts) through the implementation of the "Six Excellence and One Top" Plan 2.0, as required by the "Implementation Plan for Accelerating Education Modernization (2018–2022)" and then launch a "quality revolution" in the construction of liberal arts in universities. With the "Declaration on the Construction of New Liberal Arts" of the

Ministry of Education, China has started a new process of constructing new liberal arts [1]. To develop the new liberal arts, its development dynamics, driving mechanisms, and development paths must first be understood remains an urgent research issue in the education sector [2].

The development of new liberal arts has two goals: one is to develop traditional Chinese culture creatively and innovatively based on national circumstances [3]; the other is to face the world and carry out the major initiative and concept of a "community of shared future for mankind," to fully exploit its advantages in trans-regional or national cooperation, and to make the disciplinary system, academic system, and discourse system with these goals in mind. Philosophy and social sciences can achieve creative development and increase their global influence through the creation of new liberal arts. It is based on the in-depth analysis, summarization, and refinement of the established research findings in philosophy and social science, including the requirements for talent in the new era, as well as internal and external conditions for innovation and development of philosophy and social science. It also introduces cutting-edge research methods and theoretical systems, changes philosophy and social science's research thinking and vision, and promotes the advancement of society as a whole.

2 New Liberal Arts Construction Progress and Trends

2.1 Research Progress of New Liberal Arts Construction in China

To more accurately grasp the current situation and trend of research on the construction of new liberal arts in China, we searched the Chinese related literature published before December 2021 through China National Knowledge Infrastructure (CNKI), and retained 1133 papers, and use Citespace to analyze the distribution of papers by time, institution, disciplinary impact and research frontiers.

Figure 1 shows that domestic research related to the construction of liberal arts dates back to as early as 1979 and roughly presents three stages. The first stage is the initial stage (1979–2000). 1979–1995, the amount of research basically remained between 0 and 6 articles, and the annual output increased rapidly to 14 articles in 1996, which declined but remained stable since then. The second phase is the stable development phase (2001-2015). 2002 publication volume increased rapidly to 48 articles, and the trend fluctuated in the following years, reaching a peak of 55 in 2011 and 2012. The third stage (2016–2021) is the rapid development period. 2016 saw the growth of domestic research results in the field of liberal arts construction, after which the General Office of the Central Committee of the Communist Party of China and the General Office of the State Council jointly issued the "Guiding Opinions on Leading Education with Xi Jinping's Socialist Thought with Chinese Characteristics for a New Era" in 2018, which proposed to develop "new engineering, new medicine, new agriculture, and new liberal arts", and since then the research on liberal arts construction has seen an explosive growth. Marked by the "Six Excellence and One Top" Plan 2.0 Kickoff Conference held by the Ministry of Education in 2019, the construction of "New Liberal Arts" entered the practical stage from the conceptual stage, with 100 and 124 articles published in 2020 and 2021.

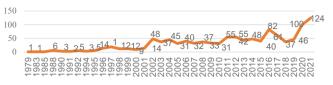


Fig. 1. Annual distribution and changing trend of domestic liberal arts construction research

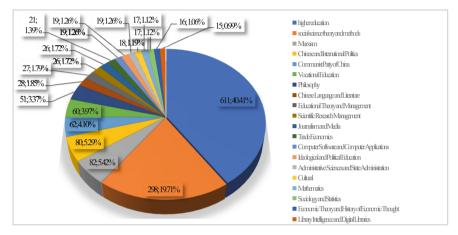


Fig. 2. Top 20 disciplines in China by volume of articles published in liberal arts construction

From the analysis of the subject categories of papers (Fig. 2), the research on liberal arts construction has obvious integration, interdisciplinarity and applicability. The study of liberal arts construction covers dozens of subject areas such as higher education, social science theory and methods, Marxism, Chinese and International Politics, Communist Party of China.

According to the institutions to which the papers belong, universities and organizations have published a number of papers, among which Renmin University of China, Chinese Academy of Social Sciences, Beijing Union University, Wuhan University, Heilongjiang University are the institutions with more papers in this field (Fig. 3).

2.2 Research Progress of New Liberal Arts Construction in Foreign Countries

This study searched the Web of Science core collection database for international papers on the construction of new liberal arts published before December 2021, with the combination of "TS = (liberal art OR liberal arts OR philosophy and social sciences) AND TS = (development OR construction)", and obtained 869 search results. Second, 683 papers were eventually collected for analysis after analyzing the titles, abstracts, and keywords of these materials, eliminating those not directly relevant to the development of new liberal arts, and screening and removing duplicates. By counting and analyzing the trends of international research postings on the construction of new liberal arts, the keywords of highly cited papers, and their references, this paper aims to reveal the research

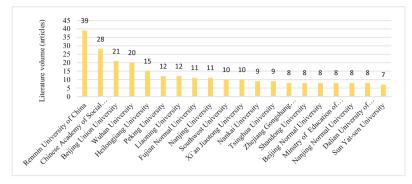


Fig. 3. The top 20 institutions in domestic liberal arts construction research publications

trends, frontier areas, knowledge base, and the evolution of international research on the construction of new liberal arts.

As shown in Fig. 4 international research related to the construction of liberal arts back to as early as 2000 and is divided into three phases overall. The first stage is the initial stage (2000–2007), and international research related to liberal arts construction shows a trend of steady growth, reaching a peak of 17 articles in 2006. The steady development stage is the second stage (2008–2017), and the number of articles in this stage has grown in an undulating pattern, reaching 47 articles in 2012. The third stage (2018–2021) is the rapid development stage, and is notable for the 8.49% and 8.93% of the total in 2017 and 2019, which may be related to the concept of "new liberal arts" proposed by Hiram College in 2017, and the enthusiasm of the academic community for the construction of new liberal arts has increased.

Keywords are the core connotation of literature research, and the larger the nodes in the common line mapping, the more research around them, representing the research hotspots in the field. By using keyword correlation, the association logic and development law between knowledge groups may be examined. According to Fig. 5, the core field is "philosophy" while the sub-core fields include "education," "philosophy of science," "knowledge," "experience," "construction," "higher education," "epistemology," and "ethics". The remaining keywords are random, although they are all connected in some way. This shows that the main hot issues of international liberal arts construction are: the discussion of philosophical principles, such as cognitive theory and methodology are mentioned many times, liberal arts education and discipline construction in higher education, and ethical issues in social science research.



Fig. 4. Annual distribution and trends of research related to international arts building



Fig. 5. International Liberal Arts Construction Research Keyword Mapping

| | Keywords | Year | Strength | Begin | End |
|-----|----------------------|------|----------|-------|------|
| rea | lism | 2000 | 3.45 | 2009 | 2010 |
| eth | ics | 2000 | 3.36 | 2011 | 2015 |
| per | ception | 2000 | 3.22 | 2015 | 2018 |
| sus | tainable development | 2000 | 3.22 | 2016 | 2018 |
| me | thodology | 2000 | 3.48 | 2018 | 2021 |

Fig. 6. Keywords with the strongest citation bursts of international liberal arts construction

With the algorithm proposed by Kleinberg in 2002, bursty results were increased or decreased by adjusting five detection parameters when using the Citespace software. According to Fig. 6, which shows the results of CiteSpace's burst detection function applied to international liberal arts construction keyword detection, the main areas of interest for international liberal arts construction research over time have been sustainability theories and philosophical methodology.

2.3 Evaluation of Research Progress in Liberal Arts Construction at Home and Abroad

Comparing relevant studies at home and abroad, we notice that foreign research perspectives are more diversity. Specifically, what domestic and foreign research themes on liberal arts construction have in common is that they both consider development issues from the perspectives of history and philosophy. Most of the relevant domestic research is up-to-date and policy-oriented, mainly on issues in the current context, such as the Three Represents, the Scientific Outlook on Development, and Xi Jinping's Socialist Thought with Chinese Characteristics for a New Era, etc. have become research hotspots one after another. As General Secretary Xi said, contemporary China is an era that needs theory and can produce theory, and an era that needs ideas and can certainly produce ideas. It is the call and requirement of the times to give play to the role of philosophy and social science, provide theoretical explanations for Chinese education, and cultivate high-quality innovative talents [4]. In addition to exploring current development issues in the world, such as sustainable development and methodology, foreign studies also focus on human beings and human life, such as ethical issues, human cognition, realism, and other research topics.

In terms of research progress, although the number of domestic related studies published annually has fluctuated, the overall trend is on the rise, especially after 2018, the research on liberal arts construction has received more and more attention from the domestic academic community. The overall publication trend of international liberal arts construction research is similar to that of domestic research, and the field of liberal arts construction is still a more popular research area. In addition, international research on the construction of the liberal arts started late compared to that of China, with relevant articles only beginning to appear in 2000. Although international articles on the subject appeared 21 years later than those in China, the subject of Western research on the construction of the liberal arts dates back to the ancient Greek period and aims to cultivate people with broad knowledge and elegance [5].

Compared with the construction of new liberal arts abroad, the construction of new liberal arts in China is unique in three aspects: First, in terms of policy formulation, endogenous and disciplinary self-awareness is the main path for the construction of new liberal arts abroad; the new liberal arts in China has a stronger top-down character, and this concept reflects a strong national consciousness and is a national project led by the government, which attaches great importance to overall planning and systematic support [6]. Second, while domestic policy has included these as well as insisting on the passing down of traditional Chinese great culture, foreign nations often pay more attention to interdisciplinarity, realism, and technology [7]. Finally, regarding policy orientation, the construction of new liberal arts in foreign countries has no uniform policy at the national level and has not integrated into the level of national development and the construction of the community of human destiny; while the construction of new liberal arts in China has a high guideline based on the consideration of a community of human destiny guides the policy development.

3 New Liberal Arts Building Dynamics Mechanism

The dynamic mechanism for the construction of the new liberal arts is exploring the social driving force for the liberal arts to gain continuity, gain and expansion from the social system and the objective laws of its generation and development. Specifically, through the leading role of core values, complemented by the methods and measures needed for social development, the pursuit of core values is motivated by the whole society. Such pursuit derived from society enables the construction of new liberal arts attractive and stimulate a strong impetus for education development within society. The establishment of moral education is the new liberal arts construction's top priority [8]. The New Liberal Arts focuses on ideology and culture, fostering education for the "Greatest of Nations" and using higher education as a venue [9].

The power mechanism of new liberal arts construction includes the education mechanism to enhance emotional identity, the integration mechanism to realize the quality of the path, and the synergistic mechanism to support the operation of all elements in the system.

The establishment of educational mechanisms needs ideological leadership, and core values as the source of motivation play this role in the process of educating people in universities. The educational mechanism should respond to the law of young people's growth and education teaching, make use of the unique educational resources of colleges

and universities, integrate the goal of moral education into the curriculum thinking and teaching reform [10], establish multiple values led by the value of integrity, and enhance the emotional identification of college students with the core values.

Behavior is the external manifestation of the subjective seen in the objective and is a comprehensive reflection of the state of core values. With the operation of the integration mechanism, the conversion of core values from theory to practice is realized, allowing college students to solidify the path to realize the cultivation of core values through explicit behaviors such as learning, practice and thinking.

Core values must continue to be developed and practiced, and effective motivation must be created through cooperative mechanisms. There are issues with core values teaching in certain colleges, including poor coordination, information silos, and failures in communication. The fundamental solution to these issues is to strengthen the synergistic mechanism, which can overcome the conundrum by bolstering system development, optimizing educational practices, judicious resource allocation, and other synergistic measures to ensure the smooth operation of the core values system.

4 New Liberal Arts Construction Development Optimization

Building a strong nation of higher education is inseparable from new liberal arts construction, as a system project, it is related to all aspects of higher education, therefore this paper tries to explore the development path of new liberal arts that is suitable for China's national conditions in the new era from the aspects of discipline system, curriculum system, and teaching material system.

4.1 The Path of Building New Liberal Arts Under Different Disciplinary Systems

In recent years, there is a trend of increasingly detailed division of disciplines in the cultivation process of doctoral and master's degree students as well as in the setting of undergraduate majors, the barriers within disciplines are also increasing. This makes the talents cultivated in the disciplines of literature, history, and philosophy suffer from narrow fields of specialization and single vision, producing the problem of having more than enough specialization but not enough knowledge.

Therefore, the construction and development of a new discipline of literature, history and philosophy under the concept of the new liberal arts needs to highlight four characteristics: emphasis on humanities, original texts, integration and innovation. As a part of general education, the comprehensive knowledge system of the disciplines of literature, history, and philosophy is a teaching that can provide all branches of knowledge, so that people can have a comprehensive and holistic understanding of the overall state of knowledge before learning professional knowledge [11, 12]. For this reason, it is necessary to cultivate the general education acquired through the study of basic literature, history, and philosophy disciplines. The sustainable development of literature, history, and philosophy disciplines in the context of the new liberal arts cannot be achieved without general education [13, 14], and the construction paths of different subject areas are as follows: Economic and Regulatory Law. Statistics show that the number of majors and students in Economics and Regulatory Law has the highest percentage and widest coverage among the new liberal arts, and it should become the main force in the construction of new liberal arts. Economics and Regulatory law is traditionally an applied liberal arts discipline, but the development of new technological revolutions and industrial changes such as big data and artificial intelligence have had a profound impact on the discipline. These modern information technologies are constantly reshaping economic society and the new form of higher education, promoting digital upgrading [15] and intelligent technologies in various fields of economy and society, causing radical changes in knowledge dissemination and acquisition, the relationship between teaching and learning, and thus hastening the change of economic management knowledge and skills. Integrating big data, artificial intelligence, and other information technologies into the field of economic and management law research, and realizing the change of knowledge architecture and ability cultivate of economic and management law discipline talents are the important contents of the new liberal arts construction.

Pedagogy Field. The integration of theories and practices in the construction of new liberal arts in pedagogy is the key link. The abstract and generalized nature of theories of education and teaching makes it difficult for them to engage in direct dialogue with the pluralistic and rich educational practice, resulting in misalignment and disconnection between pedagogical theories and educational practice; at the same time, the educational theories refined in the process of educational practices are difficult to enter into the existing educational system. To solve the confusion of educational theory and practice, pedagogy needs to be thoroughly reformed, to achieve comprehensive innovation in a research paradigm, educational thinking, and discourse system, and to realize the modern transformation of traditional educational philosophy. Specifically, reform can start from the paths of localization of western educational concepts, the orientation of educational research from abstract thinking and discourse to practice action.

Artistic field. Art is about the "human element" making it the most fundamental discipline in the humanities and in the liberal arts as a whole. The key point in the path of building new liberal art in the field of art is to break through the old framework of self-contained disciplines, where the old internal division of disciplines hindered the growth of "people" holistically and comprehensively. In the background of the new liberal arts construction, the art disciplines should reposition their values and contributions in the new liberal arts system, give play to the discipline's advantages and characteristics, and reshape the art discipline section of the new liberal arts construction.

4.2 Path to the Construction of New Liberal Arts Curriculum System and Teaching Materials System

Curriculum System Construction Pathway. In the background of the new liberal arts, the construction of the curriculum system advocates the integration of traditional literary courses and new technologies to achieve the development of students' comprehensive quality and ability [16]. The construction of new liberal arts is still inseparable from the important foundation of the curriculum. The foundation and subject status of the course in the construction of new liberal arts cannot be shaken, and the discipline transformation

and cultivation of new professional talents realized around the construction of curriculum is the key to the construction of new liberal arts. The central disciplinary knowledge system of the past new liberal arts application curriculum system, the construction, and development of the curriculum in the context of the new liberal arts construction must take the individual development of students and social development needs as the reform goal.

Teaching materials system construction Pathway. The development of new technologies, the emergence of new needs, and the needs for new national conditions make the construction of new liberal arts to be innovative, integrated, and adapted to national conditions. In the current environment, the new liberal arts put forward new challenges and requirements for the setting of teaching materials and teaching methods, and it is necessary to continuously optimize the teaching materials system and integrate the development goals of the new liberal arts into the construction of the teaching materials system, so that the teaching materials have the characteristics of practicality, applicability, and adequacy, and provide guarantee for the improvement of teaching level and the cultivation of comprehensive talents.

5 Conclusions and Insights

The concept of "liberal arts" has two fields of application. One is based on the concept of "science". In its conceptual sense, the liberal arts can be seen as a shorthand for philosophy and social sciences, which are the sum of the humanities and social sciences, as distinct from the natural sciences. Secondly, based on the field of "discipline". In this sense, the humanities can be abbreviated as the liberal arts, with the traditional disciplines of literature, history, philosophy, and linguistics in universities, and the emerging disciplines of art, journalism, and communication in the modern scientific system. In the new liberal arts, the meaning of "new" not only refers to the old and the new, but also to the innovative. Since the beginning of the construction of the new liberal arts, the construction of this conceptual system and its practical progress has been at an important stage of theoretical generation and model exploration.

Driven by the major initiative and concept of "Community of Human Destiny", this paper argues that to develop the new liberal arts, we must first understand the internal and external factors that drive its development, whether the structure of the new liberal arts itself is harmonious and the impact of some external factors or policy plans on it. Only by correctly addressing the issues of cognitive foundations and motivational mechanisms can we take fewer detours in our subsequent practice. In addition, this paper proposes the path of new liberal arts construction and the policy guarantee mechanism of the new liberal arts construction path for different discipline systems, new liberal arts curriculum and teaching materials systems. On this basis, the paper discusses how to realize the development of classification and characteristics in universities, how to classify and cultivate talents in liberal arts, and how to strengthen the top-level design ideas of the liberal arts education system [17]. The findings of this paper can provide a reference for the implementation of the "Double Ten Thousand Plan", and can provide countermeasures for the establishment of a dynamic control mechanism for the cultivation of liberal arts talents and the structure of disciplines and specialties, to ultimately build a

new high ground for the cultivation of talents in philosophy and social sciences. This paper explores the laws of the development of liberal arts construction from a practical perspective, taking history as a guide, to explore, discover and build a development path for the construction of new liberal arts in China.

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