

Deepening the Integration of Big Data and Ideological and Political Education

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Abstract: Question consciousness and practice orientation are the fundamental focus of the development and innovation of ideological and political education. We should have an insight into the penetration of big data into the development and innovation of ideological and political education, and reflect on the current situation of the response of ideological and political education to big data in the development process. Especially, in the rumination of the failed experience, we are enlightened to take the basic theory of Marxism as the guide, take the basic laws, fundamental principles and essence of ideological and political education as the leading factor, and take the technical advantages, carrier advantages and thinking advantages of big data as the support, so as to deeply study the basic point, direction and rationale of the integration of big data and ideological and political education, and deepen the integration of big data and ideological and political education. This will help to further enhance the sense of the times, appeal and timeliness of ideological and political education, and contribute to the better realization of the optimization and upgrading of the national governance system and implementation of the fundamental task of cultivating people by virtue.

Key words: big data; Ideological and political education; integration

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INTRODUCTION

Big data "is a kind of values and methodology", and "it starts a great change in behavior and thinking in an era. By analyzing massive data in an unprecedented way, we can obtain products and services with great value or profound insights"¹. This brings unprecedented opportunities and challenges to the development of ideological and political education. On the one hand, the intervention based on big data has realized the multi-dimensional changes in the research of ideological and political education, such as full sample closeness, correlation modeling, and quantifiable research, and effectively realized the accuracy, effectiveness and sense of the times of ideological and political education. On the other hand, facing the comprehensive intervention of big

data, ideological and political education is also faced with many challenges, such as vague orientation of question consciousness, fragmentation of knowledge dissemination and data ethics, etc. Therefore, an all-round, multi-level and three-dimensional analysis of the realistic situation, deep-seated reasons, law compliance and practical dimensions of the integration of ideological and political education and big data will help us to seek advantages and avoid disadvantages, foster strengths and circumvent weaknesses, and deepen their integration.

ANALYSIS OF THE CURRENT SITUATION OF THE INTEGRATION OF BIG DATA AND IDEOLOGICAL AND POLITICAL EDUCATION

Undoubtedly, the diversity, integrity, relevance and fuzziness of big data, as well as the quantitative research methods, have inspired new ideas for the theoretical and practical research of ideological and political education, and the thinking and exploration of the integration of big data and ideological and political education are in full swing. Through combing the previous literature, we can see that the academic research on the integration of big data and ideological and political education mainly spreads in two directions:

One is to follow the trend. That is to say, it is a process of optimizing and upgrading the research paradigm, thinking mode, working method, function display, value mining and other dimensions of ideological and political education by taking advantage of the strengths of big data such as large amount, diversification, predictability, precision and intelligence, so as to effectively strengthen the multi-dimensional effectiveness of political orientation, educational guidance, aesthetic edification, cultural communication and social governance of ideological and political education. From the perspective of functionalism: Fu Anling thinks, "Big data is conducive to improving the timeliness of ideological and political education more effectively, and its specific path is to promote the improvement of subject data intelligence, guide the deepening of subject virtual communication and innovate the innovation ability of subject data"². Song Linze pointed out that "the integration of big data and ideological and political education has brought about the renewal of thinking mode, research content and research path of ideological and political education. Its practice path attaches more importance to the whole sample, the correlation, the prediction function, and the "bottom-up" knowledge consciousness"³. From the perspective of holism, Liu Hongda and Pan Kaiyan think that to conduct the research on the integration of big data and ideological and political education, "we should establish a correct view of big data, integrate the logic and generation rules of big data into the process of ideological and political education, and do a good job in the orientation transformation from the network era to the big data era, the perspective transformation from the technical advantages of big data to the functional

advantages of big data in ideological and political education, and the three-dimensional transformation from theoretical integration to practical integration"⁴. Tan Jing believes that "the integration of big data and ideological and political education should comprehensively consider the horizontal and vertical multidimensional elements of their integration, so as to carry out collaborative innovation from the perspective of holism"⁵. Liu Junkai pointed out, "The deep integration of ideological and political education in colleges and universities with big data points to the comprehensive and systematic role of big data in ideological and political education in colleges and universities, so that the research paradigm of ideological and political education gradually turns to a new stage such as scientific demonstration, data modeling and quantitative research"⁶. From the perspective of educational innovation: Wei Youxing thinks, "The orientation of the integration of big data and ideological and political education lies in using big data to fully explore the intrinsic nature, operating rules and value exertion of ideological and political education, and to promote its research focus to change to systematic, disciplinary development and philosophical consciousness research"⁷. Liu Chunbo believes that "the integration of big data and ideological and political education should understand big data and ideological and political education itself as a brand-new educational model devoted itself to its effective integration with the original model, so as to promote the innovation of ideological and political education model in the era of big data"⁸. Wang Haiwen thinks, "To promote the integration of big data and ideological and political education, we should devote ourselves to using big data to mine the multidimensional value of ideological and political education information, detect the ideological trends of subjects, and predict the behavioral trends of subjects"⁹. Zhao Jun believes that "the integration and innovation of ideological and political education theory courses in colleges and universities and big data should pay special attention to the theoretical growth point and operational mechanism of their integration"¹⁰. Second, reverse containment, that is, to trace the possible deviation of big data in the process of intervention in ideological and political education

research, and to prevent it early. Huang Xinrong put forward that "in the process of using big data to carry out ideological and political education, attention should be paid to protecting the subject's right to privacy"¹¹. Cui Jianxi thinks, "It is necessary to rationally examine the problem of big data fever from the perspective of ideological and political education and reduce the risk of data abuse in the application process"¹². Song Zelin pointed out that "in the process of the integration of ideological and political education and big data, we should be alert to the traps of 'dataism', 'technicalism' and 'data ethics'"¹³. Luo Hongjie pointed out, "In analyzing the integration of big data and ideological and political education, we should examine the theoretical relationship between "changed" and "unchanged", "cold" and "warm", "benefits" and "disadvantages" of the modernization of ideological and political education driven by big data. In his opinion, we should not only fully grasp the opportunities brought by big data to ideological and political education, but should not over-emphasize the resource attributes of big data while ignoring the essence and principles of ideological and political education, nor over-rely on the technological empowerment of big data while ignoring the humanistic care of ideological and political education"¹⁴. Wang Shoulin pointed out that "the integration of big data and ideological and political education should prevent the emergence of problems such as weak technical foundation, shortage of talents and digital barriers"¹⁵.

Obviously, at present, the academic research on the integration of big data and ideological and political education has begun to take shape, which is manifested in the more issues involved and the further expansion of research depth. In the process of research, the researchers not only pay attention to the changes of explicit situations such as presentation mode, communication carrier and channel of ideological and political education content during the integration of big data and ideological and political education, but also keep an eye on and dig out the intrinsic problems of big data in the nature excavation, law exploration, paradigm shift, thinking innovation and development prediction of ideological and political education in a systematic manner, which strengthens the

scientificity and feasibility of the integration of big data and ideological and political education. The fly in the ointment is that most of the current academic discussions on the integration of big data and ideological and political education are to physically bond big data and ideological and political education to achieve unity in form. However, there is little discussion on which is the leading problem in the process of integration, the reasons and laws of integration, and the construction of normalization mode after integration. Obviously, the concentrated thinking on this part of the problem is an important breakthrough point for us to devote ourselves to the deep integration of big data and ideological and political education.

REASONS FOR THE INTEGRATION OF BIG DATA AND IDEOLOGICAL AND POLITICAL EDUCATION

The research trend of big data in ideological and political education is the inevitable trend of social orientation under digit drive, and the change of the main body's way of thinking and behavior, which is also the inherent demand of ideological and political education for reform and innovation. Big data, as a symbol of the times integrating technical functions, value mining and thinking transformation, provides practical basis, intellectual support and development space for its integration and development with ideological and political education.

Realistic Needs: the Basic Reasons for the Integration of Ideological and Political Education and Big Data

Marx said in the *Outline of Feuerbach*, "Whether people's thinking has objective truth is not a theoretical problem, but a practical problem. People should prove the truth of their thinking in practice, that is, the reality and strength of their thinking, and the this-sidedness of their thinking. The debate about whether thinking away from practice is realistic is a purely empirical philosophical question"¹⁶. This argument conveys the following two important messages: First, knowledge comes from practice, and practice is the only criterion for testing truth. Second, cognition must be deeply practiced, tested by practice, and effectively responded to the

needs of reality, so as to gain the power to gain truth. As an important cognitive activity in the ideological dimension, ideological and political education has a strong historical traction and changes in the times. Only by actively paying attention to practice and actively integrating into practice can it gain more lasting vitality.

First, ideological and political education needs to respond to the realistic call of top-level design. With the increasingly comprehensive and profound impact of big data on the public opinion orientation and educational ecology of the whole society, the links between ideological and political education and big data are getting closer. To better balance the gap between the new practice mode and the old thinking mode and behavior mode in the field of ideological and political education, the Party and the state attach great importance to the research on the integration of big data and ideological and political education. "Ideological and political work in colleges and universities" should be combined with new media and new technologies to make the work alive, promote the high integration of traditional advantages of ideological and political work with information technology, and enhance the sense of the times and attractiveness¹⁷. "We should grasp the historical opportunity of the information revolution, make good use of big data, enhance the ability to use data to advance various tasks, and constantly improve the ability to grasp the development law of big data, so that big data can play a greater role in various tasks¹⁸. Obviously, the Party and the state have pointed out the direction for the integration and development of ideological and political education and big data from a macro perspective. In the process of integration, we should not only grasp the general trend but also should be prudent. Starting from the concrete and changing reality, we should deeply penetrate the traditional advantages of ideological and political education and the multidimensional advantages of big data practice including thinking, technology and mode, so as to grasp the laws of ideological and political education more effectively, predict its development trend more effectively, and take targeted and personalized countermeasures to enhance the effectiveness of ideological and political education.

Second, ideological and political education needs

to respond to the realistic situation of its own development bottleneck. Looking back at the nearly 40-year history of ideological and political education, there are many sad faces in its regular mining, innovative research methods, unbalanced demand and supply, etc. First of all, from the perspective of law, the laws of ideological and political education have different dimensions, and the laws of different dimensions have different contents, and different contents show different ways of understanding, such as "the law of the emergence and development of ideological and political education, the law of the formation and development of social ideology, the law of the formation and development of individual ideology and morality, the law of the process operation of the ideological and political education, and the law of effectively carrying out ideological and political education." Its core point is to accurately position the future development trend based on a comprehensive and profound grasp of the current situation. However, the reason for the fuzziness in the study of the law of ideological and political education lies in the lack of discussion on the specific content of the law and the corresponding research methods. Secondly, from the perspective of research methods, ideological and political education has long used empirical and qualitative research methods, and its research results are mostly influenced by previous experience, qualitative prediction and small sample sampling, which leads to the lack of scientificity and timeliness to a certain extent. Finally, from the perspective of the imbalance between the supply and demand of ideological and political education, timely and comprehensive control of the subject's thinking and behavior is the key to solve the current supply contradiction of ideological and political education. However, the traditional ideological and political education only relies on the small-scale and short-time record and investigation of the subject's behavior, which makes it difficult to discover the normalized and inherent law of the subject's behavior, obtain scientific and effective conclusions, and then reconcile the contradiction between demand and supply. As an important proposition of the times, big data has a larger capacity of data holding, accurate data analysis and

intelligent data prediction, which provides an important cut for solving the obstacles in the current development of ideological and political education. "The social science community has gradually formed a new discipline, namely, computational social science, to make full use of the digital records of social phenomena or behaviors, to discover social laws by means of data analysis, simulation calculation and experimental research, and to form a variety of ways to produce and test causal knowledge by combining big data methods with statistical methods, small data analysis, experimental research and simulation methods¹⁹. Data is closely related to human beings, and it is an important scientific parameter to describe things and their relationships. The revolution of big data technology just provides the latest scientific methods and technical means for studying irrational phenomena such as people's thoughts, behaviors, preferences and emotions, thus bringing revolutionary influence to the research and management of ideological and political education of college students²⁰. Ideological and political education needs to catch the fast train of social practice mode change in time, and should iterative causal thinking with relevance and diversified thinking, iterative qualitative research with quantitative research, iterative sampling data investigation with full sample data, and long-term and comprehensive tracking and recording of the subject's thought and behavior track based on data, so as to excavate the hidden stable laws and make scientific predictions for the future. According to the data and information, we should integrate and innovate the research methods, educational models, working methods and content expression of ideological and political education in a timely and targeted manner, and actively promote the integration of ideological and political education and big data, so as to strengthen the scientific and practical results of ideological and political education.

Inner Coherence: the Fundamental Reason for the Integration of Ideological and Political Education and Big Data

First, big data and ideological and political education have the same research object. Thought

and action are the common research objects of big data and ideological and political education. In essence, both big data and ideological and political education explore the deep and normal laws hidden behind the complex phenomena of thoughts and behaviors by investigating and tracking the main body's thoughts and behaviors, so as to scientifically predict the development trend of things and meet the needs of the main body in a targeted and timely manner. The difference is that the ideological and political education adopts small sample sampling survey, causal and stereotyped research methods, which has certain limitations on the breadth of information and the scientific nature of the conclusions. However, big data adopts full sample survey method and quantitative research methods of relevance and fuzziness. By means of artificial intelligence, digital analysis and mechanical analysis, we can dynamically track and store a large amount of structured and unstructured data left by the subject in cyberspace, and further refine and obtain the effective information in it by means of integration, comparison, calculation and visual presentation, so as to dig out the value and law hidden behind it, and further expand the breadth of information referenced and the accuracy of research results. This makes the integration of big data and ideological and political education a natural possibility. Second, big data and ideological and political education have the same direction of behavior. Predictability is the common behavior direction of big data and ideological and political education, which is characterized by exploring the law of development of things. From a practical point of view, effective prediction behavior is of great significance to the development of things. On the one hand, it can provide a basis for decision-making programs. On the other hand, it can actively prevent and strive for the initiative in the face of emergencies. From the perspective of theoretical support, materialist dialectics enlightens us that social existence determines social consciousness which has a reaction to social existence, and social consciousness itself has the principle of relative independence. This provides a feasible theoretical basis for us to find the law of the development and change of people's thoughts and predict the development and change of people's thoughts.

"Traditional ideological and political education is generally based on small sample size and causal thinking mode, and uses investigation and chart analysis to predict its development trend and direction²¹. However, due to subjective factors, the results are not scientific enough. While big data is characterized by the combination of large sample data and relevant thinking, which can dig and visualize the depth of complicated data information, which ensures the accuracy of prediction results to the maximum extent. Therefore, it can effectively make up for the shortcomings of the traditional predicting methods of ideological and political education, which makes its integration with ideological and political education have natural possibilities. Third, big data and ideological and political education can achieve interoperability. On the one hand, the datamation of ideology provides the possibility for the integration of big data and ideological and political education. The core of big data lies in accurate prediction, so as to eliminate the uncertainty in the development process. "In order to strengthen the timeliness and recognition of ideological and political education, data thinking has been involved in its theoretical and practical dimensions, showing the data characteristics of educational content²². Big data thinking expands the research mode of ideological and political education, "breaking the traditional qualitative research method of ideological and political education, and innovating the new method of "quantitative" research of ideological and political education by relying on the realistic basis of data mining and data analysis²³. On the other hand, the ideological expression of data further echoes the possibility of the integration of big data and ideological and political education. In the process of realistic research, "the subject can accurately predict the development trend of ideological and political education according to the data tracking and expression of individualized thinking and dynamic thinking of the educational object²⁴. According to the sound of data, through the information acquisition and value mining of data presentation, the development plan of ideological and political education can be regulated and controlled in a targeted manner, and the needs of the subject can be met in time, so as to enhance the

effectiveness of ideological and political education²⁵. In a word, big data provides technical support and space resources for ideological and political education, while ideological and political education provides ideological guidance and theoretical support for big data. It is mainly characterized by the data expression of educational content and the quantifiable research methods, the datamation of ideology, and the ideological turn of data expression, which is mainly characterized by the accuracy of prediction results driven by data tracking and the timeliness of ideological and political education driven by data analysis. This makes it possible to realize the integration of big data and ideological and political education.

Practical Utility: an Important Reason for the Integration of Big Data and Ideological and Political Education

Usefulness is the benefit drive to promote the development of an event. As Marx said, without the discussion of interests, all practices will be eclipsed. Therefore, the integration practice of big data and ideological and political education cannot escape the thinking about utility. From the micro dimension, the integration of big data and ideological and political education is conducive to promoting the innovative development of ideological and political education. Theoretically speaking, the disciplinary basis of ideological and political education research includes the essence of ideological and political education, research paradigm, overall concept, overall layout, system guarantee and talent reserve, etc. Its various elements are independent and influence each other. With the introduction of big data technology, the wide application of its diverse, holistic, relevant and fuzzy thinking modes and the advancement of its quantitative research methods are conducive to accurately controlling the characteristics and development logic of each part, putting aside the influence of scattered details and paying attention to the overall situation, and realizing collaborative optimization to promote the innovative development of ideological and political education. From the middle dimension, the integration of big data and ideological and political education is conducive to promoting the optimization and

upgrading of national governance capacity. As an important part of national governance capacity, ideological and political education promotes the optimization and upgrading of national governance capacity, and the intervention of big data technology strengthens this function to a great extent. First, with the help of the development of big data technology, the cross-temporal and interdisciplinary development of ideological and political education theory can be promoted, so as to help ideological and political education absorb excellent research methods from different disciplines and different cultural backgrounds, and strengthen the thoroughness of the theory to effectively improve the interpretation of the achievements of national governance by ideological and political education. Second, the introduction of big data technology refines and deepens the real-time understanding of the subject's thinking and behavior, and realizes the targeted satisfaction of their needs and the timely correction of their erroneous tendencies. Therefore, it can strengthen the value, belief and behavior leading force of the subject of national governance more pertinently. Third, the integration of big data technology will help to improve the influence on national governance practice in theory, system and ethics. From a macro perspective, the integration of big data and ideological and political education is conducive to more effective implementation of the great task of building a moral education. Admittedly, the key to maximize the effectiveness of moral education is to fully and deeply control the information of the subject's thoughts and behaviors. The introduction and application of big data has helped this link to the greatest extent. With the arrival of the era of big data, we will no longer replace the whole with parts, and we will no longer generalize the results obtained by means of average, but follow and mine the information of the subject's thoughts and behaviors with comprehensive, complete and dynamic thinking. With the popularity of smart phones, the formation of Internet and Internet of Things, and the realization of cloud technologies such as cloud storage and cloud computing, many technical problems in data collection, storage and processing have been solved. We can mine the characteristics of the subject's

thinking and behavior, discover the rules, reshape the value and reveal the essence through numerous data. Grasping the subject's thinking and behavior dynamics in real time and accurately provides scientific and effective support for the realization of the great task of fostering virtue through education.

PRESENTATION OF THE LAW OF THE INTEGRATION OF BIG DATA AND IDEOLOGICAL AND POLITICAL EDUCATION.

On the surface, contingency is at work, and this contingency is always dominated by internal hidden laws, but the problem is only to find these laws²⁶. Laws are the essential and inevitable connection between things. Grasping the law of the integration of big data and ideological and political education in a timely and accurate manner is conducive to making our work more directional, effective and conscious.

The Integration of Big Data and Ideological and Political Education Follows the Law of Interchange of Quality and Quantity

The law of interchange of quality and quantity is the basic law of materialist dialectics, which is universal and also applicable to the process of integration of big data and ideological and political education. In the process of integration of big data and ideological and political education, the element of "quantity" points to the data literacy, big data thinking, research methods and values of the subject, and the content presentation mode, carrier mode and dissemination mode of ideological and political education. It is the spatial arrangement and combination of the scale, degree, speed and its constituent elements of big data and ideological and political education, the increase and decrease in the number of things and their characteristics, and a continuous and insignificant change. In the process of the integration of big data and ideological and political education, the "qualitative" elements point to the above-mentioned quantitative elements, and the optimized combination of wholeness leads to the transformation of research paradigm of big data and ideological and political education as a unified whole. The inherent stipulation that the ideological and political education of "qualitative" big data is

different from other things is the change of the fundamental nature of things, the interruption of the gradual process, and the sudden change from one qualitative form to another. Under the impetus of internal contradictions of things, the accumulation of quantity to a certain extent will lead to qualitative changes, and new qualitative changes will generate new quantitative changes, thus promoting the development of things to infinity. In the process of concrete integration of big data and ideological and political education, we should first actively pay attention to the accumulation of quantity. First of all, from a static point of view, we should actively improve the subject's data literacy, dig deep into the thinking characteristics, practice characteristics and value implication of big data, and comprehensively analyze the multiple existences of the inner essence, practice object, goal orientation, law implication and principle compliance of ideological and political education in terms of existence scope, grade degree, composition mode, structure distribution and operation mechanism, so as to prepare for the integration of big data and ideological and political education. Second, from a dynamic point of view, it is necessary to dynamically track the details of each element, actively protect the favorable elements and development trends, and correct the unfavorable elements and development trends in time. We should grasp the critical point of integration and actively promote the leap. First, we must grasp the balance between the content of technical elements and cultural elements, that is, the degree of penetration of big data into ideological and political education. Everything has its inherent stipulation. Going too far is as bad as not going far enough. Appropriate allocation of contents is conducive to improving the acceptance of ideological and political education. Excessive technical participation will dismember the systematicness and heaviness of contents of ideological and political education, while insufficient technical participation is difficult to realize personalized understanding of the audience and achieve targeted satisfaction. Chapter 12 of *Lao Zi* said: "The five colors blind the eyes of man; The five musical notes deafen the ears of man; The five flavors dull the taste of man; Horse-racing, hunting and chasing

madden the minds of man; Rare, valuable goods keep their owners awake at night." It clearly warns us that excessive acquisition will lead to serious consequences, and to a certain extent, it shows that excessive technical participation will be counterproductive. Therefore, in the process of integration, we should strictly grasp the degree and mode of penetration of big data technology into ideological and political education, leave quantifiable items for big data to achieve accuracy, and leave the insights of truth, goodness and beauty in terms of thinking, value and culture for the subjects to conquer and inherit, so as to ensure the balance of integration. Second, we should grasp the "balance point" of the integration of big data and ideological and political education in terms of timeliness, degree and efficiency, adhere to the dynamic and three-dimensional unity of time and validity in the process of integrating big data with ideological and political education. To grasp "timeliness" well, it is necessary to solve space-time dimension problems such as when and where technology is involved; to grasp "degree" is to solve the problem of the proportion and depth of technology integration; to grasp "efficiency" is to grasp the feasibility and acceptance of integration. Third, we should grasp the legal bottom line and moral high line of the integration of big data and ideological and political education to ensure the scientific, rational and safe integration. In a word, the integration of big data and ideological and political education can only achieve a qualitative and holistic transformation by stepping through the intermediary category of "degree" rationally and scientifically.

The Integration of Big Data and Ideological and Political Education Follows the Law of Overall Optimization

Law of overall optimization: "It is the extension and development of self-organization emergence law, the emergence optimization at each level, the overall performance of difference coordination, the overall attribute of structure and function, and the result of level transformation²⁷. The process of integration of big data and ideological and political education is a process of collision and advancement of big data system and ideological and political

education system as a whole, in which the important link point is people on network. In the specific integration process, it points to the subject system represented by subject literacy, subject scale and subject composition, the thinking system represented by cognitive methods, research methods and moral concepts, the content system represented by the essence, objectives and tasks, principle compliance, rule mining and value orientation of ideological and political education, and the practice system represented by the positioning, mode and promotion path of the integration of big data and ideological and political education. The guarantee system represented by legal regulation, institutional norms and technical ethics, the technical system represented by full sample data, correlation, quantitative research, predictability, precision and intelligence, and the environmental system represented by timely variability, multi-point connectivity and virtual-real connection are the processes of mutual contact and interaction. Among them, each small system influences and configures each other in the process of integration, and finally frames the development direction and development form of the integration of big data and ideological and political education systems, showing the law of overall optimization. In the process of practice, the law of hierarchical transformation and the law of difference synergy are differentiated, in which the former is the foundation of the law of overall optimization, and the latter is the key of the law of overall optimization. The first is the law of hierarchical transformation. "Structural hierarchy is the motivation of hierarchy transformation law. The overall hierarchy is the stage of hierarchy transformation, and the existence, occurrence and development of the system all go through the intermediary hierarchy"²⁸. The basis for the formation and development of social organism lies in the intrinsic relevance and overall generativeness of each part, which is applicable to the characteristics of the relevance development of each element in the process of integration of big data and ideological and political education. From the macro-level of development, the integration of big data and ideological and political education is characterized by the fact that the elements such as

technology, humanities, numbers and thoughts are interacting with each other, while the development direction is constantly converging and the development level is gradually synchronized. From the micro-practical level, the hierarchical transformation law of the integration of big data and ideological and political education presents a development model of "from beginning to end". In *A Brief Introduction to Arts and Literature*, it is said: "with regard to the introduction, the follow-up, the transition and the conclusion, the introduction introduces the following, including the conclusion: the conclusion is the sum-up including the introduction; and the transition and the follow-up used in the middle also involve the conclusion"²⁹. Technology orientation is "the introduction"; humanistic feelings are "the follow up"; digital presentation is "the transition"; ideological sublimation is "the conclusion"; and the final research paradigm is "presentation". The initial big data technology orientation promotes the final transformation of the research paradigm, and the final formation of the research paradigm cannot be separated from the help of big data technology. Namely, the beginning echoes with the end. Humanistic feelings and digital expression should not only take into account the practice and value characteristics of big data technology, but also consider the application of the thinking mode of big data ideological and political education and the creation of the final research paradigm. However, the generation of thinking mode coordinates big data technology, humanistic feelings and digital expression in thinking practice. Technology traction of integration of generative Ness big data ideological and political education, support of humanistic feelings, digital expression and thinking mode of big data ideological and political education are internalized in the integration process, and manifested in the behavior practice of big data ideological and political education research paradigm, showing the process of dynamic mutual construction from inside to outside. Second, the law of difference synergy. That is, the integration of big data and ideological and political education is an organic infiltration based on maintaining each other's superiority and uniqueness. It is a state of mutual integration, rather than one party devouring

the other.

EXPLORATION OF THE PATH OF THE INTEGRATION OF BIG DATA AND IDEOLOGICAL AND POLITICAL EDUCATION

In the new era, to promote the innovative development of ideological and political education, it is necessary to actively promote the integration of big data and ideological and political education. The deep development is characterized by the appealing power of its content and the normalization of its integration mode. Therefore, we should not only depend on the development law and value appeal of ideological and political education, but also systematically consider the multidimensional elements such as thinking mode and research methods of big data technology. We should grasp the opportunity of integration, handle the multidimensional contradictions in the process of integration, and improve the accuracy and effectiveness of integration.

Adhering to the Guidance of Marxist Theory to Ensure the Accuracy of the Direction of Integration

Marxism is an important ideological component of China, an internal basis for the operation of China's political life, and an important symbol for judging the value of social life. Actively consolidating the guiding position of Marxist theory and its achievements in China is an important guarantee to ensure the correct direction, goal, method and mode of the integration of big data and ideological and political education. We should ensure that the essence, laws, principles and objectives of ideological and political education always revolve around the basic spirit, values and guidelines of Marxism, and will not be corroded by technical factors. In the concrete practice of integration of big data and ideological and political education, a series of problems, such as when and where the components of big data technology should be integrated and the integration degree of big data technology, should be under the ideological guidance of the basic stand, viewpoint and method of Marxism. We should adhere to holistic care and dialectical thinking to deepen the integration of big

data and ideological and political education.

Adhering to the Principles of "Timeliness", "Efficiency" and "Degree" to Ensure the Scientific Nature of Integration.

In essence, ideological and political education is a discipline based on the national conditions and the times, which can grasp and predict the public opinion dynamics of the whole country and society by excavating the main body's thinking and behavior information, and then realize ideological guidance and political regulation of the public opinion dynamics, as well as moral education for individuals. The value of its integration with big data lies in the comprehensive and accurate acquisition and control of the subject's thinking and behavior information with the help of big data's vast data storage, analysis and prediction capabilities, so as to more accurately excavate the development law of ideological and political education, predict its development trend and help realize its efficacy. This is of great significance to both the cultivation of individual talents and the governance of national society. Therefore, it is of great significance to effectively grasp the timeliness of their integration. "Timeliness" refers to the time and position of integration, and it solves the problem of time and space dimension of integration. "The integration of big data and ideological and political education is a process of technological empowerment in reality, but it is not a pervasive coverage. "Big data technology, as an empirical research method, is better at mining pattern information, but there are some defects in understanding people's deep consciousness. Therefore, according to the big data theory and the analysis of ideological and political education law level, big data technology can be involved in the exploration of social ideology evolution law, the research and judgment of social public opinion development trends, the evaluation of ideological and political education effect, and the mining of subjective thinking and behavior information law³⁰. The thinking and practice of deep conscious problems should be left to the balance of other multi-dimensional forces. "Efficiency" refers to the degree and state of integration. The integration of big data and ideological and political education is a kind of

normalized and integrated fusion embedding the technical advantages of big data into the ideological and political education function and taking big data as the main practical means of ideological and political education, rather than a local infiltration at one time and in one field. "Degree" is a scale, which refers to the problem of the way of integration. With regard to the integration of big data and ideological and political education, we should not only actively prepare for the accumulation of quantity, improve the synchronic penetration of various elements between them, and promote the qualitative leap of integration, but also guard against the dismemberment of the theoretical system by technical factors, and be wary of the risks of numerology. The integration principle of "timeliness, efficiency and degree" runs through the whole process of their integration. To treat the integration of big data and ideological and political education from the perspective of development, we should always take the regular development, goal orientation and value appeal of ideological and political education as the foundation, and adjust the timing, degree and method of big data integration according to the different situations and environments faced by ideological and political education, so as to promote the scientific integration of big data and ideological and political education.

Dealing with the Contradiction between the Talent Development Task of Ideological and Political Education and the Numerous Clutters of Data and Information, the Data Ethical Traps and the Information Cocoon to Realize the Normalization of Integration

Fostering virtue through education is the essential demand of ideological and political education. Therefore, in the process of practice, ideological and political education will inevitably use the data acquisition and analysis function of big data technology to realize the omnibearing, multi-angle and dynamic grasp of the main body's thoughts and behavior information, dig out the hidden laws behind it, adjust the strategies in real time, so as to meet the needs of the main body, and better implement the great task of moral cultivation. However, in the concrete practice of the introduction of big data technology, there are

disadvantages such as data information surplus, data ethical traps and information cocoon. This objectively causes the contradiction between the talent development of ideological and political education and data and information surplus, data ethical trap and information cocoon. Generally speaking, in the concrete integration practice, we should not only respect the development law, goal orientation and value appeal of ideological and political education, but also pay attention to the technical logic, ethics and characteristics of big data technology, overcome the difficulties and contradictions in the integration process, and realize the normalization of integration. Specifically, first, facing the contradiction between the talent development task of ideological and political education and the massive and messy data information in cyberspace, we should actively improve the data processing ability of the subject and construct intelligent database and big data analysis platform to selectively obtain effective information and eliminate the interference of useless information by classifying, comparing, calculating and visually presenting the messy information. Second, in the face of the contradiction between the talent development task of ideological and political education and the data ethical traps, the information of any cyberspace left by the subject in the era of big data will be permanently preserved. However, in the process of cross-reorganization and association analysis of data by data mining technology, it will infringe on personal privacy. On the one hand, we should strengthen the subject's data literacy, restrain the infringement of privacy from the moral level, and be conscious of privacy protection; on the other hand, we should formulate systematic and perfect laws and regulations to rigidly regulate the infringement of information. Thirdly, facing the contradiction between the talent development task of ideological and political education and the information cocoon. The so-called information cocoon refers to the phenomenon that the subject is submerged in an overloaded personalized information torrent, which leads to the closure of information space and the obstruction of information dissemination. This phenomenon has obvious characteristics of closed information space, catering to information

dissemination, and single and narrow information content, which has great influence on the healthy growth of subjects and the authority of education.

In the face of this phenomenon, we should guide the subjects to actively exert subjective initiative, actively think and act actively to get rid of the infringement of data supremacy and data-only doctrine. In short, to deepen the integration of big data and ideological and political education, we should guard against the infringement of data-only doctrine. Where and how to use big data technology and the degree of application of big data technology need to be carefully considered. We should rely on big data technology to represent the external form of the inner essence of ideological and political education, enrich the research foundation of the law of ideological and political education, and mark a new starting point for the value appeal of ideological and political education, instead of being countered by data technology.

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