On Improving Data Literacy of Ideological and Political Workers in Big Data Era

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Abstract

Starting with the characteristics of big data and the challenges to ideological and political work, this paper shows that the challenges to ideological and political work are mainly to the subject and object of ideological and political work, and the improvement of data literacy of ideological and political workers as the subject of ideological and political work can have positive significance in the cultivation of qualified political, social and moral people. Therefore, the improvement of data literacy of ideological and political workers should be based on the establishment of scientific thinking, innovation of ideological and political work methods, mastery of the basic knowledge of big data science, reshaping the right to speak, solid core skills, making good use of the three big data frameworks, improvement of data literacy,We should strengthen the responsibility of data use and ethical awareness, and then create a scientific and healthy ideological and political work environment, and promote the innovative development of ideological and political work in the age of big data.

Keywords

Big data; Ideological and political workers; Data literacy.

1. Introduction

In 2012, the United Nations, in its White Paper on Big Data Development: Challenges and Opportunities, said:" The age of big data has come and the emergence of big data will have a profound impact on all areas of society. The field of education is no exception.'[[]] Present, the global educational teaching paradigm has experienced the development of the computer-aided teaching paradigm, which is characterized by "teaching + printing" and "new four samples ", namely, computer, network, whiteboard and multimedia courseware, from the experience imitation teaching paradigm to the data-driven teaching paradigm, which is characterized by" educational robot, intelligent teaching platform, 3D printing, VR/AR equipment, mobile terminal "as the teaching medium, and" text, audio, video and virtual scene "as the teaching content to realize the two-way interaction between the teacher and the learner.The new data teaching which permeates the campus has brought complicated and changeable contradictions and challenges to both educators and the educated, especially to the ideological and political work with "cultivating a person" as the basic task and the ideological and political workers with "setting a moral tree man" as the basic task.In December 2017, Xi Jinping delivered an important speech on the topic of implementing the national big data strategy during the second collective study of the new Political Bureau of the CPC Central Committee:" Big data is the new stage of information development.""Being good at obtaining, analyzing and using data is the basic work of leading cadres to do well.Leading cadres at all levels should strengthen their learning, understand big data, use big data well, enhance their ability to use data to advance various tasks, and constantly improve their ability to grasp the laws of big data development, so that big data can play a greater role in all tasks."Can be seen that cultivating and improving data literacy has become an inevitable requirement for the development of big data era, and ideological and political workers are no exception.

2. The Characteristics of Big Data and Its Challenges to Ideological and Political Work

Big data is a data collection characterized by many types, large capacity, high application value and fast access speed. Recently, big data has become a new generation of service formats and information technology to discover emerging knowledge, create new social value and improve the new capacity of the whole society. Big data under rapid development can store, collect and analyze data with various sources, large quantities and complex formats.Due to the convergence of economic society and information technology, the age of big data has developed rapidly, and data has become a basic strategic resource.In common data fields, big data for education is unique compared with big data in other fields.The purpose of big data of education is to serve education, not to blindly include all data.In the course of teaching, educators should filter and collate the data according to the purpose of education, not only to serve the current learning task of the educated, but also to prepare for deep data mining and analysis.As for this uniqueness, we can have a profound experience from the challenge of big data to the object of ideological and political work, the educated.

Firstly, the diversity and complexity of data acquisition bring fog to the shaping of students' values."The deep reason for the big data trend is that massive amounts of data exist and more and more are in the form of data," says Professor Viktor Mayer Schnb er-ger. Today's age of big data is reshaping the world. Like water and air, it is everywhere in our lives. Today's young people can' t live without big data, and such an age phenomenon has an important impact on the development of our ideological and political work.We know that there is a gap between different media's bias towards space and time, and the Internet in the age of big data pays more attention to space. When contemporary young people use the Internet too much, there is no doubt that their global consciousness and spatial consciousness will be strengthened, but the accompanying abilities of time thinking, deep thinking, information focus, history and truth will be lacking.When the mass of data with the characteristics of diversity and complexity flocked to the students, the students' knowledge growth, social insight and judgment ability were not strengthened.Too much data is acquired, less data is read; too much data is stored, and less data is digested by individuals; too much data is known, but the data that can be deeply insightful and understood is reduced.Such an age phenomenon and landscape not only make students suffer from the severe impact of multiple values, in the face of life crossroads of choice lost and lost, ideological and political work is tired of dealing with the students' values modeling dilemma, but also may result in more realistic expression of network emotions, upgraded into a group polarized network public opinion ecology, departure from the original intention of ideological and political work.

Secondly, the real-time and pertinence of data monitoring seriously challenges the ethical scale of education.Education ethics refers to people's ethics in training activities, focusing on the study of the relationship between education and human survival and development value and rationality.It is the ethical reflection of the relationship between educational activities in people's educational ideas, including education system, content, method, goal, result and evaluation.It is not only the behavior regulation of educators in their professional activities, but also the moral responsibility and obligation of education to society.Data ethics is the study and evaluation of ethical issues related to the production, storage, recording, processing, dissemination, sharing and use of data, designed to systematically interpret and demonstrate ethical solutions, such as correct value or correct behavior.In addition to our daily most familiar campus video surveillance technology, contemporary campuses also capture the learning situation information of students' learning time, place, state, content, environment and so on in real time through the combination of location technology and sensor.By wearing physical monitoring sensors for students, students' heart rate, pulse, blood pressure, body temperature

and other dynamic signs data can be continuously acquired, and physical health databases can be established for regional and even national students.Especially during the global campus epidemic prevention period of the new coronavirus outbreak, students wearing sensors can make the school easy to check the identity information of students and the status of students entering and leaving the campus at any time.From the perspective of education ethics and data ethics, the real-time monitoring system for students and the detailed and transparent personal dynamic data challenge the bottom line of ethics time and time again, trying to break through the boundaries of education ethics and data ethics, which undoubtedly gives ideological and political work a "cocoon self-binding" name and shackles, seriously affecting the credibility of ideological and political work.

Thirdly, the permanence of data retention and life-long adjacency become the shackles of students' physical and mental growth.Whether it is the traditional way of keeping student files or the new way of electronic archiving, the permanent and life-long characteristics of student file data retention are unchanged.Taking the "evaluation of the archive bag" as an example, the archive bag covers the entire span of a task from the beginning stage to the completion stage, and is a set of information that collects and reflects the students' learning and progress and the final product according to a certain purpose.The educator makes an objective and comprehensive evaluation of the students according to the file bag, which also promotes the combination of teaching and evaluation to a certain extent, and deeply demonstrates the students' learning ability, which is conducive to encouraging the students to exert subjective initiative and independent learning, but whether the contents of the file bag are objective or not is unknown.From the perspective of Marx's theory on the all-round development of human beings, the all-round development of human beings is "human beings in a comprehensive way, that is to say, as a complete human being, ultimately possess their own qualities."What direction, how and to what extent people develop depends on social conditions.The comprehensiveness of the individual is "the comprehensiveness of his realistic and conceptual relations." People's ideas and behavior change with the change of social relations, the remaining data of student files, lostCertain timeliness, but only as an additional reference for ideological and political work, not as the teaching data in the teaching process, if not, the loss of timeliness data will not only bring psychological and spiritual pressure to students, but also to the ideological and political work accuracy development and ideological and political education goals to achieve the deviation.

Finally, the accuracy of data projections is prone to blasphemy against students' human rights.The construction of digital campus makes the research on behavior analysis and prediction of campus students based on big data more and more popular.In a short time, the data method used to assist the prediction of students' achievement prediction and students' academic performance prediction is on the rise.Accenture, a well-known consulting firm, mentioned in a code of ethics for data practitioners that data doesn't affect everyone equally. Data is a tool that can cover more people or exclude some.The data gathered today is likely to play a role in an unknown matter some day in the future - that is the power and danger of data analysis.Sometimes a little less data may make the analysis more accurate and less risky.As a basic way of human self-discipline, morality is the most intrinsic and typical manifestation of human self-consciousness in grasping and understanding the world of their own life.So, the answer is yes, whether the real and effective teaching data needed for the real and effective moral learning or ideological and political work is from the voluntary and conscious moral choice and moral practice freely conducted by students rather than other passive data behavior analysis and prediction.Marx, in his 1844 Manuscript of Economics and Philosophy, made a concise and comprehensive study of the nature of human beings.Professor Schoenberg, a data scientist, also hit the nail on the head:" Using big data predictions to judge and punish human potential behavior is a blasphemy of fairness and justice and free will, while also belittling the

importance of deliberate decision-making."Schools and teachers must be deeply aware that students' free will is sacred and inviolable.They must not ignore students' independent choice and free will, and use so-called data behavior analysis to predict, deny or even suppress students' moral autonomy.

3. Significance of Data Literacy Improvement for Ideological and Political Workers

It is generally considered that teacher data literacy refers to the ability of teachers to locate, acquire, process and analyze different types and sources of educational data, and to transform the analysis results into knowledge to improve teaching behavior, so as to improve their professional skills and students' learning effects.From above, it can be found that the challenge of big data to ideological and political work is the challenge of ideological and political educators, and the key to solve the problems of educators lies in educators.Educators and recipients share risks.In fact, the ideological and political workers themselves occupy the leading position in ideological and political work, which is the breakthrough force to meet the big data risk challenge.As an integral part of the teachers' team, ideological and political workers have undertaken the important task of cultivating the "four talents" for the new era of socialism with Chinese characteristics, and improving data literacy is of great significance and value to the new China, which is in the rapid development of big data and urgently needed by high-quality talents.

Firstly, the improvement of data literacy of ideological and political workers is conducive to the cultivation of qualified political people.In China, the "political person" here refers to the person who is needed by the Party and the people who are bathed in the political system of socialism with Chinese characteristics and can add bricks to the modernization of socialism with Chinese characteristics.In the age of big data, quite a few young people are in danger of distorted political values and missing political beliefs.The obvious phenomenon is the "online trial ", the research found that the majority of the trial in the online world is not others, it is in the growing youth, they use their own inherent thinking and emotional will, mixed in the tide of online speech, beyond the judicial procedures to preempt the conviction, qualitative, quantitative punishment and other conclusions, the value of the case, moral and other prejudgment, formed a great influence of public opinion, not only hindered judicial justice, resulting in the government's communication difficulties, but also seriously affected the self and rule of law concept formation.The improvement of data literacy of ideological and political workers is beneficial to help young people to correctly identify the chaotic political ideology of the Internet, form correct political beliefs, cultivate orderly and rational network political participants and shape qualified political persons.

Secondly, the improvement of data literacy of ideological and political workers is conducive to the cultivation of qualified social people.In our socialist country, a qualified "social person" refers to a natural person with mature physiology who must identify with the market economy, political system, social culture and social ecology of a socialist country with Chinese characteristics, and who can use Marxist theory, the socialist theory system with Chinese characteristics and Xi Jinping Thought on Socialism with Chinese Characteristics to improve his life and become a real person who "does not forget the first thought and remembers the mission ".The process of individual growth and maturity is the process of one's socialization.The socialization of young people is the process of decreasing individual self, integrating self-subject consciousness with society, returning to society, polishing and socialization.In the age of traditional non-intelligence and the age of data weakness, it is difficult for us to consider the real maturity of individuals to return to society.Looking at the various social platforms, young people generally reflect that their production skills and cultural knowledge are not enough to

counter the operation of the big machines in modern society and that they do not have a strong sense of life goals. More than 70% of young people can not learn social norms and adapt to social roles, and even some of them are under too much mental stress and are in a state of "mental sub-health ".These are the data that ideological and political workers should pay attention to.The improvement of data literacy by ideological and political workers helps young people recover their sense of purpose in life, discover the beauty of life, experience the joy of existence, and shape qualified social personality.

Finally, the improvement of data literacy of ideological and political workers is beneficial to the cultivation of qualified moral people."The Tao is the Tao, very Tao."A moral person is necessarily a prudent person.In the age of big data, everyone can become a radio station, and the power of cautious independence in the group network environment, appears very little.Each individual is clamoring or intoxicated by the online catharsis and emotional expressiveness.An endless stream of internet troops, internet violence and internet sensationalism have caused countless uproar, challenging the bottom line of morality and ethics.What is the role of our young people in it? Whether it is a bystander, an agitator, or a participant, there is no clear conclusion.But it is certain that, according to the principle of supply and demand balance, certain content will exist certain consumption behavior, which has a direct relationship with the public's moral choice.Therefore, in this kind of data environment, only the ideological and political workers themselves improve the data literacy, can correctly guide the educated in the network torrent, do not blindly follow the consumer, self-discipline introspection, get rid of the bad data information "accomplice" role, can also use the network empowerment, actively advocate and supervise the network bad phenomenon, be a rational, warm, qualified moral person.

4. Path of Data Literacy Improvement for Ideological and Political Workers

As an education front-line worker, the data literacy of ideological and political workers is directly related to the quality and effect of data-driven teaching.How to cultivate a new ideological and political teacher team with high data literacy is one of the important problems that need to be solved in the high quality development of ideological and political education in the new era, and it is also an important demand for the innovative development of ideological and political education in the era.So what should be the path of data literacy improvement for ideological and political workers?

Firstly, we should establish scientific thinking and innovate the way of ideological and political work.Xi stressed," Only by taking China's reality as the starting point of research, putting forward a theoretical view with subjectivity and originality, and constructing a subject system, academic system and discourse system with its own characteristics can Chinese philosophy and social science form its own characteristics and advantages." The establishment of scientific thinking can not be separated from the reality of life, ideological and political workers must base themselves on the environment of big data era, master the development law of big data era, use big data and various new media platforms to master the basic network discourse, network media, network operation situation, so as to carry out ideological and political work more smoothly and freely, and reduce the increasing educational "bottleneck" formed by educators and educatees due to the "information gap "," generation gap" and so on in the course of education, resulting in unnecessary interactive "information game ".The premise and foundation of establishing scientific thinking mode and innovation is to have data consciousness, which is also the foundation of developing data literacy of ideological and political workers.In real life, educators often do not grasp the entry point of data and education and teaching, do not fully realize the potential value of education data, leading to the value of

education big data in ideological and political work difficult to play.This requires ideological and political workers to establish their own awareness of data, scientific thinking, how to collect and use the data of students' learning, life and other behaviors, determine the overall personal needs of students, and set the teaching objectives of ideological and political education reasonably and appropriately.For example, through data-driven cooperation and exchange with colleagues of the Ministry of Thought and Politics, formal and informal learning networks will be formed, and data modeling, questioning and other processing and analysis methods of data exchange will be carried out in the form of "ideological and political education exchange meeting "," Xi Jinping Thought on Socialism with Chinese Characteristics" and forums, so as to maximize the value of data and improve teaching methods.

Secondly, master the scientific basic knowledge of big data in education and reshape the right to speak.It is found that a large part of ideological and political workers in the teaching process, in the face of the complex current social affairs hot spots, the students' ideological and political concepts questionnaire and other data do not know how to screen and pre-processing, computer science and data literacy related basic knowledge is insufficient, not only can not accurately grasp the effective and invalid data, but also can not carry out a reasonable and accurate interpretation of data analysis results.This phenomenon causes ideological and political workers to be deprived of their right to speak, credibility and authority when sharing information with students in classroom teaching.In addition, some ideological and political workers have a sense of the lack of data literacy, but learning is hindered by the gap of the times and the shackles of traditional teaching ideas and methods, and can not study deeply, which is very difficult.Therefore, this requires society to provide accurate and powerful resources to support.On the one hand, the government should play a leading role in managing the lack of data literacy of ideological and political workers from the source.For example, big data theoretical knowledge is included in the vocational examination, simple data processing and analysis are added in the professional skills assessment; data literacy pre-service training is designed and developed, such as teacher data concept, data acquisition ability, etc.; practical feedback and improvement approaches are provided for ideological and political workers, data literacy is included in performance assessment and teaching quality is optimized; financial support is provided for data literacy training of local ideological and political workers, and data literacy is taken as a reference factor for teachers' promotion.On the other hand, schools should also create a data environment that can improve the data literacy of ideological and political workers.To provide teachers with operable and easily accessible data to facilitate their data processing and analysis; to support and motivate teachers to actively use new media and other new platforms to integrate time and resources; to support teachers to establish the relationship between data and teaching strategies; to consider data-driven decision-making as a continuous system process, to organize teachers to carry out theoretical and technical studies on a regular basis; to create a safe data environment for teachers and students throughout the school to ensure that the data of educators and educatees are not violated.

Again, build on your core skills and make good use of the Three Data Frames.Ideological and political workers need data literacy, not only basic skills, but also solid core skills.The "three data frameworks" mainly refer to the "senior" framework of academia:" data-driven decision-making "framework," data intelligence improvement process" framework and "using data project process" framework.These three frameworks sublimate the theoretical and applied value of data literacy based on the basic skills of data literacy, which is the core skill of ideological and political workers.The capacity-building framework of "data-driven decision-making" builds a complete set of data application process, which mainly includes data collection, data analysis, data-teaching combination, data application and evaluation feedback.It aims to help teachers improve their data-driven decision-making ability through interactive teaching, practice practice and specification.The "data intelligence improvement process" divides the

steps that ideological and political workers can effectively use student evaluation data into three stages:" preparation "," inquiry "and" action ".The "preparation" phase establishes a data team composed of administrators, teachers, etc., to help teachers understand evaluation reports and develop evaluation literacy; the "inquiry" phase creates an overview of data, digs deeply into student data, identifies a common problem in skills or knowledge for many students, i.e. the "learner-centered problem ", and then transforms the learner-centered problem into a practical problem by examining the data collected from teaching and learning; the" action "phase develops an action plan and confirms the method of evaluating student learning progress. It is worth noting that teachers repeat the cycle after the action phase and return to the inquiry phase.The framework of "using data project process" is a project of the Technical Education Research Center.The project adopts the teaching mode of online learning and offline practice.The five steps of data use are constructed to establish the basic environment of using data, identify students' learning problems, cause of using data validation problems, generate solutions and draw conclusions to provide the basis for educators' teaching strategies.

Finally, improve data literacy, strengthen the responsibility and ethical awareness of data use.A high level of data responsibility and ethical awareness is based on a profound teacher data awareness.Data consciousness is the teacher's perception of the data generated in the teaching process, understanding the behavior of teaching and learning from the perspective of data, and judging whether the relevant data can be used to optimize the education and teaching and other psychological processes.It is essentially a dynamic and comprehensive ideology, including data acquisition consciousness, data application consciousness, data openness consciousness, data value consciousness and data security consciousness.Educational data ethics is the inevitable product of the process of technology-promoting educational reform.It is a rational examination of the moral beliefs and behavioral norms that should be upheld in the process of producing, collecting, storing and analyzing educational data.It is a philosophical study on moral reconstruction in the field of education in big data age.The phenomenon of ethical anomie in educational data is a problem that should be paid attention to and solved in ideological and political work.To improve the data literacy of ideological and political workers, firstly, from the perspective of traditional ethics, the state should promote moral self-discipline in policy and strengthen the supervision of laws and regulations. In fact, according to the data security policies and regulations, the documents such as the Decision of the Standing Committee of the National People's Congress on Strengthening Network Information Protection, the Consumer Rights and Interests Protection Law, the Network Security Law and the General Provisions of the Civil Law have preliminarily constructed a three-dimensional framework combining civil, administrative and criminal protection, and the basic legislation has also been tested by practice in the implementation process.The highest principle of educational data is safety and reliability.The innovative vision is to discover the laws of education and improve the quality of education.The value potential is to drive the educational reform and realize personalized education, not because of the reaction of technology alienation.From the perspective of education, ideological and political workers should use data reasonably, respect students' privacy, protect students' rights, enhance safety awareness and prevent data leakage.

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