Research on the Dilemma and Breakthrough Path of Ideological and Political Education in Colleges and Universities in the Era of Big Data

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Abstract: The era of big data has had a more accurate, timely, extensive and lasting impact on the way of thinking and behavior of college students, which puts forward the reform requirements of "sense of the times" and "attraction" for ideological and political education in colleges and universities. However, the dilemmas in the process of combining the two are objective, such as the problems of the traditional subject-object relationship between the ideological and political educators and college students and the top-level design of school administration. Therefore, a two-way transformation combining top-down and bottom-up is the era requirement for traditional ideological and political education in the era of big data.
Keywords: big data era, ideological and political education, media literacy, data governance concept, data ethics

Introduction

Big data is a national basic strategic resource. Its application in the ideological and political work of colleges and universities has become an objective trend. Numerous ideological and political workers are relying on the power of new media to infiltrate the educational content into the study and life of college students in an all-round way with the help of mainstream platforms. However, traditional ideological and political education work and big data technology have natural barriers to integration in terms of theoretical principles, analytical methods and application purposes.

1. Barriers to integration: the reform requirements of traditional ideological and political education and the application requirements of big data technology

1.1 Value barriers between instrumental rationality and value rationality

As a technical means, big data emphasizes maximizing the use of conditions and means to achieve the design purpose, and analyzes the "portraits" of the target population from the maximum space and time, and the most specific conditions and purposes. This is typical of "efficacy rationality" and "efficiency rationality". Ideological and political education is just the opposite. It has a clear position and purpose, and pays more attention to the rationality of the process and the correctness of the goal. Therefore, the characteristics of big data are all rather than random, promiscuous rather than precise, and correlated rather than causal, which makes its combination with ideological and political education limited.

From the perspective of instrumental rationality, big data fits the reality of educational objects and fully covers the level of ideological and political work, which can improve the reliability and validity of ideological and political education, and provide technical logic for the use of big data in ideological and political education. From the perspective of value rationality, it is necessary to be alert to the problems of vague value and weakened functions of ideological and political education, which is the process logic that should be followed when ideological and political education uses big data [1]. It is worth noting that "data ethics" has become a direct result of the conflict between instrumental rationality and value rationality. Many mainstream apps have been criticized for excessively stealing user privacy. This is also the price of the advancement of big data technology — excessive personal privacy. exposure. Especially with the premature awakening of self-consciousness among college students, standards such as whether personal privacy is respected, whether private living spaces are safe, and whether personal choices are free are becoming more and more important.

1.2 Research paradigm barriers between speculation-driven and data-driven

The mainstream research paradigm of ideological and political education is speculative analysis. This is a research paradigm based on value judgments, and it can also become normative research or ought to be researched. It is the foundation and purpose of ideological and political education. The data-driven research paradigm is called the "fourth paradigm" of scientific research, or data-intensive science. Relatively speaking, speculative drive relies more on logical reasoning, that is,

the researcher's own knowledge structure and thinking framework. Data-driven relies on statistical reasoning, data mining, machine learning and other means to extract valuable information hidden behind data samples from massive data. In the process of combining the two in the research paradigm of ideological and political education, value judgment and fact judgment are essentially different, and sometimes even contradictory.

Can quantitative data be directly used as a criterion for judging the true subjective attitude of educational objects? The current reality gives the answer in the negative. For example, contemporary college students are extremely keen to browse short video apps. A content that attracts high attention tends to have a high number of views and comments, which is the structured data that big data relies on. But subjective attitudes driven by interest will have disagreements between pros and cons, likes and dislikes, and some neutral attitudes. These specific ideas can better illustrate the distribution of opinions of college students on this content, and are also the unstructured data that ideological and political education work tends to make value judgments about. But such a scientific and complete design is unnecessary or even disadvantageous to the operator.

1.3 Specific practical barriers between correlation analysis and causal analysis

The starting point of ideological and political education in the traditional sense is the "behavior and thought" of the educational object. The law of its formation, development process and changing trend is the basic paradigm for educators to study the community, and the analysis of causality is the most basic and core path. But thought is a non-intuitive and invisible inner expression, and the material for analysis also comes from the language and written expression of indirect behavior. The overall sample model favored by big data can indeed provide ideological and political educators with many optional, accurate and rich data. However, aside from the human, physical, and financial resources required to process these massive amounts of data for now, it is still a question of how the powerful correlation analysis of big data can serve causality.

Correlation analysis requires that two or more variables have a certain relationship or probability to be carried out. This essentially goes back to the role of causal analysis. In other words, correlation analysis is a means to accomplish the purpose of causal analysis. Compared with "integration", describing the relationship between the two with "cooperating" positioning may be the golden key to unlocking the weapon of big data.

2. The status quo of integration: the three-dimensional discord among school authorities, ideological and political workers and students

2.1 The functions of unified standards and resource integration of the school authorities are absent

In the past principles of ideological and political education, emphasis was placed on the shaping and management of the classic interaction between educators and educated. However, the characteristics of big data technology, such as high professional requirements, lack of relevant legal norms, rapid and accurate formation of results, etc., require schools authorities to quickly adapt to their functions as assistants and intermediaries, and upgrade the traditional one-way unstable relationship between two points to a stable relationship that tends to be an iron triangle from the space.

The analysis and processing of big data is the blind spot of the ability of ideological and political educators in traditional colleges and universities. First of all, processing data requires a lot of investment, and perfecting short-term capabilities requires supply of talents, foresight to formulate rules, and sound management of the system. How to deal with massive amounts of data and let the data "speak" is a thorny problem for most colleges and universities. Secondly, the method of processing data faces ethical questions and lack of support from relevant laws and regulations. Even universities with high "technological sensitivity" are still questioned when optimizing their own work by sharing student data with commercial platforms. Third, it is difficult to integrate multiple resources and platforms to form a comprehensive system for the application of big data technology.

2.2 The capacity of ideological and political education workers is insufficient

In China, there were 800 million Internet users in 2018, which generated 30 billion pieces of information every day and more than 11 trillion pieces of information every year[2]. In the face of college students, who have a wide range of interests and hobbies, it is necessary for the work team to have the ability to sort out the contents close to students' reality and in line with the needs of ideological and political education from the jumble of information and numerous platforms, so as to form the positive support force of data information for ideological and political education.

The update speed and degree of ability of ideological and political workers in colleges and universities cannot cope with the depth and breadth of data sources. There are a lot of distorted data on the Internet, and data fraud problems occur from time to time. Even when conducting questionnaires, some students will submit untrue answers for the purpose of self-protection. All this requires ideological and political workers to always be alert to the danger of their own insufficiency. But

this is not something that can be improved in a short time, and it is necessary to continuously absorb young and more capable members into the team.

2.3 Students' media literacy and immunity to Internet temptation need to be improved urgently

At present, there is three prominent problems in the media application ability of college students, that is, the symbiosis and coexistence of media application consciousness and weak information discrimination ability, higher media trust tendency and changing public opinion conformity psychology, perceptual media value cognition and anomie network moral behavior[3]. However, the large scale, high speed and various characteristics of big data require college students to have the corresponding media literacy. They will surely face an information-based survival competition in the future, and the "agenda setting" of bad media will directly threaten the status of ideological and political education in universities.

In the chaotic network world, hidden virtual identity has become the cover for students to commit network crimes. First of all, the media has broken the space and time limit for personal communication. The boundaries between the three basic places of school, family and society are no longer clear, and the only spatial boundary has become virtual and reality. What college students see, hear and see is mostly the "information cocoon" built by media through "agenda setting". Secondly, college students set their identity in the virtual world as "free people" with no liability. In recent years, the news of online violence has been constantly heard, and young groups have become the initiator of such incidents. The development of technology has turned into indirect violence. Thirdly, the strong plasticity of college students is exploited by strategies such as "consumption misunderstanding" and "personal daily style". Various platforms are no longer willing to be "data islands" and they sell user data to each other, especially the information of college students, which has become a disaster area because their value pursuit is easy to reshape. For e-commerce platforms, the weakness of college students to follow the trend, follow the trend and consume ahead of time are their profit points.

3. Breakthrough path: mutual advocacy and harmony in three dimensions

In the process of applying big data technology to ideological and political education in colleges and universities, the dilemma of technical sensitivity and technical rationality, theoretical feasibility and practical feasibility has resulted in many practical problems, and it is difficult to propose immediate countermeasures in a short period of time. However, within the foreseeable scope, there are still some basic points worth emphasizing on how to make good use of big data technology in ideological and political education in colleges and universities.

3.1 The bridge erection and top-level design of school authorities

As mentioned above, the school authorities will definitely become the center of the educational work in colleges and universities, and build a bridge between the educator and the educated. In addition, the function of the top-level design can also support the flat interaction mechanism in a more three-dimensional manner.

First, break down "data islands". Resource integration must be carried out between departments, between schools and between schools and operators, and cooperation should be carried out around specific and unified service objects and purposes.

Second, expand the information technology sector. Big data is always a technology, and strong technical support is the essential requirement for the use of big data in ideological and political education in colleges and universities. The most urgent task is to selectively recruit a group of technical personnel who understand technology and have professional ideological and political education, and build the school's own information database.

Thirdly, guide students to become responsible and qualified "netizens". It is the school's responsibility to set up lectures on related topics, strengthen the guidance of opinion leaders among students, and implement the real-name system on the campus platform.

3.2 Role transformation and skill supplement of ideological and political workers

On the one hand, the object of ideological and political education work is people, and people are not simple algorithms, and the data generated by individuals cannot be fully structured. Therefore, in the process of collecting, processing, analyzing and reproducing data, we must always be vigilant in materializing objects. consciousness. On the other hand, data processing requires high ability and literacy, that is, a correct big data view:

First, establish a correct view of big data and deeply understand the limitations and risks of big data. In practical application, the actual application effect of big data is affected by the cooperation effect of hardware and software, the superimposed investment of manpower and material resources, and whether the personnel who process the data have professional skills. The analysis results of big data should also be viewed dialectically. It is directly affected by timeliness

and extensiveness, and the calculation results can only be used as a reference for a new idea.

Second, transform personal roles and functions to grow with students. Take the legislative issue of the Internet as an example. Every year, new Internet products and applications enter the public's field of vision and become necessities of people's lives in a very short period of time. People's thinking methods and value judgments are relatively lagging behind. Therefore, it is necessary to switch from educator to learner, from guide to observer, and from two-way interaction to shared learning.

Thirdly, improve the personal capacity structure and cooperate with other departments. Collaboration and sharing between departments is unavoidable. Under the scenario settings of the same course, the same activity, and the same goal, assign different variables and arrange different functions, break the boundaries between different departments between different positions, and develop the potential ability of ideological and political education in colleges and universities.

3.3 Identification and literacy improvement of college students

At present, the research on big data in the ideological and political education work in colleges and universities focuses on the top-down perspective, but the teaching and learning obviously needs to be expressed from the bottom up. The huge value and potential hidden dangers of big data technology have raised the voice of young people, especially students, to the peak of history.

First, identity cognitive impairment is the most prominent problem, and real-world identities must be synchronized to cyberspace. It is accurate and not an exaggeration to use the concept of "identity cognitive impairment" to describe the value judgment of the current student group in the network. Requiring website entities to implement the real-name system is both a protection and a wake-up call for young people.

Secondly, key opinion leaders should pay attention to the ability to judge self-worth, and be a "leader" and "big speaker". These students are open-minded, quick to accept new things, and talkative. The suggestions published in the group are valued and spread by everyone. If they are actively guided, they can form an "expression field" within the university and condense collective values.

Thirdly, start with "knowing the law", then go to "law-abiding" and "usage". Laws and regulations play a significant role in data collection. "Data noise" mainly comes from distorted data, which in turn comes down to the mentality of the respondents themselves. When faced with virtual temptations, they can use laws and rules to warn themselves; when encountering the "attack" of big data, they can take up legal weapons to protect themselves.

Conclusion

In a word, big data is not a world with only algorithms, and human ideology still plays a crucial role. There is no doubt that the application of big data technology in ideological and political education in colleges and universities is an irreversible trend. Its powerful driving force and inestimable value have indeed brought it a qualitative leap, but "whether the benefits far outweigh the disadvantages?" ?" The answer to this question will take time and time to test.

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