

# **The Ideological and Political Education in China's Universities Based on Big Data Thought**

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## **Abstract**

*The rising up of big data idea has brought up a great influence and tremendous reformation in various fields in every country all around the world. Chances and challenges for the ideological and political education in China's universities are going hand in hand with the idea. Confronted with the new situation, a highlight should be cast onto the current situation of the ideological and political education in universities in big data era and the practical application of big data idea in the education so that mind-healthy, morality-lofty, highly educated and progressive high qualified talents in the era can be cultivated; and the ideological and political education in universities can remain active and vigorous.*

**Keyword:** big data, China's universities, ideological and political education.

The coming of the big data era is bound to seriously impact on and challenge the traditional mode of education. March 29th in 2012, Obama government claimed to invest 0.2 billion dollars on conducting "Big Data Research and Development Initiative" one of the mainly aims of which is to improve the current mode of education and study in United States with the application of big data. For a long time, United States weighs the leading position of education a lot in order to ensure its leading role around the world. The investment is an important signal for the beginning of transforming the traditional education modes by big data. As a result, a great impact on China's traditional ideological and political education in universities is inevitable. In big data era, personalized ideological and political education based on big data analysis is an irresistible trend. To be at the front of this trend, China's universities should be earlier prepared and catch it tightly by transforming traditional ideas and cultivating big data thought in order to discover new ways and modes of education to confront the impacts and challenges of big data era.

## **1. Understanding Big Data and Big Data Era**

### **1.1 Contents and Features of Big Data**

"Big Data" concept was first proposed by Victor Mayer-Schoenberg and Kenneth Cukier in a book called *Big Data*. It refers not stochastic analysis (sampling) shortcut, instead of using all of the data analysis and processing. Later, the world's most authoritative IT research firm in the world Gartner Group gives a definition: big data, also known as "massive data" refers to the need for new treatment model in order to have more decision-making power, strength and insight discovery process optimization capabilities massive, high growth rates and diverse information assets. And this new processing model is the method of an overall analysis of all data processing, the *Big Data* pointed out, the past is no longer the traditional sampling methods. Simply speaking again, get 10% of the amount of information to predict the remaining 90%, which is a small data; but

control 90% of the amount of information to predict the rest, it is a big data.

There are four characteristics of big data, simply summarized as 4V, namely Volume, Variety, Velocity, and Value. First, Volume, which means a huge volume of data, level jumped from TB to PB level; Second, Variety, meaning that data is variety, such as sound, images, videos, posts, comments, browsing traces, location information and so on. Third, Velocity, meaning that processing speed, also known as "one second rule", can quickly obtain high-value information from various types of data; it is essentially different from traditional data mining techniques. Fourth, Value, meaning usefulness, as long as use the data rationally and its correct and accurate analysis, will bring high value in return, but under massive big data, the value of the conditions showing the feature of low density. To some extent, big data is the cutting-edge technology of data analysis. In other words, big data is all the data through cloud computing and cloud storage brings together a wide variety of types; integrate analysis and processing, the ability to get valuable information quickly.

## 1.2 Connotation and Significance of Big Data Era

The arrival of "big data era," was first proposed by the world-renowned consulting firm McKinsey. They said, "Data has become an important factor of production, penetrating into every field of industries and business functions. The mining and use of vast amounts of data heralded a new wave of productivity growth and a wave of consumer surplus." Victor Mayer-Schoenberg and Kenneth Cukier defined in that influential book, *Big Data*, "an unprecedented way, through the massive data analysis, and get high-value products and services, or profound insight, "Information Management Specialist Xu Zipei believes that the big data of the "big", more meaning is that the information that humans can analyze and use is in a significant increase, these data is by means of exchange, integration and analysis, humans can discover new knowledge, create new value, and bring "big knowledge", "big technology" and "big development."

Since 2009, the "big data" has become the most popular keyword of IT industries; 2012, the concept of "big data" is increasingly widespread attention. By 2013, the "big data" penetrates into a variety of fields, showing tremendous force for change. Thus, 2013 is known as "big data first year." It tells us, whether we are aware of, feel, whether to accept, recognize, adapt, it has an irresistible coming. The arrival of the era of big data, giving people rise to a lot of scientific and social value. Victor said: "Big Data is a kind of technology, also a value and methodology. This is a big change in thinking, it is an interactive process - you can do big data in different ways at different angles and get different results with the benefits. "In *Big Data*," people can do things in large-scale data basis, and these things cannot be done within a small data base, it called Big Data. people can get through the large data updating knowledge, create updated values; Big Data can also change the organization and market, as well as the relationship between government and citizens. "All in all, big data already opened the major transformation of era, it has brought a profound influence and immense change of all areas in today's society. Ideological and political education in China's contemporary universities must meet the challenges of the era.

## 2. Current Situation of Contemporary Ideological and Political Education in China's Universities under the Background of Big Data Era

### 2.1 Big Data Thought Awareness Is Not Strong, Data Sensitivity Is Not High

Although the past two years, big data in the fields, such as IT industry, commerce, public administration has set off a storm of protest, government, business, CEO of electricity providers who have started big data model. The US government launched a "research and development plans of big data ". Ministry of Science and Technology of China clearly focus on supporting big data research in the National Key Basic Research and Development Plan, Guangdong Province set up a big data authority, clearly proposed a big data strategy. However, ideological and political educationists who living in the ivory tower were just like a placid, sitting

back means. In addition to "211", "985", which individual science background is deep and comprehensive research strength is big, leading a bit of the initial introduction of a big data management thinking into the ideological and political education and management, most other universities thought awareness is not strong, sensitivity data not high, know big data a little. For example, Sichuan Province, where the author comes from, there are total 109 colleges and universities, from the official reports and exchange understanding with other universities, the only university, Southwest Jiao tong University, clearly stated that the construction of "big data Campus", the establishment of schools "big databases", students use big data plotted on campus "behavior track" model to predict students' ideological situation and future development, it will be applied to large data ideological and political education of students and professional culture. Sichuan University, University of Electronic Science and Technology, Southwest University of Finance and Economics, Sichuan Normal University and other colleges in Sichuan, although several colleges have a lot of theoretical research in big data, but also limited in the implementation of the "One Card "in the" Digital Campus " of the ideological and political education and management aspects of the students. While most of the other provincial universities still remain in the traditional school system and the education and training of way stage, especially the ideological and political education work using, far not keep pace with the era of big data, only the basic functions of the Internet and new media.

## **2.2 Supercomputer, Big Data Cloud Platform Hardware Facilities Are Backward, Lack of Technical Support**

Particularly complex information technology is as a background and premise of big data mining and applications. 4V characteristic of big data determines it must not be treated with a single computer; you must use a distributed architecture and must rely on cloud computing, distributed database and cloud storage, virtualization technology, and thus the distribution of massive data mining. From a technical point of view, the relationship between big data and cloud computing is like a coin, inseparable as positive and negative. However, at this point, the vast majority of domestic colleges and universities are not available. According to official reports, the current East Network Technology, Northeastern University, already have their own Super Computer Center and Cloud Computing Center, and many other colleges and universities because of the nature of the subject, location, personnel structure, sources of funding and other factors, is still in the basic network campus status, lack of supercomputers, cloud platforms and other big data necessary hardware conditions and technical support. Such conditions directly restrict the connection with ideological and political education and the big data era.

## **2.3 Educators' Data Literacy Is Not High, Limited Proficiency**

If colleges and universities want to use big data to carry out ideological and political education, not only require advanced hardware and software technology for support, but also need to educate those who have certain data media literacy. But now, the situation is that most colleges and universities ideological and political educators' literacy of data media is not very high, big data, computers, their abilities to use Internet and other related knowledge and technology are very limited. Currently, most colleges and universities ideological and political educators are of liberal arts disciplines and not good at using science to practice thinking. They now mostly just use the Internet to obtain information on capturing network performance thinking and behavior of the students, and then to carry out ideological education and conduct guided through micro-blog, micro-letter, QQ space, forums and other new media posted it simple to organize and use. It also greatly affects the connection with ideological and political education and the big data era.

## **2.4 Evaluation System for Partial Qualitative Analysis, Quantitative Analysis of Light**

Big data is a science which based on mathematical and statistical super to maximize. Victor said in the *Big Data*, "It's just like the Internet adds communications capabilities to the computer to change the world, big data will also change the way we live in the most important aspect, because it created unprecedented quantifiable our lives dimension. "In the era of big data context, it becomes possible to quantify everything, including people's thinking, behavior, habits, emotions, preferences, and so on. However, the current evaluation system of ideological and political education is still based on qualitative analysis, quantitative analysis rarely taken to evaluate the effect of ideological and political education. At present, the ideological and political education work we do mainly with educators' intuition, experience, with the object of education, past and present performance of the continuation of the situation and the latest information, words and deeds of the educational objects, features, development and changes in the law to make judgments, using all these things to assess our educational results. The requirements of big data is a quantitative analysis of the largest maximum extent, all things can be quantified. It also severely restricted the connection with ideological and political education and big data era.

## **3. Establish a Big Data Thought and Explore the Path of Ideological and Political Education Reform Actively**

### **3.1 Keep Up the Pace with Times and Change Their Ideas Actively, Improve Data Literacy**

Thought decided to action, decision concept behavior. Big data era requires ideological and political educators to establish large data thinking, renewing our concept, improve data quality. Data literacy is a continuation and expansion of concept of media literacy and information literacy concept, which includes the sensitivity of the data; the ability to collect data; analysis of the data processing capabilities; the ability to use data in decision-making; data critical thinking. Contemporary college students are basically 90's; they live in the information age, the data information has a natural sense with intimacy. But our ideological and political educators are different, mostly are 60's, 70's, the minority are 80's, older than "90" students, some are a little bit out of in mastering and application of data really is. Therefore, we must take the initiative to suit the era of big data, change the way of thinking, make efforts to improve the sensitivity of the data, update their knowledge structure, improve the collection of data, analysis, processing and use of data for decision-making capacity, identify the ideological and political education foothold and focus of big data era.

### **3.2 Innovative Research Methods, Combining Qualitative Analysis and Quantitative Analysis, Focusing on Quantitative Research**

One idea of big data is that anything can be quantified. Big data highlights the approach is "sample = overall", that is, based on collecting and storing all data and the use of cloud computing platform to analyze processing and quantify statistics, finally to arrive at a specific relationship between the data and thus may make a reasonable prediction. And for a long time, most of the emphasis on ideological and political education qualitative analysis, quantitative research methods relatively ignored. This approach of interdisciplinary research era of big data should be completely transformed. Ideological and political educators should take the initiative to connect the era big data with features, focusing more on quantitative research methods, to learn to speak with the dates, understanding the phenomenon of the present situation of things by relationships between data, but not necessarily behind the phenomenon to find out "why" but already know the "what", so timely, targeted to carry out ideological and political education and achieve tangible results.

### **3.3 Use Big Data to Carry Out Tailor-made for the Individual Ideological and Political Education**

Big Data core values are to prediction. This kind of use of data to predict the relationship between conducted with college students, can help colleges and universities ideological and political education in real-time to understand the object of ideological education, study, work, living conditions, which has targeted the development of personality education. For example, the school network center back-end system can detect the type of student browsing web pages and duration automatically, if the time which used for leisure and entertainment, making friends or shopping exceeds a certain limit, the system will automatically block out the types of sites, and prompts students should plan your own learning time. At the same time, Big Data can also be used in data collection, calculation, predict the student's health condition and lifestyle network, in a timely manner to provide students with reasonable network life programs. Schools can also monitor the students' consumption recorded in the school meal card, the monthly consumption of less than a certain amount of student records as objects "they may have difficulties", and take timely care to understand the real situation of these students, according to the situation to carry out targeted helping work. Schools can also use "School card system", using big data platform to draw campus activities track of each student to get a better understanding of their learning, working and living conditions, and then personalize ideological and political education to achieve better educational results.

### **3.4 Introduction of the "MOOC", Flips the Classroom and Other New Models, and Promotes the Moral Teaching Reform Actively**

Big Data Era, people use the Internet perfectly gave birth of " MOOC ", flip the classroom and other new teaching model not only subvert the lectures, traditional school teaching mode fixed time and fixed location, but also subvert The traditional teacher-student roles, but received a better effect than traditional teaching. Therefore, ideological and political education should take teaching reform actively, too. Establish large data thinking, explore new teaching model and suit the big data era, adding "MOOC" and flipped classroom ranks. Development of ideological and political education "MOOC" and flip the classroom, it is good for integrating outstanding ideological and political education resources, saving teacher resource. Using the Internet, big data platform, breakthrough class, classroom, the number of students and other restrictions, and give full play of the initiative of students and transfer the right to choose and to decide of learning from teachers to students, it can greatly stimulate students' enthusiasm for learning in order to maximize the highest quality programs and services to all students. Such ideological and political education teaching models are the true sense of modern teaching modals under the big data era.

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