The Impact and Challenge of Big Data on China's Senior Education Governance

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Keywords: Education Governance, Senior Education, Big Data.

Abstract. Comprehensively deepening reform is a general objective for improving and developing the socialist system with Chinese characteristics. As an important part of Chinese governance system, universities are necessarily expected to be improved in the process of deepening reform. Under the mainstream of university governance, its main part—college governance will be the priority among priorities for deepening university governance. College education governance is a basic and dynamic process. It can be affected by financial policy, organization structure, technology and cultural environment. Among those, technological environment is an important repulsion for the modernization and humanization for education governance. As a tendency technology, big data will promote Chinese senior education institutions into a new time. From the three aspects including education governance philosophy, education governance mode and college education management, this article analyzes the impact of big data brought to the college education governance for Chinese universities; meanwhile, it further expounds the difficulty in data governance, data shortage and inadequacy of data motives education governance may be faced with in the time of big data.

Introduction
Senior education governance in China is decided from top to down by legal person and it is also characterized in political nature. What is unavoidable is bureaucracy. In addition, complex management procedure is another problem for the education governance. One of the reasons is that traditional college governance mode is affected by national economy and political system to certain extent. Therefore, the education governance of Chinese universities shall be managed top-down from the source and practice, from basic constitutional unit governance, instead of blindly learning from governmental and corporate governance experience [1].

The time of big data endows Chinese universities with an opportunity to realize education governance from the source and practice. Big data is originated from the initial constitutional unit data. With data as core capital, it is characterized in capitalization, strategy and socialization. With the increase of the consciousness of strategic capital, it is actively applied in college education governance and has become an important factor for strategic layout. The impact of big data to the college education governance philosophy, content, mode and means has been no longer a technological mean or a characteristic of a time, but instead an integration. This article tries to discuss the impact and challenge of big data to college education governance [2].

1. The Impact of Big Data to College Education Governance
1.1 To Education Governance Philosophy
1.1.1 More Open and More Tolerant
In the time of big data, the consciousness of open and sharing of universities gradually increases. In case of shortage of open consciousness, a university will be faced with “elimination” in the time of big data. The application and popularization of big data technology has increased the tolerance of universities [3]. The gap within the education system will be broken by the openness of data to realize
unified data. Data sharing can realize boundless universities; universities can make use of new communication mode to establish effective and legal revelation channels to highly effectively listen to the voice of basic constitutional units and increase the tolerance of Chinese universities for timely feedback.

1.1.2 Deeper and More Correlative

In the time of big data, the data intensity increases. The data universities can obtain and provide is original and authentic with high correlation. Big data can correlate with relevant data in different layers from different times, geographical positions and network platforms. Decision-making becomes deeper. All the seemingly irrelevant data can be deeply evacuated to show the hidden law. Too much extent, it reduces the risks brought by the uncertainties in the decision-making results. It can provide scientific data for decision-making without being dominated by empirical analysis.

1.2 To Education Governance Mode

Chinese college education governance mode has gradually developed with the arrival of big data time. After the rapid development of internet technology, big data technology is regarded as another significant technological innovation. One of the main governance factors for education governance is technology. The important repulsion for modernized education governance is continuously improving technology [4]. As to Chinese universities, innovative governance means start from technological innovation and development. Similarly, the governance mechanism innovation also develops from technological improvement. Open and interactive big data can share, disperse and circulate data to produce revolutionary impact on the education governance mode.

In consideration of the numerous and complex practical data of colleges and behaviors of teachers and students, data analysis can transform the disorder, hidden and static data to show orderly, dominant and dynamic; then, colleges shall deepen the data openness and strengthen the utilization efficiency of the personnel, organization and capital of colleges to reduce the administrative cost for colleges and increase the competitiveness of colleges; in addition, colleges shall also apply big data in network monitoring, anti-corruption and public opinion and so on to strengthen the decision-making power of colleges and increase the anti-risk capacity and scientific management. Big data can turn “waste” into wealth for the basic data of colleges and transform it into one of the important capacities for education governance.

1.2.1 College Decision-making with Social Attribute

The impact of big data to college decision-making is mainly dominated by the theoretical mechanism of innovative philosophy in big data. Reliable decision-making mainly depends on basic information data. If data information is not that precise, it is impossible for timely and accurate decision making. In the time of big data, information processing capacity can develop without limitation. The rapidly developed and accumulated basic behavioral data makes the college decision-making to show obvious social attribute [5]. Deep analysis on the college social behavioral data is a new trend for the development and innovation for colleges in decision-making governance mechanism.

1.2.2 Symbolic to Practical Participation

Before the time of big data, the participation of basic unit data is mainly reflected in—symbolic participation. Generally, college websites are dominated by informative information, for example leader activities, notices, announcements and policy publication and so on; some information data in college websites is slow in updating and feedback; investigation and participation feedback seem to be formalized in procedure; even much information is not asymmetric lacking publicity. However, with the arrival of the time of big data, Chinese universities began to make data and consciousness public and fully evacuated the host consciousness of teachers and students from “being participated” to “active participation”. The increase participation opportunities can also promote symbolic participation to practical participation [6].
1.2.3 Crisis Inhibition

Some crisis and risks are unavoidable. Sometimes they are even produced by multiple factors and correlations. Faced with risks and crisis, the application of big data technology can assist colleges in data management, beforehand alarming, risk monitoring and organizational coordination and so on. The correlation and statistics of low probability events is one of the main functions of big data, which can also control the uncertain risks within the controllable extent. The realization of early prevention can greatly increase the risk management capacity for colleges in education governance.

1.3 Challenges Faced by Education Governance in the Time of Big Data

Big data is a “double-edged sword”. In obtaining data resources for education governance, what follows are technological problems of individual privacy and data security, for example, the shortage of data effectiveness, inadequacy of participation and motives [7]. How to solve the problems is a new challenge for education governance in the time of big data [8].

1.3.1 Governance Bottleneck

From the perspective of education governance, there are large numbers of documentation materials with history of tens and even hundreds of years in universities. Such rich data property is utilized with low efficiency and frequency. Even part of materials several years ago, has no longer been visited, or it is difficult to be searched. Although in recent years, with the popularization and application of digitization, non-paper office has established many vertical and horizontal business systems through years of development that many documents have been digitized for storage, it is still difficult for data format and standard to be unified with abnormal structure of system and data due to differences in construction subjects, contents and fields. Universities are faced with data gaps lacking standard format. The hierarchy, independence and not completely open consciousness between colleges and data protectionism have not been obviously reduced. Over self-protection may isolate the data.

1.3.2 Data Shortage and Data Openness

In the time of big data, there are still many spaces waiting for improvement for data, for example, the sophistication of good and bad data, shortage of quality data, being full of low-quality data. Available, usable and reliable high-quality data is waiting to be found through suitable ways. Due to the status of the shortage of high-quality data, it restrains the education governance development to certain extent and the formation of data supply chain. Meanwhile, there is another problem for colleges in education governance—low data openness. As the core data capital for college education, college data has determinative function in teaching, scientific research and administrative management. However, the shocking brought by data openness is also not negligible. Complete data openness is unreasonable and unrealistic. Universities always competitively find reasonable balance point between privacy protection and data openness. Under such big data, the face that colleges make use of big data to find standard data openness in education governance is another challenge.

Therefore, during the primary stage of big data time, universities are required to find balance between useless and usable data, private data and open data to formulate reasonable and legal data strategy and system.

1.3.3 Data Motive and Credibility

The application of big data and motive of data collection is restrained by current education management system and function and long-term education governance habit. Due to inadequate motives, it is difficult to show the value of big data to universities and the active impact of big data to supporting scientific decision-making for universities. In the time of big data, the respect to the spreading speed is originated from the impact back the big data, rapidly expanding like butterfly effect. However, the phenomenon like “bad coin” expelling “good coin” frequently appears. For example: a small piece of negative news related to a university may produce fear and rumor, for the university credibility is “suspected”.
Conclusion

Social openness, mobility increase, network individuation and socialization are the characteristics of big data, so universities in China are also affected to different extents. Some of them are slow in response, while some others may appear painful in short time. Some are affected slightly, while some others are affected suddenly. No matter how the impact and effect are, such reformatory technologies like big data will produce great innovative trend to senior education institutions in education governance philosophy and service ways. In addition, the time of big data has arrived. How to collect, utilize and protect big data, how to make early warning and risk prevention through big data and how to make use of big data to formulate scientific decisions and undertake correct measures are what universities need to think about and actively respond to under the background of big data. It will be also beneficial for improving the completeness of the theoretical system of college education governance.

Acknowledgement

This work was supported by the National Natural Science Foundation of China (Grant no. 71601058), and Hei Long Jiang Postdoctoral Foundation of China.

References


