University Emergency Management Mechanism under the background of Big Data

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Abstract: Under the background of the big data era, the emergency management mechanism of colleges and universities has ushered in new development opportunities. Based on the problems existing in the emergency management mechanism of colleges and universities for a long time, this paper discusses the application of big data technology in the emergency management mechanism of colleges and universities, defines the principles of the application of big data technology, and analyzes the significance of the application of big data technology in the emergency management system of colleges and universities.

1. Problems in emergency management mechanism of colleges and Universities

Lack of comprehensive emergency management organization. Comprehensive emergency management organization is the core of emergency management in Colleges and universities. However, from the actual situation, most colleges and universities in China have not established a comprehensive emergency management department. The emergency management personnel in some colleges and universities are not professional, and the emergency management organization lacks long-term effectiveness. At the same time, due to the lack of funds, although some schools have emergency management institutions, the main body involved in emergency management is relatively single. This situation makes it difficult for the emergency management organization of colleges and universities to coordinate internally and externally, and it is also difficult to seek help from the outside world, which has great limitations in the emergency process.

Lack of early warning and prediction ability. The core of big data is prediction. In general, the higher the degree of grasp of the correlation, the higher the accuracy of big data prediction. Due to the lack of ability to control the past and present data, it is difficult for colleges and universities in China to predict future emergencies. In addition, even if some universities collect enough data, it is difficult to make a scientific and in-depth analysis of the relationship between the data. In addition, the staff of emergency management institutions in Colleges and universities lack professional training, and their ideology is difficult to keep up with the needs of practical development. The lack of professional training of staff is also a major problem in the reform and optimization of emergency management system in Colleges and universities.

Lag in dealing with problems. The important problem in the emergency management system of colleges and universities is the lag of handling. Colleges and universities do not lack data sources for mining and collection. However, in Colleges and universities, the decision-making mode of emergency management mechanism is highly subjective and often depends on the personal will of managers, which makes the causality of emergencies more important than the correlation, pays more attention to the response to current emergencies and despises the prediction of future emergencies.

There are defects in archives recording and information transmission. Archives institutions have a direct impact on the improvement of the whole filing system and the innovation and upgrading of policies. The shortcomings of archival records and information transmission lead to a gap between emergency theory and emergency practice. The emergency management mechanism of colleges and universities is not only related to the colleges and universities themselves, but also involves the

government, the people, the media and non-governmental organizations in the society. Because of the scattered communication between university information and various institutions, the information is not centralized and lacks unified management, which has buried hidden dangers for campus emergencies.

2. Reform of College emergency management mechanism based on big data

Build a comprehensive emergency management center centered on big data. In order to better deal with emergencies, the establishment of comprehensive emergency management center is of great significance. The emergency management center constructed by colleges and universities should take per control, in-process disposal and post evaluation as the basic principles. Based on the above principles, establish a three-dimensional and comprehensive emergency management organization with coordination system as the core and education and publicity system, decision-making auxiliary system, organization and implementation system and logistics support system as the core. In order to improve the quality and efficiency of emergency handling, the comprehensive emergency management center shall be equipped with professional personnel to be specially responsible for the daily management of the emergency management center and prevent and handle emergencies.

Use online analytical processing technology to strengthen monitoring and intervention. Online analytical processing technology is a multidimensional data set structure, which accesses the data aggregated and organized by business data sources. The application of online analytical processing technology in the emergency management mechanism of colleges and universities can enable decision makers to find the required data more efficiently and collect all kinds of data related to emergencies. This will help decision makers and staff to timely and effectively intervene in relevant problems even if they find potential safety hazards in Colleges and universities. Colleges and universities can use online analytical processing technology to monitor various situations in real time, and deeply analyze the correlation of data. Colleges and universities can detect problems in time, intervene actively and improve their early warning ability.

Establish the awareness of big data and reconstruct the decision-making system. In the era of big data, rational thinking of big data should be the primary competitiveness of colleges and universities. As a decision-maker of emergency management in Colleges and universities, we must have rational thinking of big data to continuously optimize the emergency management system in Colleges and universities. Before an emergency occurs, the emergency management decision-maker shall collect and analyze the data, find out the relevant relationship between the data according to the actual situation, and finally put forward the optimization scheme. On this basis, the prediction and early warning ability of colleges and universities can be effectively brought into play even if they will face more complex situations in the future.

Improve archives and records and enhance information transmission. Colleges and universities need the understanding, support and cooperation of other social departments in emergency management. Therefore, in the early stage of emergency management, the information section should contact various information institutions to expand the scope of information collection as much as possible, sort out the collected information and find the connection between different information. In the emergency process, the information section shall provide corresponding analysis to decision makers and present standardized information analysis reports. Emergency managers need to communicate timely and effectively with stakeholders and external media to actively strive for understanding and support. After handling the emergency, the archives department shall make detailed records of the occurrence process and handling process of the emergency, and keep them in the Internet office system.

3. Principles of big data technology application in University Emergency Management System

The application of big data technology should be student-centered. The ultimate goal of the reform and innovation of emergency management system in Colleges and universities is to ensure the personal safety of students. Therefore, big data technology plays a role in the emergency management

mechanism of colleges and universities, and can not deviate from the student-centered value orientation. Colleges and universities should promote big data technology among students to make students have a more comprehensive understanding of the emergency management mechanism of colleges and universities. Only in this way, when something happens, students can better cooperate with decision-makers to deal with emergencies. It should be noted that the application of big data technology in the emergency management system of colleges and universities should have a bottom line thinking, and the protection of students' privacy should be strengthened to avoid the leakage of students' privacy. The school shall also formulate relevant regulations to reasonably restrict the behavior of the staff of the emergency management mechanism and protect the privacy of students from infringement.

We should pay attention to thinking innovation when using big data technology. The big data background provides technical conditions for the reform of emergency management mechanism in Colleges and universities, but only technical conditions are not enough, and corresponding innovative thinking of emergency management institutions in Colleges and universities is also required. The thinking of innovative data governance in Colleges and universities should be based on the actual situation, actively explore the relationship between data, conduct in-depth analysis and master the law. In the process of thinking innovation, the emergency management mechanism of colleges and universities should pay attention to the unity of form and content, not only master rich data, but also apply data flexibly.

4. Significance of big data technology application to emergency management mechanism in Colleges and Universities

Big data technology promotes the intellectualization of emergency management in Colleges and universities. In the context of the big data era, intelligent data processing methods are gradually replacing the data processing methods of traditional emergency management mechanisms. Big data technology can comprehensively collect a large amount of information and ensure the quality of information collection of emergency management mechanism in Colleges and universities. Through the monitoring, screening, comparison and analysis of these information, we can focus on the emergency management mechanism of colleges and universities. On the basis of narrowing the scope of investigation and research, it can more accurately define the unexpected problems and present them in the form of data quantification.

Big data technology can drive the emergency management system of colleges and universities to make intelligent decisions. Because the recorded data has the functions of visualization, attribute data integration and spatial analysis, managers can have a deeper understanding of emergencies in the face of emergencies.

Big data technology has open characteristics, which is conducive to the realization of intelligent monitoring. Cloud computing processing system can convert data into graphics and present it through visual platform. This role of big data technology makes the scope of open sharing between different databases larger and larger, thus increasing the possibility of online supervision.

5. Conclusions

Big data is a data ecosystem. The vertical planning and horizontal connection of information can enable multiple social subjects to participate in the decision-making of emergency management events, realize the scientific mobilization of resources, and achieve multi-dimensional and effective cooperation between universities and subjects from all walks of life. In the context of big data, the emergency management mechanism of Chinese universities has obtained rare opportunities and is also facing new challenges. The establishment of emergency data information database, data collection and analysis and data analysis technology are important links in the reform and development of emergency management system in Colleges and universities. Chinese colleges and universities should comply with the development trend of the times, earnestly analyze the development of colleges and universities,

and optimize and improve the emergency management system in combination with the current situation of colleges and universities. Only by finding the correct positioning and direction can we use big data to promote the innovation of emergency management system in Colleges and universities.

Acknowledgements

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