

Methodology and Transformation of Tibetan Historiography Research in the Era of Big Data

Sun Changtao

College of Liberal Arts, Tibet University, Lhasa, Tibet 850000

Keywords: Big data, Tibetan historiography research, Methodology

Abstract: The advent of the era of big data has strongly promoted the evolution and innovation of scientific research. Under the background of the rise of big data, Tibetan historiography research can no longer be confined to traditional research methods, and should be changed and broken through. Therefore, in the research field of Tibetan historiography, we should not only innovate the research methods, but also further innovate the research methodology.

"Big data" refers to data whose size has exceeded the traditional scale and which is difficult to capture, store, manage and analyze by common software tools. The "big" of "big data" lies not only in its "large capacity", but also in the fact that through data exchange, integration and analysis, human beings can discover new knowledge, create new value and bring "big knowledge", "big technology", "big profit" and "big development". With the development of modern science and technology and the large-scale construction and development of data databases, it shows that modern society has entered the era of big data, and big data has inevitably intervened in the field of historical research. Data tools have also been used in academic research, especially in social science research, and have developed into a new research method. In the study of Tibetan history, big data has also made some achievements. As far as the relationship between Tibetan historiography research and big data is concerned, Tibetan historiography research is facing the transformation of research methodology under the new era background.

1. Tibetan Historiography Research in the Era of Big Data

Among the 56 ethnic groups in China, Tibetans are one of the few ethnic groups with their own language and writing. Tibetan literature is second only to Chinese literature in terms of quantity and type, ranking first among all ethnic groups. It is of great significance for Tibetan studies to digitize Tibetan literature and establish a Tibetan literature database.

According to the research results of "Big Data and History" collected by CNKI, most of the research results have recognized that big data is an indispensable method to study history at present, and Chinese scholars are gradually establishing their own history database. However, it should be noted that these historical databases often collect data from the large scope of Chinese history, but there are few researches on Tibetan history. According to the domestic data collected by the author, at present, China Tibetology Research Center started the collection and collation of Tibetan ancient books in 2015, and established the Tibetan Literature Resource Data Center of China Tibetology Research Center in 2017, which has collected more than 40,000 letters (departments) of Tibetan ancient books in Beijing, Tibet Autonomous Region, Qinghai, Gansu, Sichuan and other Tibetan areas. With the deepening of time, more relevant documents will be collected. In addition, relevant research institutes of Tibetan studies have been set up in Beijing, Tibet, Sichuan, Yunnan, Qinghai and Gansu. Among them, Tibetan areas in five provinces, for example, have more local advantages. Different from the big data collection institute of Chinese history, the data collected by the Tibetan Literature Resources Data Center of China Tibetology Research Center is more concentrated in the large discipline of Tibetology, in which Tibetan history is only one category, but not centralized and unified, which makes it easy to disperse the literature of Tibetan history research in other disciplines. Nevertheless, the establishment of the Document Resource Data Center provides information resources for scientific research and lays a solid foundation for the digitalization of Tibetan

historiography.

Applying big data to Tibetan historiography can effectively promote the evolution from tradition to modernity. The study of traditional Tibetan historiography mainly depends on historical documents and is based on the collection, sorting, classification and screening of historical materials. Digital historiography, represented by database, is a new historical research method which is different from traditional historiography and closely related to traditional historiography. Both digital historiography and traditional historiography take historical documents as their research objects. Digital historiography develops further on the basis of traditional historiography, extracting and deducing valuable information for historical research from a large number of original historical data, establishing relevant historical data databases, and promoting the reform of traditional historiography in combination with natural science and its research methods. Based on this point of view, in Wang Tao's article *Challenges and Opportunities: "Digital History" and Historical Research*, the research concepts of digital history, network history, econometric history, public history and e- textual research are compared and analyzed, and the "digital history" is qualitatively defined, namely: mining non-traditional historical materials, cooperative research, publishing results through the Internet, research results and historical materials.

2. Participants from Narrow to Wide

With the development of modern science and technology and the large-scale popularization of the Internet, historical knowledge has been widely spread. Historical research and historiography research are no longer the circle of professional researchers, and non-professional researchers also actively participate in it, and have written many influential historical works, such as *Those Things in Ming Dynasty*, whose authors are non-professional historians and professional historical writers, but their books are popular and popular among the public. The same is true of Tibetan history research. With people's constant attention to Tibet, a large number of non-professionals have joined the ranks of Tibetan history research. With the increasing number of participants, history is no longer limited to specialized academic research circles, but has become a popular topic of discussion. Every netizen can record history and participate in the discussion of history through the Internet. History has changed from specialization and niche to popularization and non-specialization in the digital age. This change makes professional researchers no longer enjoy the right to speak in history alone. "Amateur history writers, such as journalists, biographers and directors of historical film and television dramas, have been competing for and sharing the right to speak in history with historians." The right to speak in history has been diluted, and many new forms of historiography have emerged, from "one family's words" to "a hundred schools of thought contend".

The popularization of the right to speak in history has also changed the historical record and writing. Taking ancient Tibetan literature as an example, traditional records are mostly made by woodblock printing, engraving and paper, while historical records in the era of big data are recorded in digital form, which not only shortens the recording time, but also provides great convenience for researchers. However, it also caused a great debate about which is right or wrong between "paper reading" and "electronic reading", especially for professional history researchers, reading paper books is one of the indispensable basic qualities for history majors. Nowadays, under the impact of digitalization, this debate is increasing, but the digitalization of historical materials in the era of big data is an irreversible trend.

3. The Expansion of Research Areas

With the continuous strengthening of human's ability to understand and transform the world, the distinction between different disciplines is becoming clearer and more specialized. Liang Qichao once said: "In ancient China, there was no learning outside history, and all the records of human intelligence were included in history. As a result of the division in 2000, various subjects were separated, such as astronomy, calendar, official system, ceremony, music system, criminal law, etc., which was considered as an important part of history in the past, and then gradually separated from

history." History is becoming more and more professional, and its boundary with other disciplines is more obvious. The historiography in the era of big data has broken the boundaries with other disciplines while maintaining its professionalism.

Combining Tibetan historical research with big data has greatly expanded the horizon of Tibetan historical research. In the traditional research field of Tibetan history, most scholars focus their attention on politics, economy, religion and other fields. In the field of Tibetan history under the background of big data, it will greatly expand the research field of Tibetan history and Tibetan historiography by projecting the horizon to other social disciplines and even natural disciplines. With the continuous development and application of Tibetan historiography database, the correlation between disciplines is further strengthened, and there are no distinct disciplinary boundaries among disciplines, which breaks through the barriers of traditional Tibetan historiography, forms new research methods and expands new research horizons.

4. Big Data and the Transformation of Tibetan Historiography Research Methodology

In traditional Tibetan historical documents, there are many statistics about population, land and army, which are all manifestations of data. The transformation of historical methodology will inevitably lead to the innovation of research methods. Combining statistics with data in Tibetan historical documents can not only promote the development and application of database, but also promote the transformation of Tibetan historical research methodology under the background of big data.

4.1 Historical Measurement Methods

Metrological historiography originated in the west at the end of 19th century, and statistics are widely used in economic research. In 1882, Inama Stanger of Germany published *History and Statistics*, which is the earliest work on the history of metrology. In China, Liang Qichao first put forward the concept of historical statistics. "Historical statistics uses the laws of statistics to sort out historical data and infer historical sites with numbers." Both of them introduce mathematics into the field of history to study the quantitative relationship and spatial form in historical activities. The method of econometric history effectively makes up for the deficiency of qualitative analysis with the scientific nature of quantitative analysis. The application of econometric historiography helps researchers reveal historical laws, discover and predict historical trends (Wang Aiyun. *Application of econometric historiography in the study of contemporary Chinese history* [J]. *Contemporary Chinese History Research*, 2013(6)).

The application of econometric historiography to Tibetan historiography will bring about great changes in Tibetan historiography research with the maturity of application methods and the continuous development of discipline system. However, we should not exaggerate the quantitative research infinitely, fully realize the complexity of social history, not completely digitize history, but go to the wrong path of historical revisionism and historical nihilism.

4.2 Interdisciplinary Research Methods

Interdisciplinary research is a kind of new knowledge, theory and method which transcends the traditional discipline classification and is formed by mutual reference and intersection of different discipline theories. Because of the diversity of history, interdisciplinary research methods have been widely used since the birth of history. In China, history, philosophy, sociology, economics, political science and other disciplines are combined with each other, resulting in a series of new disciplines.

In the field of Tibetan history research, a new discipline has emerged, in which Tibetan history intersects with other disciplines. The main line of these disciplines is no longer confined to Tibetan history, but draws lessons from the research methods and theories of other social disciplines. We should boldly try new fields, such as combining Tibetan history with social disciplines and natural sciences, resulting in a series of comprehensive disciplines and their research fields such as Tibetan socio-economic history and Tibetan historical geography, which should fully reflect the interdisciplinary characteristics of historical research. However, this interdisciplinary is not a

random superposition among disciplines, but an organic combination with it according to the characteristics of history.

The transformation of methodology of Tibetan historiography research under the background of big data era is a new methodology system of Tibetan historiography research formed on the basis of inheriting tradition+innovating the present+organic integration. We should look at the traditional Tibetan historiography methodology and the new methodology system formed after transformation from a comprehensive and related point of view, which is the relationship of inheritance and development, not the relationship of separation. On the other hand, no matter how advanced science and technology are and how perfect the database is, it can't replace the independent thinking of researchers after all. Advanced science and technology provide great convenience for historical research, and the perfection of the database proves the scientific nature of history. In a word, the development of history in the era of big data is in line with the development trend of history.

5. Conclusion

The coming of big data era is both a challenge and an opportunity for Tibetan history and Tibetan historiography research. On the one hand, it breaks through the traditional research methods, and perhaps some traditional research methods are no longer suitable, so we should actively adapt and quickly master new research methods. On the other hand, by mastering the new research methods, researchers can no longer only focus on Tibetan history, but also project their vision into a wider subject field. so that researchers can study Tibetan history in multiple ways and from multiple angles to the maximum extent, and put Tibetan history in a wider field of vision instead of narrow Tibetan history research. It is necessary to fully realize that Tibetan history is only a small part of Tibetan studies and even social sciences, and put it in the field of social sciences, so as to have a longer-term development.

Acknowledgement

Fund Project: "High-level Talents Training Program" for Postgraduates of Tibet University, "Research on Disaster Management of Tibet by the Central Government of Qing Dynasty" (Project number: 2018-GSP-125)

References

- [1] Tu Zipei. Big data [m]. Guilin: Guangxi normal university press, 2012.
- [2] Wang Tao. Challenges and Opportunities: "Digital History" and Historical Research [J]. Global History Review, 2015(8).
- [3] Li Jianming, Q. Edward Wang, Wang Jiafeng, etc. Internet and the change of historical concept [J]. Historical Theory Research, 2011(4).
- [4] Liang Qichao. Chinese History Research Law Supplement to Chinese History Research Law [M]. Beijing: Zhonghua Book Company.
- [5] Wang Aiyun. The application of econometric history methods in the study of contemporary Chinese history [J]. Contemporary Chinese History Research, 2013(6).