



The Visual Analysis of Hanfu Research from the Perspective of Digital Humanities Based on CNKI

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Abstract. With the continuous expansion of big data, the in-depth exchange of data technology and humanities has given birth to digital humanities. In the long-term development of Hanfu research, qualitative research methods are mainly used while quantitative methods are rarely used. In the context of big data, the emerging research paradigm of digital humanities provides new opportunities for the in-depth and full display of the research in the field of Hanfu. Based on the technology of digital humanities, this paper analyzes and visualizes the theme papers of Hanfu in the CNKI core database, with the aim of revealing the problems in the research field under the background of digital humanities through the process of Hanfu research, so as to provide possible thinking for considerable development of Hanfu research.

Keywords: Digital humanities · Hanfu research · Visual analysis

1 Introduction

1.1 Research Background

Digital humanities emerged under the background of the continuous integration of computer science and humanities. Its appearance has profoundly affected the research process and content of humanities, enhanced the breadth and depth of researchers' cognition of humanities, and provided new methods, new perspectives, even new methods in researches of humanities, thus it gave birth to a new paradigm, which has been widely used in the field of humanities [4]. In the new environment of information, traditional humanities urgently need effective means to understand the new content, structure and internal laws of massive texts [7]. Some achievements have been made in researches of Hanfu in recent years, but the current results still cannot fully demonstrate the connotation, characteristics and charm of Hanfu or Hanfu culture. There is still enough space for further research, and the emerging research paradigm of digital humanities based on CNKI provides new opportunities for the in-depth progress and full display of the research in the field of Hanfu.

1.2 Research Purpose

Based on digital humanities, this article takes theme papers of Hanfu in CNKI core database as the research objects, analyzes and visualizes the research of Hanfu from the perspectives of general trends, discipline distribution, and research authors. In the meanwhile, it comprehensively analyzes research changes of Hanfu in the past 50 years with a view to discovering the deep cultural code of Hanfu through the digital development of Hanfu research, broadening the communicating space of Hanfu culture, and revealing the problems in the field of Hanfu research under the background of digital humanities, so as to provide further thinking on its long-term development.

2 Digital Humanities and Hanfu Research

2.1 The Rise and Development of Digital Humanities

With the continuous development of information and Internet technology, various technical methods have shown an all-round penetration in people's lives, and the field of humanities is no exception. Driven by digital technology, landscape of the research in the field of humanities has undergone tremendous changes, digital humanities also emerged as a requirement of the times. It has become a frontier interdisciplinary subject that has developed rapidly in recent years and continuously spawned new hot spots of research. Digital humanities is widely defined as "research on the intersection of computing tools and all cultural products [5]". As a typical interdisciplinary research field, it has a wide range of subjects, including linguistics, literature, and history.

Internationally, the field of digital humanities has gradually formed a clear academic community. A leading international alliance of organizations for digital humanities has been formed around the world, and more than 180 centers of research for digital humanities have been established, such as the Humanities Computing Center of King's College in the United Kingdom and the Humanities Computing Research Center of King's College in London, which has promoted the institutional construction and scientific research of digital humanities. With international cooperation, digital humanities projects such as the "Data Challenge in Mining" in the United States, the "Slade Archives Project" in the United Kingdom, and eAQUA in Germany have been rapidly developed. As the influence of the new topic of digital humanities continues to deepening in the world, our country's research in the field of digital humanities also continues to follow up.

In recent years, the research of digital humanities has heated up. Institutions have been established successively, thus a number of research results which integrated Chinese culture have gradually formed, such as the Digital Humanities Research Center of Wuhan University, the Social Science Data Research Center of Fudan University, and the Digital Collection Research Center of National Taiwan University [4]. So far, China has opened a new chapter in the field and issued the voice of the times belonging to China.

2.2 The Possibility of Digital Humanities in Hanfu Research Based on CNKI

Hanfu, also known as national costume of ancient China, is centered on the Chinese etiquette culture and formed a thousand-year-old system of ceremonial clothing and

crowns under the admiration of the Chou rituals as well as the principle of modeling Heaven and Earth from Han dynasties. Throughout the history, the development of Hanfu is integrated with the context of Chinese culture. It has experienced the vicissitudes of life together with Chinese civilization, carrying long history and thriving culture. It presents different eras along with the changes in the thinking and aesthetic concepts of the times [6]. Contemporary researchers show the vigor and elegance that have been lost in the dazzling new culture to the public through the inheritance of national costumes, awaken people's sense of national identity, and influence generations of people to consciously understand and learn traditional culture, in order to establish the cultural self-confidence belonging to this nation and promote traditional culture of China.

Under the background of big data, the application of digital humanities in the field of Hanfu will certainly provide a new perspective for related researches. Currently, the possibility of applying digital humanities in Hanfu research has been fully verified. For instance, research documents can be divided into certain elements based on the concept of data organization (ie, author, keywords, subject headings, text, citations, references, etc.); research documents on Hanfu can be transformed into digital and technically operable combination of knowledge units; using visual analysis or other methods to show the research situation of Hanfu and its specific content in the form of pictures which break through the traditional paradigm of humanistic research.

In a word, in the context of the era of information technology, the use of digital humanities not only effectively combine digital technology and humanities, but also broaden the application of information technology and improve the research methods of humanities. However, the application of digital humanities in comparative literature cannot replace traditional research methods. It can be used as a new research method or as an effective supplement to traditional research methods and form a new formation of interdisciplinary integration [4].

3 Visual Analysis of Hanfu Research Based on Digital Humanities

This article is dedicated to sorting out research papers in the field of Hanfu. Considering the cultural characteristics of Hanfu and the research value of this article, only the data set of CNKI database is selected as the data source. Comprehensively considering the research focus, the author decided to use a logical relationship search formula (Subject% = 'Hanfu' or title% = 'Hanfu' or title = xls('Hanfu') or v_subject = xls(' Chinese clothing ')) to retrieve the total library, which obtained 1995 pieces of results (data last updated: January 12, 2021), the time span of all results is from 1983 to 2021, and the results form a collection of data analysis for this article. Based on this, the author will conduct a visual analysis of Hanfu research from three aspects: general trends, discipline distribution, and research authors.

3.1 General Trend

Based on the CNKI data collection, the author conducts a visual analysis of Hanfu research, and obtains the annual trend (general trend) of papers' publications in the field of Hanfu research in the past 50 years (1983–2021).

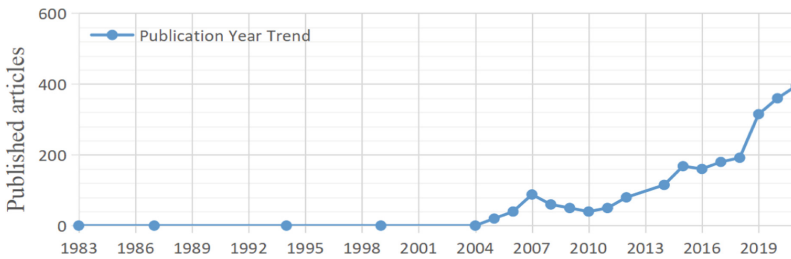


Fig. 1. Analysis of general trend

It can be seen from the Fig. 1 that the trend of publications in the field of Hanfu research is generally on the rise. There was a steady state of maintenance from 1983 to 2003. During this period, the research has sprouted but still weak; there is an upward trend from 2004 to 2021, which shows the public is paying more attention to Hanfu. The research has made considerable progress in the 21st century, not only because of the “Hanfu Revival Movement”, but also because of domestic and foreign policies.

On the one hand, since the beginning of the “Hanfu Revival Movement”, a wave of Hanfu revival has been set off around the whole nation. Wang Letian put on Hanfu and walked on the streets for the first time on November 22, 2003. This was the first time that costumes of ancient China appeared on the streets from its disappearance for more than 300 years. Although this set of Hanfu is simple and plain, he sews it stitch by stitch. Wang Letian and his friends set up studios, searched for documents and dedicated themselves to the revival of Hanfu [1]. The actions were widely circulated after being reported and received support from a majority of people. They were not the lonely voice of the times, but the epitome of thousands of traditional culture lovers. The revival of Hanfu is imperative, the only difference is a matter of time. Seizing the opportunity, a large number of Hanfu lovers from different ages and identities rose and put on Hanfu, walked out of the house, and even went out of the country, bringing the traditional costumes that have disappeared for more than 300 years back to the public, in order to make Chinese culture bloom again.

On the other hand, support from domestic policy has a profound impact at home and abroad. The report of the 19th National Congress of the Communist Party of China clearly stated that cultural self-confidence is a more basic, deeper, and more lasting force in the development of a country and a nation. It is necessary to dig deeper into the ideological concepts, humanistic spirit, and ethics contained in the excellent traditional Chinese culture, in line with the requirements of the times. In the meanwhile, we are supposed to let Chinese culture show its permanent charm and contemporary style by inheriting and innovating. The “Opinions on the Implementation of the Inheritance and Development Project of Chinese Excellent Traditional Culture” issued by the General Office of the Central Committee of the Communist Party of China and the State Council pointed out that it is necessary to strengthen the research and interpretation of Chinese culture, in-depth study and interpretation of the historical origin, development context, as well as basic trend of Chinese culture, and profoundly clarify the Chinese culture. Excellent traditional culture is a rich nourishment for the development of contemporary Chinese

Marxism, profoundly clarified that inheriting and developing excellent Chinese traditional culture is the practical need for building socialism with Chinese characteristics, and profoundly clarified that rich and colorful multi-ethnic culture is the basic structure of Chinese culture. The Chinese civilization has been enriched and developed through continuous exchanges and mutual learning with other civilizations, striving to build an ideological system, academic system and discourse system with Chinese heritage and Chinese characteristics [2].

These related expressions and policies of the party and the state all mean that the party and the state have put the construction of an excellent traditional cultural inheritance system on an important level. Hanfu culture is also an integral part of Chinese excellent traditional culture, which provides nutrition for the cultural development of the Chinese nation, and its inheritance and development are highly compatible with the requirements of the party and the country. At the same time, the education department also responded to the issues. In 2016, Professional English Test Band 8 was reformed and the English-Chinese part was canceled. Our country has paid great attention to English learning for several years, and now this initiative aims to make Chinese students pay more attention to own mother tongue. Language is the carrier of culture, as an English major, it is not enough to learn English well. The ultimate goal of learning English is to make language serve culture, that is, to use language as a means of cultural learning, communicating and spreading.

3.2 Discipline Distribution

It can be seen from Fig. 2 that the top 3 disciplines in the field of Hanfu research are mainly light industry and handicraft industry, secondary education and culture (light industry and handicraft industry accounted for 30.71%, secondary education accounted for 14.26%, and culture accounted for 9.18%). Among them, the proportion of light industry and handicraft industry is twice that of secondary education and three times that of culture. It is not difficult to discover from the pie chart that education and culture have not received the attention they deserve in the field of Hanfu research. The phenomenon that light industry and handicraft industry occupy the top position is closely related to the commercialization of Hanfu culture.

Since the beginning of the Hanfu Revival Movement, the commercialization of Hanfu has continued to deepen. At the beginning of the movement, Hanfu was mostly sold through online stores, with fewer offline physical stores which were usually distributed in ancient towns, ancient streets and other antique landmark buildings, such as the ancient town of Xitang in Jiaying, Zhejiang, and Hefang Street in Hangzhou, Nantang ancient street in Ningbo, Zhejiang, etc. Since the development of the Hanfu Revival Movement, both offline physical stores and online stores are increasing from a national perspective. Although the price of Hanfu is relatively expensive, the styles are complicated as well, the sales of Hanfu in recent years have been increasing year after year. In the current era of commercialization of Hanfu, the fabric, shape, design, and innovation of Hanfu have undoubtedly become common themes of subject research. From this point of view, it is not surprising that light industry and handicrafts are at the top of the list.

In the final analysis, the Hanfu Revival Movement is still a cultural revival movement in essence, and its fundamental starting and ultimate point are definitely not economic

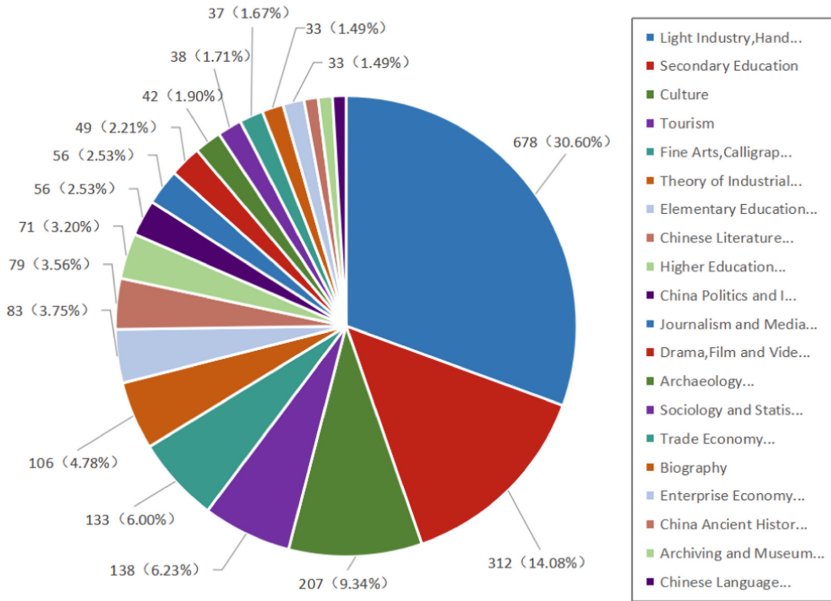


Fig. 2. Discipline distribution

benefits. The commercialization of Hanfu culture should not be a method for businesses to grab profits. In principle, it is supposed to serve for cultural inheritance and become an effective way to spread culture. Scholars in the field of Hanfu research are supposed to focus more on the inheritance of Hanfu culture and the cultural education of Chinese nation instead of focusing on the light industry and handicraft industry.

3.3 Authors of Hanfu Research

As shown in Fig. 3, the outstanding Chinese authors in the field from the results are Zhou Xing and Bao Huaimin, who have published 12 and 10 articles respectively. However, the research authors in the field of Hanfu rarely from leading universities in the well-known majors like Chinese language, Chinese as a foreign language or Chinese international education, which shows that Hanfu research still has a long way to go (Zhou 2000). As shown in Fig. 4, the distribution of overseas authors is particularly single. Since then, we cannot deny that Hanfu and Hanfu culture not only lack the necessary influence in China, but also lack audience groups and dissemination efforts overseas. The phenomenon of Hanfu research is closely related to the influence of Chinese in the world.

The current development of “teaching Chinese to the speakers of other language” in the world presents the following characteristics: First of all, the number of Chinese learners is growing rapidly while the scale of teaching continues to expand. However, Chinese is still a “non-universal teaching language” in most areas around the world. Then, Chinese teaching is still attached to Sinology and has not become an independent subject. Last but not least, Chinese professional and academic education have developed while Chinese teaching has a trend toward primary and secondary schools, but students who

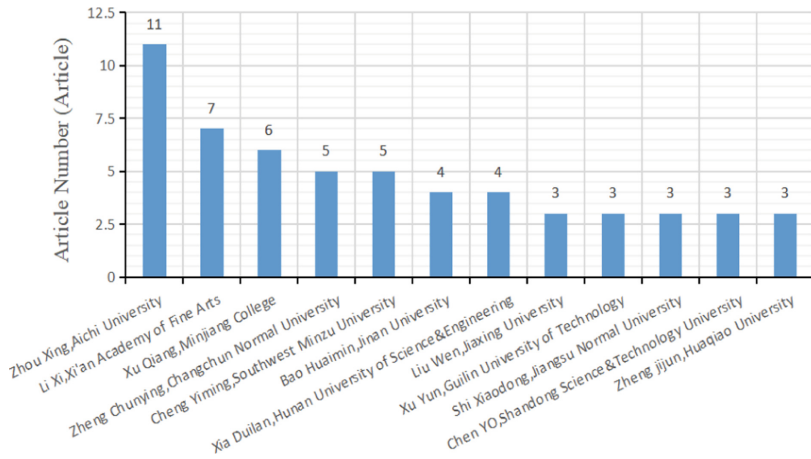


Fig. 3. Distribution of Chinese authors

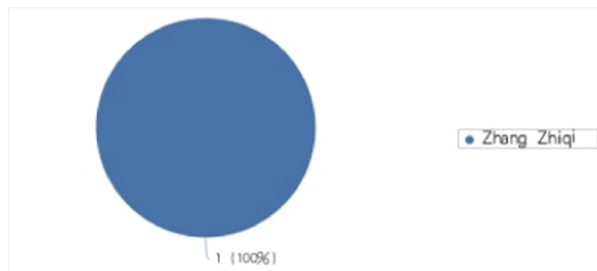


Fig. 4. Distribution of Overseas authors

learn Chinese are still at a basic level, most regions are not yet able to train senior Chinese talents. Although the subject in the world has made great progress, its current situation and status are not commensurate with the influence of ancient Chinese civilization.

From this point of view, there are many imperfections in Chinese teaching, and there is still a long way to go. Under this premise, the spread of Hanfu and Hanfu culture will inevitably face various challenges. For instance, overseas friends who are lack of understanding of Chinese culture under the condition of limited Chinese proficiency will be not able to get interested in Hanfu or culture.

To sum up, in terms of the overall trend, the number of documents about Hanfu research has been increasing during the years, and with the increase of public attention to Hanfu, the upward trend has become more pronounced; In terms of the distribution of disciplines, the research topics are generally clear, but the research of light industry and handicraft industry is overwhelmingly dominant, surpassing culture and education. For the researchers, there is only one overseas author in the field. This shows that the research resources of Hanfu are scarce while research strength is weak, thus it is urgent to be improved and perfected. At the same time, domestic experts and scholars are supposed

to pay more attention to Hanfu research, enrich domestic research resources, so as to carry forward Chinese culture.

4 Conclusion

It is not difficult to find that there are still certain problems in the field by introducing the digital humanities method into Hanfu research and visually analyzing the research literature. Due to the limitations of research materials and research time, the visual analysis of the Hanfu research in this article has stopped at a simple quantitative analysis based on CNKI, and has not been able to continue in-depth research. Therefore, it needs to be supplemented and corrected. Under the background of big data, the emergence of digital humanities not only provides a new opportunity for full display of Hanfu research, but also provides the possibility to use digital humanities to protect and inherit outstanding culture of the Chinese nation. These will be continuously enriched and improved in the further process.

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