# Analysis of the Current Situation of Chinese Social Innovation Design Research Based on Citespace

DOI: 10.23977/jsoce.2022.041019

ISSN 2616-2318 Vol. 4 Num. 10

# Ying Shen\*, Xue Du, Yifei Chen

College of Architecture and Art, North China University of Technology, Beijing, 100144, China \*Corresponding author

**Keywords:** Social innovation design, Citespace data analysis, Research hotspots

**Abstract:** The purpose of this paper is to sort out and point out the output distribution, fundamental characters and research hotspots of the results related to Chinese social innovation design research, and provide a certain reference for the follow-up research. The data in this paper is based on the CNKI database and the data visualization analysis software Citespace. At present, the research of Chinese social innovation design mainly focuses on public social life based on the service design and the sustainable design, but as China enters a new era, how design can better serve the society and the people will undoubtedly be a contemporary designer Important proposition for thinking.

#### 1. Introduction

The concept of "social innovation" was firstly proposed by reformers in the 19th century, and was crossed after extensive discussions by modern management masters, such as Peter F Drucker and Michael Young in 1960s. Applied to various disciplines, but has not formed a unified concept. Today, it can be a design, a technology, a product, as well as a set of ideas or methods.

In short, social innovation is a new method and new thinking to meet social needs and achieve social goals. Or redefine social innovation: Social innovation is a process of constant change. The process begins with the recombination of social resources (including history and culture, social assets, traditional crafts, and advanced technologies) in an effort to gain social recognition and serve the public. From the definition, it is not difficult to find that social innovation will be an important part of society and continue to exist now and in the future. Today, more and more countries are taking the path of sustainable development. In order to solve the difficulties in the process of achieving sustainable development, the initiative of using social innovative thinking to solve social problems is increasing and will soon become widespread[1] Therefore, we need to attach importance to social innovative thinking.

From the perspective of design, Professor Mancini, founder of the International Alliance for Social Innovation and Sustainable Design Network (DESIS), defines social innovation design as a design method that makes social innovation more efficient and effective. From the dimension of sustainable development, three ways of social innovation design are summarized from social innovation examples: top-down, bottom-up, and top-down and bottom-up hybrid. We will introduce

technological innovation into social innovation design, and advocate the strengthening of cooperation for a new sustainable society. With the rapid development of social innovation design, emerged a large number of research results, but an analysis of the research status quo of China's social innovation design article less, based on this, this article, through combing the literature, combing the domestic social innovation design output distribution, the basic characteristics of related literature, the research hot spot, provide certain reference for subsequent research.

## 2. What is "Social Innovation Design"

In 2012, the Young Foundation of the United Kingdom analyzed and summarized important literature on social innovation design, and defined it from the perspective of social issues as innovative activities and services that can meet social needs and create new social relationships or cooperation models. Five core elements of social innovation are cited: novelty, from idea to implementation, meeting social needs, and effectively and strengthening social action[2]. Social innovation design can generally be summarized as: starting from design ethics, reconnecting social roles, establishing new social relationships, and realizing them through design practice. In recent years, social innovation design has attracted much attention in the design field in China and abroad. Not only many well-known academic publications have carried out in-depth discussions; designers have also actively participated in social and public service activities, leading to the great discussion about housing, education, environmental protection, public security, etc. From the theoretical and practical levels, people's understanding of social innovation design methods and goals has been updated.

China is transforming into an innovative society, and Chinese design is undergoing a transformation from "Made in China" to "Created in China". The challenges faced in this process include not only technical issues, but also social, economic, political, cultural and other factors together. Therefore, designers are no longer thinking about simple form or function issues, but should pay more attention to social issues. As Professor Ezio Manzini, founder of the International Social Innovation and Sustainable Design Network Alliance (DESIS), said, "In traditional perceptions, people are considered part of the problem, while in the new concept of public service, people become problem solvers." In Professor Mancini's view, "social innovation design" should be a design that changes the social form[3]. Active members of the society actively participate in the planning and design of public services, achieve real user-participatory co-creation, and work with professional designers to solve problems.

# 3. Descriptive Analysis of the Research Results of Social Innovation Design in China

With the vigorous development of social innovation design, a large number of research results have emerged. In order to have a clearer and more accurate understanding of the current situation, this paper uses the CNKI database as the data source and Citespace software as the technical support to sort out the Chinese documents. This paper focuses on analyzing the output distribution, hot issues and frontier trends of Chinese research on "social innovation design", thus summarizing the opportunities and challenges facing China's social innovation design at present, in order to provide an effective reference for follow-up research.

Citespace is a data visualization analysis software developed by Professor Chen Chaomei of Redsell University in the United States. It is an important technical support for the Mapping Knowledeg Domain[4]. Through this software, relevant highly cited documents can be extracted, and corresponding scientific knowledge maps can be drawn to display the research status of a

certain topic, thus providing directions for scholars to carry out follow-up research.

In order to ensure the credibility of the research data sources in this paper, I searched CNKI database with keywords such as *social innovation design*, *social design*, *social innovation*, and then selected SCI, EI, CSSCI, CSCD and Chinese core journals, Doctoral dissertations and Master dissertations are the main sources. The searching results obtained are carefully screened, sorted and sorted, and 180 high- quality data samples have been obtained.

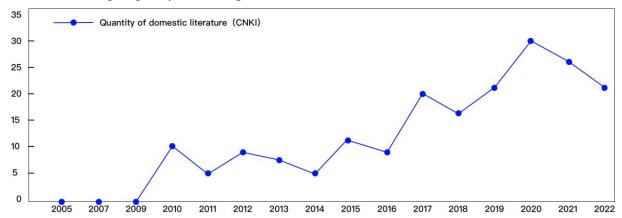


Figure 1: A Line Chart of the Time Series Change of Domestic Social Innovation Design Publications

Although social innovation design is not a new type of design, as the intersection of various branches of design disciplines, the first high point of research publications appeared in 2010 (Figure 1). In 2016, the Chinese translation of Professor Mancini's monograph "Design When Everybody Designs", made the Chinese research on social innovation design achieve the first rapid growth in 2017. In the same year, Comrade Xi Jinping proposed the rural revitalization strategy. In 2020, the institutional framework and policy system of the rural revitalization strategy basically formed. Correspondingly, the research in the field of social innovation design has ushered in another small leap.

| 2005年                   | 2007年                 | 2010年                   | 2013年                    | 2016年                    | 2019年                | 2022年                     |
|-------------------------|-----------------------|-------------------------|--------------------------|--------------------------|----------------------|---------------------------|
| Community collaboration | Enterprise innovation | Service design          | Interaction design       | Collaborative design     | Collaboration city   | Collaboration city        |
| Social innovation       | Social innovation     | Innovative design       | Green design             | drone                    | Wisdom campus        | Shared economic           |
| "Empty nest" youth      | Technology innovation | Sustainable Design      | The system design        | Innovation of intangible | Rural revitalization | Shared kitchen            |
| The social construction | Education innovation  | Participatory design    | People to participate in |                          | aging                | The social responsibility |
| Youth apartment         | The public service    |                         | The product design       |                          | Community design     | The elderly education     |
| The teaching design     |                       | Urban/rural communities |                          |                          |                      | A smart community         |

Figure 2: Main Research Areas Involved in Domestic Social Innovation Design

From the perspective of research scope (Figure 2), the concept of social innovation design has been applied to many social practice fields, and the service objects have shown a trend of diversification, but the design methods have certain similarities, realizing the transition from designer-led design to national participatory design and collaborative design, co-design shift. Design content expands from industrial demand to social demand; design value develops from difference to interconnection.

From the perspective of researcher status, the top 5 scholars who published papers are: Teacher Gong Miaosen from Jiangnan University, teacher Zhong Fang from Tsinghua University, teacher Ji Tie from Hunan University, teacher He Renke from Hunan University, and teacher Lou Yongqi from Tongji University. Among them, Mr. Gong Miaosen from Jiangnan University accounted for 7.82 %. His main research fields are social innovation design, sustainability and service design. He advocates grassroots social innovation and design as the main way to intervene in social innovation, and advocates a new concept of happiness, and points the new concept of sustainable development and the new path of sustainable development should be constructed on the basis of social text and comprehensive social quality. Design plays a new role in the field of social innovation and has a new impact[5].

Several other representative investigators are listed below. Professor Fang Zhong from Tsinghua University takes the system concept as the foundation of social innovation design, and advocates that the object of design should gradually change from "things" to systems, and believes that this will be an important direction for social design to seek solutions[6]. Mr. Tie Ji from Hunan University combined social innovation design with collaborative design and localized design, and made a systematic study on the social responsibility of design and the methods of participating in social practice from the perspectives of sociology and design. On this basis, a transition from user-centred design (UCD) to community-centred design (CCD) is proposed[7]. Professor Renke He of Hunan University's research fields are mainly industrial design, sustainable design, interaction design, and emotional design. He advocates the analysis and comparison of domestic social innovation design through visual analysis tools, and provides reference for subsequent research [2]. Professor Yongqi Lou of Tongji University's research field is mainly social innovation design and sustainable design, and he points out that the community is an important source of social innovation in the city, and the residents in the community are an important innovation force[8].

There are 20 important publications, which are ranked as *Decoration*, *Packaging Engineering*, *Design* and *Creativity and Design* according to the number of citations. *Packaging* Engineering published the most articles.

#### 4. A Summative Analysis of Hot Issues and Trends in Research

Compared with other design disciplines, social innovation design has a stronger interdisciplinary attribute. By clustering the keyword co-occurrence network, it can be found that hot issues are concentrated in public social life based on service design and sustainable design, such as rural revitalization, education equality, population aging, intangible cultural heritage inheritance, smart communities and other hot issues. Research and design educational reforms with corresponding design strategies.

Judging from the results (Figure 3) of the emergence of keywords "fuzzy evaluation", "social kitchen", "youth apartment" and "community collaboration" continued from the outbreak in 2005 to the end of 2009; "community building", "service design", "social design", "Innovative Design" broke out around 2018, especially "Social Design", which has continued to this day.

Top 8 Keywords with the Strongest Citation Bursts ursts

| Keywords Year Stree     | ngth Begin | End              | 2005 - 2022 |
|-------------------------|------------|------------------|-------------|
| Fuzzy evaluation        | 2005       | 2.57 2005        | 2009        |
| Social kitchen          | 2005       | 2.57 <b>2005</b> | 2009        |
| Youth apartment         | 2005       | 2.57 2005        | 2009        |
| Community collaboration | 2005       | 2.52 2005        | 2009        |
| Community construction  | 2005       | 2.37 2018        | 2019        |
| Service design          | 2005       | 2.52 2019        | 2020        |
| The social design       | 2005       | 1.68 2019        | 2022        |
| Innovative design       | 2005       | 1.5 2019         | 2020        |

Figure 3: Keyword Emergence Diagram of Social Innovation Design

The following are the top ten most cited articles: "Community and Network-Based Design and Social Innovation", "Happiness, Lifestyle, and Social Innovation: Design Strategies for a Sustainable Society", "Designing for Social Innovation in China - Possible Preliminary Exploration on Sustainable Lifestyle and Product Service System Design", "Medical and Health Service Design for Digital Social Innovation", "Social Innovation Research from the Perspective of Participatory Design", "Active Design in the Age of Transformation", "Community and Network-Based Design and Social Innovation-From UCD to CCD", "Research on Service Design Based on People's Livelihood Needs", "Community-based Cultural Innovation: New Channel Design and Social Innovation Project", "NICE 2035: A Design-Driven Community-Supported Social Innovation Experiment". From this, we can see that most of the articles start from the two dimensions of sociology and design, and establish the methodology of design innovation on the basis of the practice of serving the society, so that design can gain social recognition in a more tense structural form.

By combing and analyzing the highly cited literature of social innovative design in China, it can be seen that the design field pays more and more attention to social innovative design. The evolution of social innovative design mainly experienced the development of design thinking -- from the leading of professional designers to the participation of the whole people; Through the transformation of design object -- from users to communities, the scope of design service object is gradually expanded. Under the background that technology drives design innovation gradually changes to design drives social innovation, social innovative design can face the difficult issues in society with innovative design thinking, which has become an important research direction in the field of design. In the process of designers participating in social innovative design, interdisciplinary cooperation is also the development trend of social innovative design. A deep understanding of social problems needs to be considered from the perspective of economics, politics, sociology and other disciplines.

#### 5. Conclusion

Design has a unique background in China, we are developing from Made in China to Created in China and Designed in China. We have reached a consensus with the government, industry and other departments. So both the already developed design industries, such as visual design, industrial design etc., and the newly developed interaction design, service design, etc., will usher in a wonderful era of original design development. Social innovation design in this context has unique

opportunities and challenges. Challenge: China's uneven socio-economic development has led to complex and diverse social issues faced by the eastern coastal and western poor regions. In advanced urban areas such as Beijing and Shanghai, social issues such as environmental protection, community development, elderly care, and education have received close attention from the government, the private sector, and relevant research institutions. On the contrary, in remote rural areas, issues such as impoverishment, hollowing out, youth education, and gender discrimination have yet to be addressed. All these issues are great challenges. Opportunity: In the times of rapid development of science and technology, information technology is constantly improving. It is possible to develop innovative solutions for solving complex problems based on a deeper understanding and analysis of the local context of the problem and the use of appropriate technological tools.

In summary, in the context of China entering a new era, how design can shift from "Made in China" into "Created in China" and how to better serve society and people is a new challenge and an opportunity for contemporary design practitioners. Based on CNKI database and data visualization software Citespace, this paper carefully analyzes the output distribution, basic characteristics and hot issues of domestic literature related to social innovation design, although the data sources are somewhat limited and foreign related achievements are not sorted out. However, given the close correlation between social innovation design and specific socio-cultural contexts, this paper will undoubtedly provide a certain reference for domestic social innovation design research in China.

## Acknowledgments

2022 Undergraduate Innovation and Entrepreneurship Training Program, Project number: 108051360022XN516.

#### References

- [1] Ezio Manzini, Xin Xiangyang, Sun Zhixiang. Creation: Social Innovation and Design. Creativity and Design, no.03, pp.4-8, 2017.
- [2] Jiang Yuhao, Chen Yongkang, He Renke. Visual Analysis of Research Progress in Social Innovation Design. Packaging Engineering, vol.42, no.24, pp.222-229, 2021.
- [3] Zhong Fang, Liu Xin. Designing for the people, with the people, and by the people: the path, challenges and opportunities of social innovation design. Decoration, no.05, pp.40-45, 2018.
- [4] Li Jie, Chen Chaomei. CiteSpace: Science and Technology Text Mining and Visualization, Beijing: Capital University of Economics and Business Press, 2016.
- [5] Gong Miaosen. Happiness Concept, Lifestyle and Social Innovation: Design Strategies for a Sustainable Society. Decoration, no.03, pp.123-124, 2010.
- [6] Zhong Fang, Ezzo Mancini. Social Innovation Design from the View of Social System. Decoration, no.12, pp.40-46, 2021.
- [7] Ji Tie, Pan Ying. Design and Social Innovation Based on Community and Network--From UCD to CCD. Decoration, no.12, pp.109-111, 2012.
- [8] Lou Yongqi. NICE 2035: A Design-Driven Community-Supported Social Innovation Experiment. Decoration, no.05, pp.34-39, 2018.