

How Does Technology Empowerment Activate the “Collaborative Inertia” of Grassroots Governance- Systematic Study Based on the Case of “Black Tea Council” in the H Street, Hangzhou

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Abstract. The modernization of grassroots governance is an important foundation for promoting the modernization of state governance. Solving the rigid dilemma faced by the current grassroots governance mechanism and activating the “collaborative inertia” of grassroots pluralistic democratic consultative governance up against technology empowerment can stimulate the activity of grassroots governance, improve governance efficiency, and enrich the theoretical connotation of state governance modernization. Based on the case of the “Black Tea Council” in H Street of Hangzhou, this paper analyzes the innovation of theory and technology in the practice process from the perspective of the choice of governance subject and the determination of management mode. It is found that technology is used to enhance residents’ deliberation ability and enthusiasm for participation, dynamically debug the logical strategy of collaborative resolution of contradictions and disputes, and strengthen the overall concept and humanistic thought of “from an entity to entirety”. Moreover, technology can also grasp the “key minority” to focus on problems and avoid technical alienation and formalism, so as to finally realize the orderly and effective solution to grassroots governance problems.

Keywords: Grassroots Governance Technology; Technology Empowerment; Collaborative Inertia; “Black Tea Council”.

1. Problem: Rigid Grassroots Governance Mechanism

With the profound changes in urban society, the community in China is gradually moving towards the center of the grassroots social management system, and the research on urban grassroots governance is also integrated into the theoretical research of community governance, which has attracted the attention of scholars. According to the Fourth Plenary Session of the 19th CPC Central Committee, requests are put forward, including “we must strengthen and innovate social governance, improve the social governance system under the leadership of the Party Committee, the responsibility of the government, democratic consultation, social coordination, public participation, legal guarantee, as well as scientific and technological support. Building a community of social governance in which everyone is responsible, conscientious, and enjoyable, ensuring that the people live and work in peace and contentment, the society is stable and orderly, so as to build a higher level of safe China”. Realizing accurate, efficient, and convenient grassroots governance has become a vital issue in public management in China at present. However, corresponding to the urgent needs of the national strategic development plan, urban grassroots governance is still facing structural and functional dilemmas, which are mainly manifested in insufficient resource integration and rigid governance mechanism, weak response-ability, and low governance performance. It can be seen that cracking the rigid grassroots governance mechanism, providing an effective grassroots governance paradigm, and studying urban community issues, that is, urban grassroots governance issues, can not only enrich the theoretical connotation of national governance modernization, but also provide a theoretical basis for opening up grassroots complex governance. It is also helpful to activate the vitality of grassroots governance and improve the efficiency and benefit of governance. It can be used as the technical

basis for realizing the linkage and coordination among national governance, local governance, and community governance, which has both practical and theoretical significance.

Summing up the existing urban community-related theoretical research, we can find that it mainly focuses on the determination of governance subjects and the choice of management mode. Besides, the main body of community governance, after witnessing “social public institutions and actors from but not limited to the government” mentioned by Gerry Stoker and the multi-center theory of community governance brought forth by Vincent A. Ostroms, the academia generally affirmed the development trend of diversification of governance subjects and also discussed the third sector participating in governance and its realization effect. As for the mode selection of community governance, it is generally recognized that it is divided into three types according to the intervention intensity of government forces and social forces, namely, the autonomous mode represented by the United States and Britain, the government-led mode represented by Singapore, and the mixed mode represented by Australia and Japan.

At the same time, since the 1990s, academia has set off an upsurge in applying collaborative governance theory to public management. According to the practice, British scholar Hookham put forward the concept of “collaborative inertia”, which classified the performance results of collaborative behavior as “collaborative inertia” and thought that it meant the ultimate failure of collaborative action. Up to now, scholars at home and abroad have discussed the causes, operation mechanism, and solutions of “collaborative inertia” from both theoretical and practical perspectives, putting forward the basic evolution logic represented by “uncertainty--criteria choice and determination (process and result) --collaborative governance (public power and factor support)”. New changes have taken place in grassroots governance practice under the guidance of emerging governance theories, among which the reform under the guidance of multi-collaborative governance theory is one of the representative attempts.

Therefore, based on the actual background of rigid grassroots governance patterns, this paper introduces the multi-collaborative governance theory and the related concepts of “collaborative inertia”, putting the theory into the community grassroots governance situation for discussion. This paper selects the representative practice of “Black Tea Council” in H Street of Hangzhou in recent years to carry out research, focuses on the two basic issues of grassroots governance subject and management mode, emphasizes analyzing the operation logic and practice of the platform to answer the two major questions of grassroots governance. Starting from the subject and mode, this paper summarizes the formation mechanism and activation mode of the “collaborative inertia” gene in grassroots governance, and sums up the experience of transforming “collaborative inertia” into “collaborative advantage” in urban community governance, which provides ideas for activating the deadlock in grassroots governance and innovating effective governance mode.

2. Connotation, Essence, and Innovation Prospect of Technology Empowerment

Digital reform is in the stage of in-depth development, and the theory of government governance is also advancing with the times. At present, the influence of digital technology on urban grassroots social governance and democratic governance model is a problem that has been continuously studied. In the early 1990s, the American government first proposed to combine the innovative application scenarios of information technology with government governance, so that the public can interact with the government “online instead of queuing”. Then, it formed the concept of democratic politics in which the public participates online. After that, the previous government governance model of “taking government departments as a single subject and functions as a single mainline” began to change. Many studies on this topic have determined the substantive connotation and basic logic of “digital technology” in promoting the reform and innovation of grassroots governance, which thinks that the government uses digital technology to promote the collaborative governance mechanism inside and

outside the government and the reconstruction of organizational power relations, pointing out that it has many limitations.

As for the interpretation of the essence of technology empowerment, the mainstream view holds that although technology empowerment promotes the effective integration of social governance resources and improves time efficiency, instrumental rationality is still the main value orientation of current digital governance. However, the current governance transition of urban grassroots society must adhere to humanism, balance value rationality and instrumental rationality, and shape the subjectivity and publicity of grassroots society. Putting technology empowerment into the context of grassroots governance, digital technology provides a possibility and interactive platform for grassroots pluralistic governance. Online governance makes public participation convenient and big data is an important issue for people's livelihood. Online and offline community mode provides multiple direct channels for residents to participate in consultation and decision-making of grassroots governance. However, it should be noted that the differences in technology, resources, and capabilities of grassroots governments, organizations, and residents as governance subjects have brought about a "digital ladder" in digital governance. Meanwhile, the standardization of digital governance processes as well as mechanisms and systems is insufficient, which may lead to a power imbalance among multiple cooperative governance subjects. For example, poverty and the elderly belong to digital vulnerable groups, and they are often blocked from digital life because of the "threshold effect" of technology in digital life. For another example, the financial payment ability of grassroots governments is different, and the functional restrictions of community departments and the restrictions on governance resources can easily lead to the imbalance between digital construction and governance development. In the digital age, digital information technology is more and more widely used in grassroots governance. In addition, the core issues of digital governance under technology empowerment coincide with the central issues of grassroots governance. Effective discussion around governance subjects and management models can help explore governance paradigms.

In recent years, governmental and non-governmental organizations around the world have set up their own online platforms one after another, from information, consultation to community consultation, and deliberation, so that policies can get different degrees of public participation from different stages of initiation and implementation. And the "Black Tea Council" can be called one of the models. The government connects the online interactive network with the offline interactive network through digital technology, reorganizing the social governance organizational structure of diversified subjects. On this basis, the government has gradually changed its traditional governance model as a single political subject, which can gather information and distribute governance resources in a more effective way. The "collaborative inertia" between the government and other multiple subjects has been broken in the governance process, and the embedding of digital technology has improved social collaborative ability. However, there are still views that the traditional online platform model is more of an experimental governance tool from the technical perspective. Although it has successfully broadened the channels for people to participate in the administration, in fact, a small number of original governance subjects have almost never delegated the final decision-making power of governance to the public, and technology empowerment and authority endowment to technology can be realized together. At the present stage of promoting the reform of administrative mechanisms and organizational structure, digital technology only tends to empower a single subject but fails to empower the public, which is not enough to solve the efficiency bottleneck of government digital governance.

This paper holds that the application of digital information technology can improve the efficiency of urban grassroots governance from the dimensions of "standardization of multi-deliberative democracy mechanism", "activation of multi-subject governance ability", and "digitalization to improve governance quality" to form a compound governance model in which digital governance and traditional emotional governance integrate. To further illustrate the value of digital multi-negotiation governance, the case study method is applied in this paper, which selects the micro-scene of

collaborative governance of the “Black Tea Council” in H Street of Hangzhou as a case sample. In addition to systematically expounding the experience and enlightenment of digital empowerment from the multi-negotiation governance model of “Black Tea Council”, this paper discusses its role in breaking through the efficiency dilemma between digital empowerment government and activating “collaborative inertia” around the governance subject and management model, and forms the optimization suggestion of double balance between humanistic value and digital tools in grassroots governance. By presenting specific cases, it provides experience reference for digital government practitioners to solve the problem of multi-negotiation governance.

3. Past and Current Situations of “Black Tea Council”

The “Black Tea Council” model was created to serve the community residents’ consultation and deliberation. It complied with the requirements of digital reform based on the successful practice and explored the corresponding grassroots multi-consultation and co-governance platform based on the street digital governance platform of “city supervisor and online co-governance”. At present, the “Black Tea Council” gives full play to the advantages of technological empowerment and three interfaces of “one cabin and two ends” have been perfected. The data cabin of the digital governance platform, the system end of the Black Tea Council, and the mobile end of the Black Tea Council are deeply coupled, so as to realize the closed-loop disposal of “public opinion acquisition--big data analysis of public opinion hot trends--automatic formation of Black Tea Council topics--holding online and offline Black Tea Council meetings--forming a co-governance plan-responding to the needs of the masses” .

Meanwhile, the “Black Tea Council” responded to two key issues in grassroots governance, that is, governance subject and management mode. Besides, this platform follows the “people-centered” governance concept, which allows residents to integrate into the whole process of governance and form a joint force with the government and society, so as to realize the benign interaction between residents’ decisions on governance issues and effective participation in the governance process, widely mobilize residents’ enthusiasm and social vitality through the guidance of party, and break through the dilemma of low synergy efficiency caused by the subjects. In addition, the “Black Tea Council” actively constructs the mode of “democratic consultation + scientific and technological support”, and creates a grassroots democratic consultation mode integrating online and offline to answer the problems of grassroots governance in management mode. Moreover, it can realize the accuracy and efficiency of grassroots governance through three data portraits of “public opinion”, “parliamentarians”, and “achievements” to activate the “collaborative inertia” from the method perspective in grassroots by means of technical empowerment. In March 2021, H Street issued the Rules of Procedure for Grassroots Consultation of “Black Tea Council”, which makes the whole process of multi-consultation platform operation more standard and scientific, and clarified the working mechanism of street functional departments and communities. It also promoted the reform of the grassroots inward governance model and avoided “collaborative inertia” caused by lack of coordination and insufficient capacity at the government level. According to the Street Work Report, as of April this year, the platform of the “Black Tea Council” has collected more than 9,000 public opinions, held 168 black tea councils, put forward more than 3,000 suggestions, and helped solve more than 300 governance problems, including environmental remediation problems left over from history and parking reform problems concerning the masses. In 2021, the “Black Tea Council” model was selected for the national *2021 Social Governance Innovation Model Case Compilation* and was actively advertised for adaptive promotion in the main urban area of Hangzhou, Binzhou in Shandong Province, and other places outside this area. Grasping the key issues in grassroots governance and exploring the basic logic and advantageous experience of transforming the “collaborative inertia” of urban community governance into “collaborative advantage” by the “Black Tea Council” are conducive to enriching the connotation of multi-consultation, co-governance, and its application in practice.

3.1 Theoretical Innovation: Solution to the Focused Contradiction of the Collaborative Concept

The party spirit of the “Black Tea Council” is to make the platform operation more submissive to procedures, more standard, and more scientific under the guidance of party building; “Tea” narrates with tea, expresses public opinion, and discusses people’s livelihood, which vividly explains the operation concept and mode of the platform. As an innovative practice of grassroots governance, the “Black Tea Council” is also a typical representative of comprehensively applying the emerging concept of collaborative governance, aiming at fully integrating social resources and mass forces to accurately focus on the deadlock in grassroots governance. Through on-the-spot investigation and visit, C1, the person in charge of the “Black Tea Council” in H Street, mentioned in the interview as follows.

“My current identity is to serve a social organization in H Street, but before as an ordinary citizen, we had a pain point that I didn’t know whom I should ask for help in the government within the community where I lived and I didn’t know how to speak out when I faced some problems that I was very concerned about, such as community construction, garbage sorting, and road reconstruction. When I participated in the consultation and deliberation of the street “Black Tea Council”, I realized that it was particularly meaningful for me to do this. We must return to the stage of community matters in the future. From the perspective of ordinary citizens, the model of the Black Tea Council can show our citizens’ right to be masters of their own affairs. If there is no right to speak or no channel to speak, I think it will be very regrettable. From the governmental point of view, this is a communication and exchange at close range, which can put things ahead.” (HCHC1202207051)

We should put the treatment of the problem before the large-scale outbreak of the problem, and bring the voices of the masses together on the platform of pluralistic consultation and deliberation. The “Black Tea Council” adheres to the theory of collaborative governance, pays attention to stimulating the enthusiasm and effectiveness of people’s participation, and introduces non-governmental organizations such as “Rainbow Bridge”, which are professional in charge of consultation and talks for standardized management. Under the guidance of this thought, six interlocking models (in Figure 1) are designed to improve the accuracy, coverage, and efficiency of consultation and deliberation. According to relevant data, up to now, the number of “councilors” stored in the online platform system has reached 1,389, and the average age of them has decreased from 65.08 years to 45.58 years compared with the offline form, which also covers two representatives and one member, representatives of social organizations, representatives of professionals, and other groups. The “Black Tea Council” put the theory of multi-collaborative governance into practice and successfully broke through the dilemma of simplification of participants in traditional deliberations, which are mostly elderly people and mainly “acquaintances”. We can open up the path of public participation in grassroots governance through digital empowerment and invite residents to conduct online deliberations to achieve “online + offline” synchronization, so as to effectively optimize the structure of participants in governance and focus on solving front-end contradictions in grassroots governance.

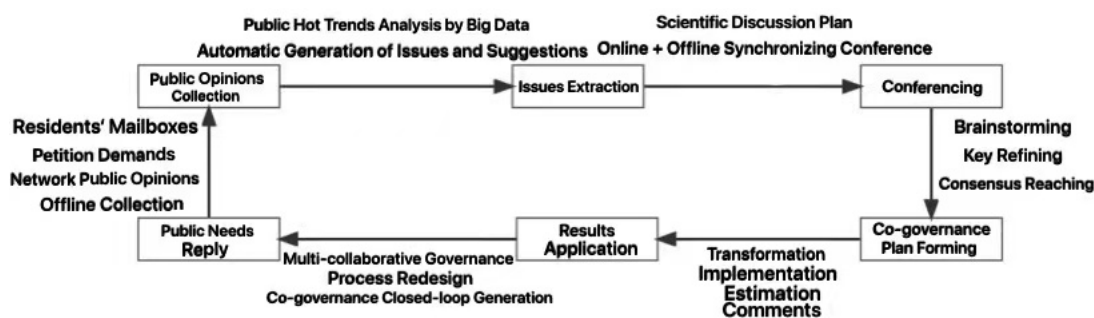


Figure 1. Operation Mode of “Black Tea Council”

3.2 Technological Innovation: “Three Portraits” Help the Return of Public Opinion

The implementation of the concept cannot be separated from the overall design of the project. On the basis of the “six closed loops” operation mode, the “Black Tea Council” makes full use of digital technology to empower the grassroots governance practice of urban communities, innovates the grassroots governance management mode of “party leading--mass participation--social assistance--government implementation”, and implements the concept of multi-collaborative governance through three data portraits of “public opinion”, “parliamentarians”, and “achievements” to effectively pool public opinion and voice to act on the governance process (in Figure 2).

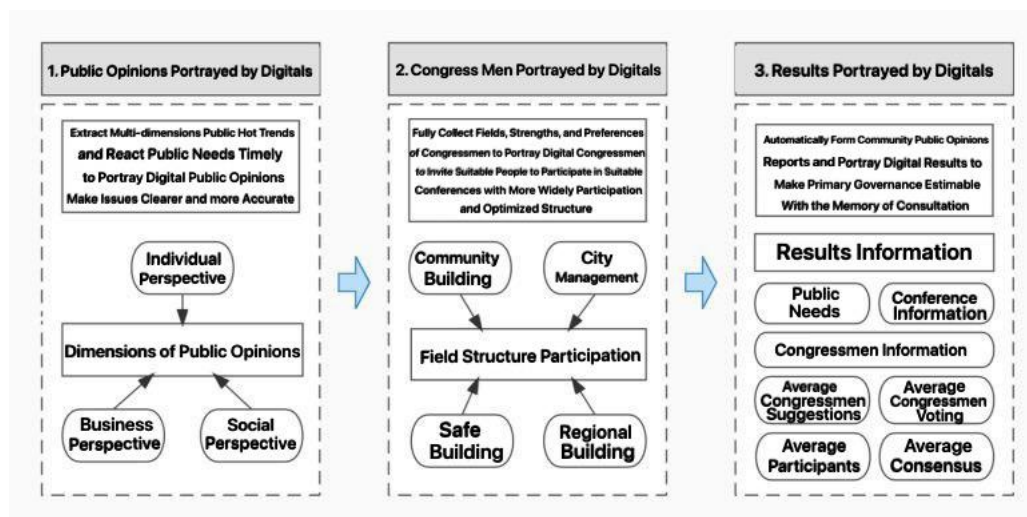


Figure 2. Concept Summary of Data Portrait of “Black Tea Council”

First of all, the portrait of “public opinion” makes full use of the H Street public opinion collection box, network public opinion comprehensive data, petition business background information, and other channels to collect topics and establish a public opinion database. Makes big data comparative analysis according to the specific contents in the database to generate public opinion heat, which lays the foundation for determining topics. At present, according to the dimensions of regional space and hot topics, the background has determined 6 categories of issues related to the vital interests of residents, with a total of 421 keywords. On this premise, the community takes the lead in convening relevant parties to carry out comprehensive evaluation and integrates professional forces such as non-governmental organizations, so that issues can accurately respond to public demands and improve the efficiency of consultation and deliberation. Secondly, the portrait of “members” relies on the “Black Tea Council 2.0” after an iterative upgrade of digital technology completes the information collection of participants on the basis of online and offline simultaneous deliberation, and establishes a back-office service center including but not limited to information such as name, age, political outlook, and issues of concern. Starting from the center to the background of the promotion of the “Black Tea Council”, according to the data such as the sign-in situation, the frequency of attending the meeting, the publication and adoption of opinions, the “portraits of the councilors” including the dimensions of concerns, special preferences, and deliberation ability were sorted out. After the release of the topic, the staff invited people from all walks of life and residents of various communities to participate in grassroots governance by sending short messages and articles publishing, so as to eliminate information barriers in collaboration and activate “collaborative inertia”. The “deliberators” who are highly matched with related topics in the portrait library will be invited by the platform in the form of deliberation links, intelligently send orders to the most suitable personnel, grasp the key issues and key actors in collaborative governance, and form more extensive and accurate mobilization conditions. Thirdly, the portrait of “achievements” is a key measure to form a full closed loop of the deliberation process. Statistics are made on the number of grassroots democratic consultations and deliberation in each community transformed into governance policies. Furthermore, the actual promotion of each grass-roots community is announced in a timely manner, and residents’ online meeting evaluation,

application suggestions, evaluation feedback, and other information are registered, so as to strengthen the tracking of meeting results, ensure that residents understand the deliberation, and continue to deliberate effectively. C2, a staff member of Xiaohe Street, said in an interview as follows.

The portrait of ‘results’ can be easily obtained for a period of time, such as problems including which topics are most concerned by ordinary people, how many people are willing to participate, how many people have expressed their opinions and suggestions, which are adopted, and how relevant functional departments and communities are implemented. Relevant information will clarify the results and finally form a complete result briefing.” (HCHC2202207051)

Behind the formation of the results briefing, it is more important to show the “transformation, landing, evaluation, and feedback” of the deliberation through the results portrait. Through traceability and evaluation feedback, the enthusiasm of residents to participate in deliberation is protected, and a two-way harmonious interaction between “staff and community residents” is formed, so as to establish multi-consultation and co-governance on a relatively perfect and solid foundation.

4. Break Through the “Collaborative Inertia”: Situational Governance Logic of the “Black Tea Council” in H Street

H Street creatively introduces digital technology into the whole process of grassroots collaborative governance, forming the unique advantage of activating the “collaborative inertia” of grassroots governance with technology empowerment, which is conducive to perfecting the multi-agent consultation and co-governance mode of “one core with diversity”. By rationalizing the logic and mechanism of community grassroots collaborative governance, revitalizing the enthusiasm and wisdom of social resources to participate in governance, and standardizing the operation and development of community grassroots digital governance, we can overcome the fragmentation of grassroots collaborative governance, increase the efficiency of grassroots governance, realize the multi-field integration of resources inside and outside the community, and promote the participation of all sectors of society in the whole process.

4.1 Strengthening and Improvement of the Deliberation Ability of Residents in Technology-Empowered Communities

Community construction is a process of reconstruction of grassroots society with various demands promoted by the government. It tries to integrate community forces and resources under the leadership of the Party and the government, solve community problems, and promote the coordinated development of communities, so as to achieve an effective social governance process. At present, urban community governance is faced with the challenges of solidification of bureaucratic knowledge system, fragmentation of grassroots operation mechanism, and weak participation of community residents. The “Black Tea Council” model in H Street came into being under this unbalanced state of community governance coordination.

Consultation procedures are led and standardized by Party, and we pay attention to people’s livelihood and public opinion with tea chats. The success of “Black Tea Council” lies not only in providing a discussion platform for interest demands in the community governance, but also in presenting solutions to issues of concern in people’s daily life, effectively introducing community residents into the community governance system, and overcoming the government-led “one-man show” in grassroots community governance. It is also a subtle way to cultivate the awareness and ability of community residents to participate in management, perceive the process and pain points of grassroots governance in the whole process, strengthen mutual empathy and understanding, and promote the harmonious and stable development of root causes and grassroots governance. Meanwhile, the three portraits of “public opinion”, “parliamentarians”, and “achievements” correspond to the three steps of returning issues to public demands, allowing citizens to participate in the governance of their concerns, and allowing the society to assist and supervise the implementation of collaborative governance achievements. Through keyword extraction technology, public opinion

data is gathered and converted into public opinion heat to further transform corresponding issues and respond to realistic demands, so as to open up the two-way interactive context of “public-government” and effectively supplement the national governance system. Community residents and forces from all walks of life attended the meeting together, so that the convergence of multi-voice could replace the “forehead clapping decision” on the desk, fundamentally overcome the subject simplification of “collaborative inertia”, and enable grassroots people’s livelihood to be implemented at the most basic level. According to the communication with C1, the person in charge of H Street Black Tea Council, once the “Black Tea Council” was implemented, it was enthusiastically participated by residents, and the group effect was formed by solving the key problems of a small number of people fanning out from point to area, so as to achieve the purpose of promoting popularity and enhancing credibility, and effectively improve the awareness of community residents to participate in governance. Technology empowerment breaks through time and space constraints, so that community residents can fill their positions in time to promote effective community governance. Community governance including residents’ participation also further stimulates their enthusiasm for deliberation in the process of effective implementation, and finally builds a virtuous circle of “residents’ participation--effective governance”, which enables grassroots democracy to be implemented indemnification. The portrait of the results helps to improve the closed-loop mechanism of the whole negotiation process, timely information publication, and dynamic results updates to bring residents into various fields of grassroots governance independently or involuntarily. C1, the person in charge, said that residents feel the standardized process of grassroots governance while receiving the promotion feedback. The implementation of scientific and effective programs enables residents to understand the different interests of various parties and the resource constraints of functional departments and parties. Residents’ ability to deliberate and suggest has been improved in the communication and feedback, and they can perceive that the results obtained through the joint discussion of residents’ society after many deliberation meetings can have more practical effects.

Mass autonomy has received timely feedback and effective implementation. A governance community in which everyone participates, takes responsibility, and enjoys can be formed through government and social coordination. H Street adheres to the “people-centered” governance concept to create a grassroots democratic consultation scene of “Black Tea Council”, which creatively provides opportunities for multi-subject communication through technology empowerment, stimulates the wishes of the masses to fully express, improves the ability of the masses to discuss effectively. In this way, achieving a win-win pattern of two-way interaction between gathering people’s wisdom and enlightening people’s wisdom is an effective return to the requirement of “promoting the modernization of national governance system and governance capacity” put forward by the Third Plenary Session of the Eighteenth Central Committee of the Communist Party of China.

4.2 Dynamic Debugging of the Logic and Strategy of Collaborative Resolution of Contradictions and Disputes

Based on the core content of community construction and the basic connotation of multi-collaborative governance, it can be concluded that negotiation process is the core essence of grassroots collaborative governance. Therefore, in the ideal state of the negotiation and decision-making, collective participation and equal expression should be presented, and the concrete analysis of community governance issues should be carried out scientifically and effectively. The reasonable solution mode to contradictions and disputes in governance lies in building a dialogue mechanism according to the specific circumstances of the background and causes of contradictions. Let every stakeholder participate effectively and have equal rights to feedback on their own preferences and demands, and then every stakeholder can track the construction situation in real-time and make dynamic and timely adjustments after the decision with the color of interest balance is issued. Therefore, the design innovation of the “Black Tea Council” platform is integrated with technical means. Version 2.0 adopts the “online + offline” dual-track driven negotiation and deliberation mode, effectively adjusting the participation dilemma of community residents and relating personnel across

time and distance. The traced negotiation record mode provides a support basis for follow-up policy promotion and adjustment, and the closed-loop supervision and implementation mechanism provides a reliable platform for people's voice feedback and challenges. At present, more than 3,000 suggestions from the masses have been collected in 169 black tea councils held in public. After democratic voting and follow-up promotion and tracking by relevant departments, the logical strategy of dynamic debugging of collaborative resolution of contradictions and disputes has been basically straightened out, with more than 300 governance problems solved reasonably.

Through the interpretation of the published conference briefing and staff interviews, it is not difficult to find that one of its dynamic debugging logic lies in the integration of the learning mechanism. Besides, in the face of solving similar problems in the past, targeted transformation and promotion are carried out in experience learning and retention. Learning from past experience to solve practical problems is an important purpose in constructing digital scenes of deliberation. The collaborative governance disclosed in the platform break through the communication barriers of various communities in the streets. From the discussion and results of parking methods in "old communities" such as Redbud Home, Guangxing New Village, and Hexin South North Garden, it can be seen that the promotion of "Black Tea Council" not only spreads out the content of the community governance in all directions, but also pays attention to the summary and study of its own vertical experience. In view of the discussion and solution of similar problems in different communities at different times, by analyzing the commonness and individuality of its negotiation results, it is not difficult to find that the "Black Tea Council" does not follow the consistent model treatment in solving similar issues, but pays attention to the continuity of basic concepts and the practical operability of specific problems analysis, releasing the effectiveness of collective wisdom of the masses and promoting the sustainable development of negotiation operation.

In addition, the dynamic debugging logic of the "Black Tea Council" for collaborative resolution of contradictions and disputes is also reflected in the scientific summary, which reflects the dynamic nature of collaborative solutions based on the dynamic development under a certain process. C2, a staff member of Xiaohu Street, mentioned in an interview as follows.

During the three-year development, street workers and forces from all walks of life have jointly summed up the Rules of Procedure for Grassroots Consultation of Black Tea Council (Trial), which makes them a very perfect working mechanism. (HCHC2202207052)

The "Black Tea Council" has become a standardized and convenient platform, successfully connecting mass participation with process governance dynamically. Scientific operation is an effective measure to help overcome the "collaborative inertia" from staff to community residents, and promote its basic operation logic from "being able and dare to question" to "precise and effective question", and then to "reply questions", so as to effectively improve people's sense of well-being. In this practice, the skeleton of the democratic consultation mechanism is constructed by means of rule of law, and the operation of the whole process is scientifically standardized, which provides a strong guarantee for the flexibility of consultation content and the dynamics of results.

4.3 "From an Entity to Entirety": Integration of Humanistic Thought in Grassroots Governance

In the past, most of the community governance was simply carried out by the government, including the discovery of community problems, the governance of problems, the feedback of governance results, and other processes, which were fully controlled by government departments. However, due to the heavy work of grassroots governance and the prominent trend of diversification and decentralization of public needs, it is difficult to provide accurate demand responses in grassroots governance. Investigating streets responds to the call for digital reform of national grassroots governance. On the one hand, it drives groups to participate in grassroots governance, makes people's livelihood affairs return to the people, conducts accurate consultations on contradictions and disputes, and strengthens communication and understanding of the overall construction of the community; On the other hand, it summarizes the individual problems raised by the masses, sums up the common

problems for centralized and preventive treatment, injects humanistic thinking into grassroots governance, and balances the common and individual problems of governance subjects.

Technology empowers people to participate “from an entity to entirety”, which refers to overcoming the current phenomenon of overall community decentralization, returning the overall community governance to its essence through technological empowerment, ensuring that multiple subjects participate in community governance together, paying attention to the masses as a whole, and making the handling of affairs and the investment of resources truly take from the people for the people. The “Black Tea Council” in H Street collects public opinions on the street digital platform on the topic of confirmation of community governance, collects keywords of matching topics through big data technology, and then implements the representativeness of topics by multiple parties, so that “what to discuss” is decided by residents themselves, which improves the enthusiasm of residents to reflect problems. In the deliberation of community governance, due to the limitation of time and space, some residents can’t participate in the deliberation in time, in order to avoid the situation that “minority represents majority”. Under the condition of taking the epidemic situation as an opportunity, relying on the WeChat official account of H Street, the micro-scene of “Black Tea Council” was launched, so that the related matters discussed were presented in real-time on the mobile phone, which fully guaranteed the residents’ participation. Residents of H Street can see in the function of “Black Tea Council” that the meeting status of concerned topics is in progress, in follow-up or completed, so that residents’ information can be obtained in a timely and effective manner to facilitate follow-up governance. Similarly, you can see the generated conference briefing by clicking on each topic meeting, including 11 modules such as “event theme”, “purpose”, “participant”, “host”, “meeting scene”, “selection record”, “summary content”, “consensus item”, “corresponding measures”, “landing mechanism”, and “progress release”. The specific situation of the meeting is shown openly and transparently, clearly presenting the opinions and voting, publicizing the consensus reached, and accepting feedback. In addition to conforming to the principle of openness and transparency in the construction of digital government, by activating the whole process of community public participation in problem handling and effectively connecting with the existing administrative process, the pressure of cost loss caused by the dispersion of problems in grassroots governance is reduced. At the same time, problems such as untimely problem discovery and unfulfilled solution results are avoided, thus boosting accurate governance. Generally speaking, digital empowerment, to a great extent, through the guarantee of the right to speak and infrastructure, activates the forces of multiple parties and brings them into the links of grassroots governance, realizing the reorganization of community governance from original fragmentation to integration, and providing accurate demand response to the greatest extent.

Technology explores commonness activated “from an entity to entirety” of governance, which is sublimated from the overall collaborative governance, paying attention to the general and individual problems in grassroots governance. H Street uses the “Black Tea Council” to complete the whole layout of the grassroots governance system. Starting from the individual problems collected systematically, this paper summarizes and excavates the community public problems that may exist or already exist in the individual risk problems, and takes precautions against them, so as to enhance the sense of collective belonging and ownership of community pluralistic governance subjects. Taking the issues related to children’s education under the background of the completed “double reduction” policy as an example, a community-led assessment after the background system extracts some residents’ opinions. Grassroots administrators carry out a comprehensive evaluation online and offline to explore the universality and commonality of educational problems in community residents’ lives. Therefore, relevant symposiums are held to find governance methods for the community to help residents raise children, so that education problems can rise from individual problems to common problems in the multi-consultation at the grassroots level. Besides, the commonness and individuality characteristics of grassroots problems can be effectively used to deal with problems at the front end. From the perspective of community residents, this behavior reflects the “people-centered” governance principle of grassroots governance personnel, which helps promote residents’ sense of

identity with grassroots governance and their enthusiasm for participating in grassroots governance. From the perspective of grassroots administrators, the comprehensive evaluation gives the right to review issues to administrators, which avoids the monopoly of technology on governance issues. At the same time, it enables staff to strengthen their awareness of governance content and improve their initiative in governance. Therefore, the solution to the public risk problem, which is extended from the individual risk problem, not only makes the community a more closely connected whole, but also provides a new idea for all employees to participate in grassroots governance. However, the topic is generated mainly by automatically capturing the keywords of people's opinions and actively matching the keywords of governance through artificial intelligence technology. Recommendation generates the popularity of public opinion, and the key to generating the popularity of public opinion lies in the frequency of keywords, the lack of technical intelligence, and the neglect of listening and mining low-frequency risks due to mechanized expression. The problem of low-frequency risks may not have the urgency in time, but it is impossible to confirm whether it is of defacto importance. It can be said that the current technology not only promotes the precision of grassroots governance, but also blurs its true effectiveness. Therefore, grassroots governance should not only innovate its characteristics through digital empowerment, but also enhance the comprehensiveness of technology or ensure that the "people-centered" governance principle is avoided from technology alienation by improving the governance mechanism.

4.4 "Key Minority": Revision of the Basic Framework of Grassroots Governance

In the traditional grassroots social governance system, the path of "valuing government--neglecting society" still exists. The government basically grasps all fields and links of social management, and its focus is out of touch with people's needs. People's participation is more at the primary stage or auxiliary level, and the main role is not effectively played. The low participation rate of people in governance is partly due to the limited resources of grassroots governance and insufficient supervision and feedback on governance effects. "Key minority" refers to the path existing in the governance system that can greatly improve the governance quality and efficiency of grassroots governance. Taking the path of "key minority" as the starting point, it is the only way to innovate the characteristics of grassroots governance to build an innovative mechanism of community governance in the whole process. Taking the "Black Tea Council" in H Street as an example, the two modules of "digital empowerment to achieve targeted supply and demand" and "digital empowerment closed-loop problem solving" were incorporated into the grassroots community governance system, breaking the traditional community governance model with the innovative path of "key minority", revising and creating a new model of grassroots democratic consultation.

In the module on digital empowerment to achieve targeted supply, "Black Tea Council" pays attention to the rational use of public opinion and also needs to avoid the problem of "hot search kidnapping". H Street breeds the problems and directions of governance from the opinions of the masses in the practice of multi-consultation at the grassroots level. Through big data technology, six categories and about 400 keywords are determined in advance according to multiple dimensions such as people's hot concerns. Automatically collect and extract public opinion data through multiple channels, compare public opinion keywords to generate recommended public opinion popularity, and then grassroots administrators call on multiple parties to conduct online and offline related research to discuss and determine issues. The platform of "Black Tea Council" makes full use of big data technology to perceive public opinion, fits people's diverse needs through digital technology, and conducts diversified research within the scope of technical effectiveness to confirm the rationality of issues, which avoids ineffective formal deliberations and enables people's needs to be responded accurately in time. However, because the key to generating recommendation popularity by big data technology lies in the search frequency of keywords, there is the possibility of "hot search kidnapping", that is, when a resident's demands are expected to be taken seriously, the demands can appear on the hot search list by using the network to pull people's heads to search, so as to satisfy his own demands. Therefore, digital empowerment not only helps target the needs, but also brings new

challenges to grassroots governance. Grassroots administrators should avoid the “hot search kidnapping” by upgrading technical means or innovating governance mechanisms, so that grassroots multi-consultative governance can be bred from public opinion and born out of public opinion.

In the module of digital empowerment closed-loop problem solving, “Black Tea Council” adheres to the pragmatic orientation of problem-solving, and inevitably needs to avoid the phenomenon of “new lazy politics” caused by technology dependence and path dependence, refusing to hand over all the work of grassroots governance to technology and becoming a slave to technology. The grassroots governance model before digital empowerment has time lag and process complexity in the mechanism of obtaining opinions from the masses. Constrained by the disadvantages of the traditional mechanism, people’s enthusiasm for reflecting on problems is often hit. Compared with the grassroots governance model after digital empowerment, the function of reflecting community risks online solves the disadvantages of the traditional mechanism of obtaining opinions, simplifies the process of people reflecting on problems, and helps improve people’s enthusiasm for participating in public affairs. Through the technical means of digital empowerment, deliberations are conducted from online and offline levels respectively, and offline deliberations are synchronized online through technical means. Due to limited time and space conditions, deliberators can participate in check-in, submission of opinions and suggestions, intentional voting, and result evaluation online. Thus, the meeting finally reaches a consensus based on the opinions collected online and offline. The mode of combining online and offline provides a new path for the deliberators who do not have objective participation conditions, embodies the principle of “taking the masses as the center” in grassroots governance, and guarantees a practical participation path for the operation of the multi-negotiation mode. At the same time, the current grassroots governance resources are limited and the staff work is complicated. There are some loopholes in the supervision and feedback of grassroots governance personnel on the governance progress and governance results, which cannot effectively guarantee the continuity of negotiated governance. Therefore, we should give full play to the mass forces closely related to grassroots governance and have a clearer grasp of the progress of governance in daily life. Moreover, we should evaluate the governance results as more representative and use the information reflected by the “key minority” to make the resource input of governance institutes more open and transparent, and make grassroots multi-consultation governance more efficient. The “Black Tea Council” relies on the digital platform to provide the masses with the function of commenting on describing the current progress or evaluating the governance results in the “Progress Release” module. Integrate and utilize the neglected resources at the grassroots level from three levels, that is, “getting opinions”, “participating in deliberation”, and “feedback of results”, so as to promote the implementation of governance work with the utmost sincerity and problem orientation, so that the grassroots governance work is based on a more solid and feasible operational framework.

5. Conclusion

Maintaining the integrity of the community to adapt to the changeable contents of public affairs, and then ensuring the integrity expression and guarantee of public interests, is the key issue to realizing the modernization of grassroots governance in the future. “Black Tea Council” and its similar new technology governance tools can maximize the motivation and ability of community residents to actively participate. Therefore, many complicated “small problems” will be treated in the form of negotiation and governance with the substantive participation of multiple subjects. It can be solved within a smaller negative impact range and provide a fruitful evolutionary experience path for similar problem resolution mechanisms in the future, including finding problems faster, solving problems earlier, handling interest disputes better, and a more effective learning community governance paradigm.

It is imperative for technology to empower community governance. With its strong technical potential and extensive group absorption capacity, its superiority is fully revealed. However, facing the uncertain future and the complex trend of pluralistic problems, we must first solve the ethical and

security problems in technology application legally and reasonably to ensure the neutrality of technology participating in specific community governance practices. At the same time, it is necessary to make detailed and systematic research on the form of technology empowerment and governance reference path, so as to fully ensure the orderly formation and healthy development of an efficient, fair, and harmonious community governance environment based on technology empowerment.

Acknowledgements

Funded by the National College Student Innovation and Entrepreneurship Training Program (Project No.: 202213021051).

References

- [1] Zheng, H. S. (2019). *New Revision of Introduction to Sociology* (5th Edition). Beijing: Renmin University of China Press, 264.
- [2] Central Committee of the Communist Party of China. (2019). *Decision of the Central Committee of the Communist Party of China on Several Major Issues Concerning Upholding and Perfecting the Socialist System with Chinese Characteristics and Promoting the Modernization of the National Governance System and Governance Capacity*. Beijing: People's Daily, 001.
- [3] Deng, N. G. (2021). Holistic smart governance: Theoretical logic and operating mechanism of urban grassroots digital governance: Based on an investigation of the practice of holistic smart governance in S Town, Hangzhou. *Theory and Reform*, (04), 58-69, 155-156.
- [4] Stoker, G. (2003). *From government to government*, Bernard Brown. ed. *Comparative politics: Notes and readings*. Beijing: Peking University Press, 17-18.
- [5] Ostrom, V. (1999). *The intellectual crisis of American public administration*. Trans. Mao Shoulong. Shanghai: Joint Publishing Company, 68-77.
- [6] Peters, B. G. (2001). *From change to change: Patterns of continuing administrative reform in Europe*. *Public Organization Review*, 1 (1), 41-54.
- [7] Qiu, M. H. (2019). *Urban community governance* (2nd Edition). Beijing: Tsinghua University Publishing House, 79.
- [8] Chris, H. (1993). Pursuing collaborative advantage. *Journal of Operational Research Society*, 44 (6), 599-611.
- [9] Zhang, Y. Q. (2017). On “collaborative inertia” and its transcendence in public service supply. *Academia Bimestris*, (06), 25-31.
- [10] Hao, D. H. & Hu, Y. (2022). Resilience governance of urban grassroots communities under digital transformation. *Chinese Journal of Social Sciences*, 005.
- [11] Habermas, J., Lennox, S. & Lennox, F. (1974). The public sphere: An encyclopedia article (1964). *New German critique*, 1 (3), 49-55.
- [12] Papacharissi, Z. Z. (2009). *The virtual sphere 2.0: The Internet, the public sphere, and beyond*. London; New York: Routledge Handbook of Internet Politics, 230-245.
- [13] Xu, L. & Qian, X. X. (2022). “Black Tea Council”: Science and Technology Empowerment, leveraging primary “big governance” with democratic consultation of “small matters” [EB/OL]. <http://zj.people.com.cn/n2/2022/0407/c186327-35211228.html>.
- [14] Xu, L. & Qian, X. X. (2021). Inciting “great governance” with “small matters”- “Black Tea Council”: New experience of “democratic consultation + science and technology support” [EB/OL]. http://www.ggzc.zju.edu.cn/2021/1217/c54165a24524_40/page.htm.
- [15] Jin, T. J. & Lu, B. (2019). Social governance innovation: A structural perspective. *Chinese Public Administration*, (12), 51-57.

- [16] Lu, F. X. (2017). The function and realization path of deliberative democracy in resolving social contradictions at the primary level-Based on the experience of deliberative democracy at the primary level in Zhejiang. *Journal of Zhejiang Party School of C. P. C.*, 33 (04), 46-52.
- [17] Tang, Y. L. & Qian, K. (2020). "Refinding residents": Experts inventing and reengineering endogenous impetus of innovating urban grassroots governance model. *Academic Monthly*, 52(01), 84-96.
- [18] Zhang, L. (2020). "Collaborative inertia" of urban grassroots governance and its resolutions. Wuhan: Master Thesis of Wuhan University.
- [19] Matthew, M. (2020). Young,. Implementation of digital-era governance: The case of open data in U.S. Cities. *Public Administration Review*, 80 (2), 305-315.
- [20] Daria, G. & Andrey, I. (2021). Digitalising city governance in Russia: The case of the 'active citizen' platform. *Europe-Asia Studies*, 73(6), 1102-1124.
- [21] Li, T. & Feng, H. X. (2022). Digital governance: Multi-dimensional perspective, scientific connotation and basic elements. *Journal of Nanjing University (Philosophy, Humanities and Social Sciences)*, 59(01), 70-79, 157-158.
- [22] Han, Z. M. (2021). Reorganization towards fragmentation of governance-grassroots governance advantages and efficiency logic led by party building. *Governance Modernization Studies*, 37(05), 80-89.
- [23] Chen, T. X., Xu, Y. Q., Song, K. Y. & Lan, Y. (2021). The two-way activation in digital facilitation of grassroots governance-A case study of Yuexiu digital government construction. *Journal of South China Normal University (Social Science Edition)*, (04), 87-100, 206-207.
- [24] Zeng, F. J. & Pan, Y. (2021). Fragmentation of grassroots governance and holistic governance community. *Zhejiang Academic Journal*, (03), 64-71.
- [25] Yang, R. (2022). The core essence, realistic dilemma, and practical path of community consultation in the new era. *Journal of Shaanxi Institute of Socialism*, (03), 18-22.
- [26] Wang, D. L. & Sun, Y. (2020). Grassroots social governance community and the "embedded" reformation of urban sub-district offices-Taking Qingdao sub-district offices reformation as an example. *Public Administration and Policy Review*, 9(05), 47-57.
- [27] Zhang, B. (2017). Research on innovation of grassroots social governance based on "Internet+". *E-Government*, (11), 30-38.