



EDITED BY YANLIU LIN
AND HONGMEI LU

Chinese Collaborative Planning in the Digital Era

INSTITUTIONS, POWER RELATIONS,
AND PUBLIC SPHERES



ROUTLEDGE RESEARCH IN PLANNING AND URBAN DESIGN



“Funded by the European Research Council (ERC) project, Yanliu Lin and her team are pioneers in capturing an emerging trend towards more collaborative planning in China. In urban regeneration, heritage protection, and environmental governance, their rigorous and grounded observations are profound. Together, they generate important insights into the nature of governance in China and related changes in institutions and power relations. This is an important and insightful book on planning, geography, and China’s development.”

Fulong Wu, Bartlett Professor of Planning,
University College London (UCL), United Kingdom

“The book offers a highly interesting compendium of contributions on the practice of collaborative planning in China. It critically examines this practice from three perspectives: institutions, power relations, and the public sphere. What makes this compendium particularly valuable is that, although the theory of collaborative planning originates in a democratic institutional context (Western planning practice), its application within China’s authoritarian institutional environment offers valuable opportunities to challenge, adapt, and reconceptualize its universal claims, thus contributing to the reconceptualization of collaborative planning theory.”

Stan Geertman, emeritus Professor of Planning Support Science,
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Chinese Collaborative Planning in the Digital Era

Chinese Collaborative Planning in the Digital Era: Institutions, Power Relations, and Public Spheres is the first accessible text on theoretical underpinnings and extensive case material on China's collaborative planning. It questions the validity of agonistic and communicative approaches and lays out a new theoretical framework for collaborative planning in China.

The book also elaborates the changing governance contexts for collaborative planning in China, including the participative and deliberative turn, and the impact of social media and digital transition on power relations and public spheres. Collaborative planning has become a practical solution to solve increasingly complex problems and the challenges of sustainability under rapid economic development. The authors present several in-depth case studies of collaborative practices in the fields of urban regeneration, environmental protection, and green initiatives in Beijing, Shanghai, Guangzhou, Xiamen, and other cities. The materials of the case studies are collected from in-depth fieldwork in China, practical experience, and online social networking sites. The book not only gives an overview of collaborative practices and policies in China but also reflects the universal collaborative planning theory and presents new research methodologies.

The interdisciplinary nature of the book makes it interesting for students, educators, scholars, and practitioners in spatial planning, environmental planning, public policy, and new media fields.

Yanliu Lin is an associate professor of Spatial Planning and Digitalization in the Department of Human Geography and Spatial Planning at Utrecht University. Her research focuses on collaborative planning, digital planning, and planning support science for sustainable urban futures. She examines how digital technologies (e.g., planning support systems, social media, artificial intelligence, and digital twins) interact with urban governance and planning processes across diverse institutional and local contexts. She is the principal investigator of the European Research Council (ERC) Starting Grant project on collaborative planning in China (CoChina). She has served as a lead guest editor for two special issues: *Digital Planning for Sustainable Urban Future in Computers, Environment and Urban Systems*, and *Collaborative Planning in the Digital Era in Planning Practice & Research*. She has also co-edited two books: *Smart*

Governance and New Forms of Collaborative Planning (The Commercial Press, 2022) and *Village in the City: Asian Variations of Urbanisms of Inclusion* (Park Books, 2014).

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Institutions, Power Relations, and Public Spheres

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and collaborative governance. In addition to her academic work, she is also active in community-engaged research. Her research examines the practice of nature-based solutions through a comparative lens, including cases such as the implementation of green roof policies in metropolitan Shanghai, China's Sponge City program, local food systems in Michigan, and urban green spaces in the Netherlands.

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Introduction

Yanliu Lin and Hongmei Lu

Collaborative Planning in China

Collaborative (or communicative) planning theory is a framework for conflict resolution in urban planning that has been widely applied to policy and practice in democratic contexts. Since the 1990s, this theory has also traveled to China, introduced by several Chinese scholars, who translated the works of Healey and Innes and published them in major Chinese journals. Academic discussion of collaborative planning quickly influenced practice, partly because Chinese planning scholars often hold multiple roles, such as academics, practitioners, or advisors to governments. Consequently, collaborative planning practices have emerged in China to address conflicts of interest and complex problems in urban renewal and environmental management.

These practices have developed against the backdrop of growing complexity, institutional changes, the development of digital technologies, and the rise of civil society. Rapid economic growth and urbanization since the reforms of the 1980s have brought mass migration, severe environmental challenges, widening inequality, and social polarization. Local governments have faced increasing social conflicts due to land appropriation, urban redevelopment, and residential displacement. In response, new national policies and legal frameworks have been established to enable deliberative and participatory practices to cope with complexity, diversity, and pluralism. Embedded in national frameworks, local governments have adopted diverse participatory mechanisms, such as co-creation workshops, to address specific socioeconomic, environmental, and spatial challenges. Yet, the boundaries of participation and deliberation are often actively shaped by the government, which permits only domain-limited and scope-limited forms of voices. Despite internet censorship and government control, the Internet and social media have opened new avenues for public debate and community-building, facilitating the formation of formal or informal civil society organizations. Civil society activism has had a significant impact on environmental management and urban renewal, including campaigns for environmental protection, cultural heritage preservation, and social justice in urban redevelopment. However, the role of civil society remains complex. Some formal organizations maintain cooperative relationships with governments to ensure their survival, while informal organizations may adopt framing strategies to shape public discourse and amplify marginalized voices.

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2 *Chinese Collaborative Planning in the Digital Era*

Collaborative planning practices in China have emerged across multiple domains, including regional planning, urban regeneration, and environmental management, and have appeared under various labels such as collaborative planning, collaborative governance, and collaborative workshops. Distinct from traditional top-down approaches, these practices are characterized by interaction among a wide range of actors, such as governments, the private sector, civil society organizations, local communities, and citizens. They seek to address complex governance challenges such as conflicting interests, social inequality, intricate property rights systems, and environmental crises. Some initiatives are initiated by governments and planners, while others arise from bottom-up approaches. Their forms and dynamics are shaped by diverse factors, including national and local policies, political systems, cultural norms, spatial conditions, and socioeconomic contexts.

Nevertheless, it would be naïve to describe China's experience as a "communicative turn" comparable to that in Western contexts. The communicative approach to collaborative planning rests on assumptions of democratic institutions, power neutralization, and communicative rationality. It has long been criticized for overlooking power differences and institutional contexts. In China, these theoretical premises become even more problematic given the authoritarian context, the dynamics of power relations, the ambiguous role of civil society, and the growing influence of digital technologies on participation and communication. While experiences in authoritarian settings differ substantially from those in which collaborative planning theory originated, they also provide valuable opportunities to challenge, adapt, and reconceptualize its universal claims.

Contributions of the Book

This book, therefore, undertakes a critical examination of collaborative planning practices in China through three lenses (institutions, power relations, and public spheres) and contributes to the reconceptualization of collaborative planning theory. It presents the main outcomes of the CoChina project "Collaborative Planning in China: Authoritarian Institutions, New Media, Power Relations, and Public Spheres", funded by the European Research Council (ERC) Starting Grant. Combining theoretical reflection with empirical investigation, the book offers both conceptual and practice-oriented contributions.

Chapter 1 provides an overview of the changing contexts and institutional transformations that have shaped collaborative planning in China. Since the economic reforms, local governments and market forces have formed coalitions to promote entrepreneurial activities, resulting in state entrepreneurialism and growth-oriented planning. However, rapid economic development has led to increasing pluralism, fragmentation, social inequalities, and environmental degradation, while top-down planning approaches have often failed to address these growing complexities. Consequently, the deliberative and participatory turn in Chinese planning has emerged as a response to the complex challenges of planning. Since the 2000s, participation has been progressively institutionalized through national and local policies,

regulations, and programs. New institutional innovations, such as co-creation initiatives and the community planner system, have sought to engage societal actors in urban regeneration and environmental management to tackle complex problems, although power asymmetries and state control remain deeply entrenched.

Chapter 2 systematically reviews how social media have transformed public spheres in China, situating them within their socio-technical and political contexts. Unlike the Habermasian public sphere, conceived as autonomous from state and market, the Chinese version has evolved within a socialist market economy and under strong state regulation. The government has adapted to the networked environment through mechanisms of censorship, propaganda, and opinion guidance, while social media simultaneously enable citizens to access information, express opinions, and form virtual communities for public deliberation. The chapter identifies four main types of online public spheres: Political public spheres, largely state-controlled and focused on legitimizing authority; counter-public spheres, where citizens and nongovernmental organizations (NGOs) challenge dominant discourses and advocate for social justice; green public spheres, centered on environmental issues; and satellite public spheres, which address livelihood concerns with less direct political confrontation. These forms illustrate both the empowerment and the constraints inherent in China's social media-driven public spheres. Overall, the chapter reveals the dual dynamics of China's online public spheres, oscillating between incremental democratization and the reinforcement of state power.

Chapter 3 revisits the theoretical foundations of collaborative planning, tracing its evolution from the communicative approach, grounded in deliberative democracy, toward the agonistic approach, which recognizes dissent and power. It reviews the debate between communicative and agonistic perspectives: The former promotes consensus and rational dialogue but tends to underestimate enduring power asymmetries, while the latter emphasizes contestation as an integral component of democratic practice but lacks procedural clarity and flexibility for application in planning practice. To move beyond this divide, the chapter proposes a broader reconceptualization of collaborative planning that engages with three key dimensions: Insights from common-pool resource studies to understand how institutional design and rules shape collective action; a multidimensional view of power that accounts for its sources, arenas, and networks; and the concepts of framing and discursive opportunities to explain how conflicts, identities, and legitimacy are constructed within digitally mediated and fragmented public spheres. Together, these perspectives advance a more contextualized and reflexive theorization of collaborative planning suited to diverse institutional and digital environments.

Chapter 4 conceptualizes collaborative planning in China as a hybrid practice that integrates authoritarian deliberation, multi-level institutional design, asymmetric power relations, and fragmented digital public spheres to address the growing complexities of planning. It argues that collaborative planning in China is primarily a pragmatic response to wicked problems rather than a democratic ideal. The chapter develops a context-sensitive framework encompassing three interrelated dimensions: Institutional design, which links formal and informal rules across vertical and horizontal levels to improve accountability and coordination; power relations,

which analyze how diverse actors (e.g., governments, markets, civil society, and planners) mobilize authority, resources, and discursive legitimacy; and public spheres, where fragmented and digitally mediated interactions shape discourse, framing, and legitimacy. The chapter ultimately calls for moving beyond Western normative models toward a more context-aware theorization of collaborative planning that acknowledges its instrumental rationales, digital transformations, and complex negotiation of legitimacy in authoritarian contexts.

Chapter 5 analyzes the institutional design of collaborative governance in China by examining co-creation in urban regeneration and the River Chief System (RCS) in water management. It compares the two cases using a five-dimensional conceptual framework encompassing participants, agenda-setting, stages of intervention, modes of communication, and the nature of outputs. The findings show that co-creation in urban regeneration employs deliberative mechanisms to engage residents, civil society, planners, and other actors in mitigating community-level conflicts, although the government ultimately controls the agenda and final decisions. In contrast, the RCS focuses on enforcing collaboration among government agencies across different levels, departments, and jurisdictions within the hierarchical party-state structure to address large-scale, transboundary environmental problems. Agendas are set by higher authorities to meet centrally defined water quality targets, while public participation remains limited to reporting issues through formal channels. The chapter offers a nuanced understanding of how collaborative approaches are adapted to distinct governance challenges within authoritarian contexts. These institutional designs enhance governance performance, mitigate conflicts, and reinforce state legitimacy.

Chapter 6 explores how citizens gain discursive power in collaborative planning through social media, focusing on the Guangzhou Big Banyan Tree controversy. Using a Weibo dataset under the “Embrace the Big Banyan Tree” hashtag, the study applies an analytical framework integrating social network, sentiment, and topic analyses to trace interaction patterns, emotional tones, and thematic structures shaping discursive legitimacy. It identifies four digital tactics that enhance reach and credibility: Cross-platform forwarding, forwarding without comments, accumulative forwarding, and posting original images. Sentiment analysis reveals predominantly neutral or mildly negative expressions, indicating affective moderation that maintains visibility under institutional constraints. Topic modeling highlights three thematic domains: The Banyan trees’ functional and ecological value, cultural identity and memory, and governance and procedural justice, through which citizens link their lived experiences to technical and accountability discourses. The case shows how alignment between discursive practices and network position enables bottom-up influence on planning debates and policy outcomes within a tightly controlled environment.

Chapter 7 examines how digital technologies reshape power dynamics in collaborative heritage governance in China. While digital platforms can broaden participation and enhance transparency, they also generate new inequalities and exclusions. Drawing on theories of collaborative governance and power, the chapter develops a multidimensional framework encompassing arenas of power

(participants, process design, content) and sources of power (authority, resources, discursive legitimacy). Using the Chongqing Old Street digital platform as a case, it shows how digital interfaces both open opportunities for engagement and reinforce existing hierarchies. The platform connects government agencies, NGOs, citizens, and technology providers through innovative tools such as heritage “claiming”, yet participation remains uneven, process design is dominated by institutions, and content is curated to reflect official agendas. Algorithmic filtering further amplifies dominant narratives, narrowing discursive diversity. The chapter calls for strategies to balance influence, reduce algorithmic bias, and strengthen citizen voice in digital heritage governance.

Chapter 8 maps out collaborative governance models of community gardens in urban China and highlights the opportunities and challenges each faces. The study is based on empirical fieldwork in Beijing and Shanghai, where community gardens have become increasingly popular for enhancing neighborhood identity, social cohesion, environmental quality, and public participation. The chapter identifies three primary governance models: State-led, resident-led, and business-led governance. While each has strengths, none alone can fully realize the potential of community gardens as a public good. State-led projects are well-resourced but lack bottom-up momentum; resident-led ones foster community engagement but rest on fragile institutional foundations; and business-led gardens must balance profit motives with broader social and environmental goals. The chapter examines how these governance forms shape outcomes such as participation, legitimacy, and sustainability, and offers policy recommendations to improve land-use legitimacy, strengthen resident autonomy, and develop tailored policies for business-led models. The study advances collaborative governance theory in the Chinese context by showing how community gardens function as place-based interventions that engage multiple stakeholders and enhance socio-ecological value.

Chapter 9 explores the role of community participation in environmental governance through the case of Sima Stream in Guangzhou. It traces four phases of engagement: Formation of community willingness, bottom-up community cooperation, empowered community participation, and institutionalized social collaboration. It shows how social capital has become a key driver of effective environmental governance. Organizations such as the Green Life Environmental Protection Promotion Association and the Sima Stream Inspection Group have evolved from voluntary actors into formally recognized partners in stream management under the RCS. These collaborations have improved transparency, reduced governance costs, and enhanced local environmental awareness. However, public participation remains largely supervisory, with limited influence on decision-making. The chapter concludes that while community participation has strengthened social cohesion and governance efficiency, deeper institutional reforms are needed to expand citizens’ roles in policy formulation and implementation.

Chapter 10 examines how collaborative governance shapes urban flood risk management in China through two community-level projects in Shenzhen under the Sponge City Program. The findings show that, although participation remains largely government-led, collaborative flood governance can emerge through three

key institutional mechanisms: Interdependencies between formal and informal institutions, proactive boundary spanners, and tailor-made solutions that extend beyond flood control. The Haiyue Community exemplifies how shared governance can evolve when local authorities and residents co-design flood management measures through workshops, thereby fostering trust and social learning. In contrast, the Xiangqi Community represents a directive, performance-driven model where participation is mostly symbolic. Comparing these cases, the chapter highlights the importance of contextual and area-specific institutional designs for effective flood governance, and advocates for a shared governance approach to developing and scaling up community-based flood strategies.

The conclusion chapter synthesizes the book's theoretical and empirical contributions, showing how it expands collaborative planning research into authoritarian contexts and illuminates the role of digital technologies in reshaping power relations and public spheres. It identifies four avenues for future research. First, studies should move beyond major Chinese cities to include smaller cities, rural areas, and democratic contexts. Second, it underscores the need for a pragmatic approach to collaborative planning, emphasizing problem-oriented, context-sensitive institutional design and attention to both processes and outcomes. Third, the growing impact of digital technologies calls for the systematic integration of informal digital participation into formal planning processes. Finally, future research should assess both the opportunities and risks of artificial intelligence (AI) in collaborative planning, linking technological innovation with accountability mechanisms to safeguard more inclusive and sustainable urban futures.

Part 1

Thinking Differently for Collaborative Planning in China



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1 Institutional Changes and the Deliberative Turn for Complexity

Yanliu Lin

From Socialist Planning to Collaborative Planning

Before we dig into changing contexts for collaborative planning, we should have a close look at the evolution of the planning system in China, which has been driven by the dynamics of socioeconomic conditions and state-market-society relations. In the socialist period, the power of the state was significantly greater than that of society, and civil society was absent (Hu et al., 2013). Urban planning was heavily influenced by the Soviet model embedded in the utopian view of the classless society and the productionist view of planned industrial growth (Wu, 2007). It was a tool to ensure the rational allocation and use of resources, materialize economic planning, and transform consumptive cities into productive cities. It focused on designing a physical layout to accommodate and arrange production and related residential development to achieve the goals set by economic planning (Wu, 2015). The state controlled the city through the influence on mass state work units, which accommodated housing, industries, and facilities. Work units played an essential role in urban development through their decision-making over land uses, and the key role of local governments was to provide the infrastructure that connected different work units in the city (Wu, 2015). Rural areas were also transformed under the collectivization of land, production, enterprises, and facilities. One of the legacies of the socialist period for contemporary urban development is the dual land system. Urban land is owned by the state and managed by city governments, while rural land is owned by village collectives. Village collectives can possess, use, and benefit from the ownership of land. Each village household can acquire a piece of residential land for self-housing, and the village collective manages agricultural land and other collective land for self-development as well as public spaces and facilities. According to the law, the sale, transfer, and lease of collective lands for non-agricultural use are forbidden. But city governments can requisition them for new developments. This dual land system has significantly affected urban planning and development in the reform and post-reform periods.

Since the economic reform and opening-up policy in the 1980s, China has transitioned from a centrally planned economy to a socialist market system. There were major changes in the political-economic sphere: The release of economic resources previously controlled by the state through marketization, the introduction

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of foreign investment, and the integration of the economy into the global production system (Wu, 2007). The central government started to emphasize the important role of city planning in 1978, promulgated the “City Planning Ordinance” in 1984, and enacted the City Planning Act in 1990 (Wu, 2015). The city planning ordinance of 1984 formalized the two-tier planning system: The master plan designated the major goals, functions, sizes, population, and land uses of the city, and the detailed construction plan identified the layout and design of buildings. These new policies strengthened the role of local governments in planning and the decentralization of economic development. There was a shift from the normative socialist planning aiming to create a new classless and communitarian environment to planning as an economic instrument and a market-oriented urban government (Wu, 2007). Municipal governments enjoyed a lot of autonomy in urban growth, while district and county governments became powerful actors in social and economic development. At the same time, the number of private enterprises quickly increased, and they also played an important role in urban development. Marketization created opportunities for local governments to form coalitions with the private sector to make profits (Wu, 2007). Due to fiscal decentralization, local governments faced an increasing gap between income and expenditure, so they sought ways of revenue maximization through collaboration with market parties. Urban planning became a marketing tool for local governments to attract investment in order to achieve the better performance of political leaders (Leaf & Hou, 2006). This was the so-called “local state corporatism” (Oi, 1992), “urban entrepreneurialism” (Leaf & Hou, 2006), or “state entrepreneurialism” in which the local government deployed market instruments and engaged in entrepreneurial activities (Wu, 2018). It led to pro-growth, in which key players from different interest groups joined forces to maximize their income and profits through urban planning, and the incomplete implementation of the master plan by local governments (Zhao, 2015). The entrenchment of private interests in local power structures and the lack of checks on regulatory abuse also facilitated informality and increased uncontrolled development (Leaf & Hou, 2006). The development of villages in urban fringes was often out of the control of municipal governments. During the rapid urbanization process, the city government often requisitioned farmland of the villages, while leaving some of the land such as residential areas and collective land for self-development under the control of villagers. In fast-growing cities such as Guangzhou and Shenzhen, villagers illegally constructed their housing to accommodate rural migrants, and their village collectives transformed collective land into outside enterprises and individuals. This process led to the formation of urban villages, where there were large amounts of informal housing and industrial and commercial buildings with incomplete property rights (Lai et al., 2014).

Since 2000, blueprint planning has been criticized for a lack of flexibility, time-consuming authorization procedures, and not meeting the development demands of investors (Zhao, 2015). Planning in the reform period was ineffective in controlling development, as evidenced by increasing illegal construction and urban sprawl (Wu, 2007). Thus, strategic planning was introduced at the regional and

city levels to promote local economic growth, emphasizing strategic statements, visions, actions, and development projects. Project-based urban design through (international) consultation and design competition became a popular and effective method of improving urban image in prominent areas (Wu, 2007). The shift to strategic planning also reflected the changes to more market-oriented urban development and the overwhelming inter-city economic competition (Wu, 2007). However, strategic planning was criticized for its short-term visions, insufficient environmental concerns, and the strong influence of political leaders (Zhao, 2015). The rapid economic development also caused the widening gap in terms of income, health, and education between rich and poor. This led to increasing social differentiation, isolation, inequality, and conflicts, as well as the disintegration of the sense of place and belonging (Li et al., 2016). There was a demand for new planning paradigms to address new social and environmental problems. Zhao (2015, p. 284) argues that “increasing social inequality, the environmental concerns of elites and citizens’ demands for property rights have brought new pressure to bear on the existing planning system, encouraging it to take a more collective and communicative approach”. At the beginning of the 21st century, several Chinese scholars translated and introduced the theory and practice of collaborative or communicative planning to China (Dong, 2004; Jiang, 2008). These scholars focused on the importance of consensus building, dialogue, networking, and the characteristics of collaborative planning (Cao et al., 2021). Since many Chinese planning scholars were also involved in planning practices or provided advice for local governments, the concept of collaborative planning was then quickly translated into practice. The emergence of these practices has led to a collaborative or communicative turn in Chinese planning (Cao et al., 2021; Hu et al., 2013). Yet, collaborative practices would be difficult to implement in China without the broad institutional changes and the support of deliberative and participatory policies.

Institutional Changes and the Deliberative Turn

In political science and urban studies, many scholars have debated Chinese political and institutional changes with an increase in fragmentation. The framework of “fragmented authoritarianism” was first proposed by Lieberthal and Oksenberg (1988) to understand Chinese politics since the economic reform in the 1980s. The background is the inability of institutions to adapt sufficiently to rapid socio-economic changes (Mertha, 2009). The fragmentation is caused by less coercion from political leaders, the entrepreneurial behavior of local governmental agencies, and decentralized channels of personnel management (Li & Liu, 2018). It allows policy entrepreneurs including some officials, traditional media, non-governmental organizations (NGOs), and individual activists to successfully enter the political process by adopting strategies (Mertha, 2009). However, this concept was criticized for emphasizing the fragmented side of Chinese politics but ignoring its authoritarian size (Li & Liu, 2018). In recent years, He and Warren (2011) presented

the concept of “authoritarian deliberation” to describe the recent political development. They argue that:

Authoritarian rule in China is now permeated by a wide variety of deliberative practices. These practices combine authoritarian concentrations with deliberative influence, producing the apparent anomaly of authoritarian deliberation ... Combinations of non-inclusive power and deliberative influence—authoritarian deliberation—are readily identifiable in China, probably reflecting failures of command authoritarianism under the conditions of complexity and pluralism produced by market-oriented development. The concept of authoritarian deliberation frames two possible trajectories of political development in China: the increasing use of deliberative practices stabilizes and strengthens authoritarian rule, or deliberative practices serve as a leading edge of democratization.

(p. 269)

Market-oriented economic development has led to the diversification of interests, plural values, the widening gap between rich and poor, social inequality, and fragmentation. During the urbanization process, a large number of rural migrants have moved to work in the city, but most of them have limited access to public housing and facilities in the city due to the hukou system (Lin et al., 2015). The majority of low-income migrants have concentrated in urban villages, though high-income migrants may be able to buy or rent a home in urban areas. The migration flux and the construction of gated communities in urban areas have led to the fragmentation of urban social networks, while the traditional society of acquaintances in (urban) villages has gradually disintegrated into a society of strangers (Li et al., 2016). Land requisition and profit-led urban redevelopment have also caused displacement, gentrification, and social conflicts. Meanwhile, the rise of the middle class has been accompanied by an increasing awareness about environmental issues and the quality of life. The rapid development of the Internet has also led to the formation of a networked public sphere—a new platform for public debates, social interactions, and protests. The increasing complexity made it difficult for governments to obtain all the necessary information for policymaking and solve urban problems through command and control. The top-down approach of government management countered problems, such as information misalignment and inaccurate demand forecasts. Governments could not solve complex problems without interaction and collaboration with market parties and societal groups. There was a shift from “government” to “governance”. Governments, enterprises, civil society, community organizations, and online organizations have played more and more important roles in governance (Li et al., 2016).

Governance in China emphasizes the importance of public participation. At the national level, several new policies were established to support participatory and deliberative practices to address the increasing complexity of local governance (Table 1.1). In the environmental domain, the Law of the People’s Republic of China on Environmental Impact Assessment (2002) indicated that the government

Table 1.1 National and local participatory policies and practices

<i>National policies and legal frameworks</i>	<i>Local policies and practices</i>
The Law of the People's Republic of China on Environmental Impact Assessment (2002)	• Various local policies for citizen participation
The Measure for Formulating City Planning (2006)	• Co-creation workshops or committees
The Law of PRC on Urban and Rural Planning (2008)	• The community planner system
The report of the 19th National Congress of the Communist Party of China (2017)	• Formal participatory mechanisms
The Guiding Opinions on Co-creation of a Beautiful Environment and Happy Life in the Construction and Improvement of Urban and Rural Human Settlements (2019)	• Online participatory platforms
	• Bottom-up participation

should invite experts and the public to participate in the environmental impact assessment (Li et al., 2012). In urban planning, the Measure for Formulating City Planning (2006) significantly changed China's planning system: Urban planning was changed from technical documents to public policies, and for the first time recognized the importance of citizen participation. The Law of PRC on Urban and Rural Planning (2008) further clarified that the drafts of urban and rural planning should be published and receive the feedback of the public and experts through demonstration meetings, public hearings, or other approaches. The 2008 Regulation on the Preservation of Famous Historical and Cultural Cities, Towns, and Villages was set up to encourage the participation of the market and civil society in the preservation of historical and cultural cities. Although these national policies have stipulated public participation in urban development, detailed and standard regulations to guide its implementation are lacking, providing room for municipal governments to exercise their discretionary power (Zhang et al., 2020). At the local level, provincial and municipal governments have developed various policies, regulations, and participatory mechanisms. For instance, the 2015 Guangzhou Municipal Urban and Rural Planning Regulation set up local mechanisms for public participation. First, the planning committee, which is composed of public authorities, planning experts, and public representatives, provides a deliberative platform for decision-making in planning. Second, public participation refers to the participation of citizens in the formulation, modification, implementation, and supervision of planning. The key principles of participation are information disclosure, interaction, and inclusiveness, and the participatory channels include publicity, exhibitions, questionnaires, symposiums, public hearings, and so on. Since 2017, the national government has further stimulated social governance and public participation in urban planning. The report of the 19th National Congress of the Communist Party of China (2017) proposed to create a social governance pattern of co-construction, co-governance, and sharing. It emphasized the construction of community governance systems and clarified the important role of street offices, residential committees, and residents' self-organizations in community governance. Local policies and deliberative mechanisms have then been

made to facilitate citizen participation and co-creation activities in urban and rural communities.

Deliberative and participatory practices are used by local governments as tools to obtain support, solve complex problems, and improve legitimacy. As indicated by [He and Warren \(2011\)](#), there are several reasons why Chinese political elites might adopt deliberative mechanisms. First, deliberative mechanisms can co-opt dissent and maintain social order. Second, they can generate information about society and help to avoid mistakes in policymaking. Governments can collect citizen's feedback and advice to improve policy formulation and implementation capacity. Third, they can provide forums for market parties, the number of which has dramatically increased since the economic reform. Fourth, they can protect officials from charges of corruption by transparency and inclusive deliberative decision-making. They also enable local officials to shift responsibility into the deliberative processes and thus avoid blame in difficult decision-making processes. Finally, they can generate legitimacy and reduce the costs of conflicts. [Yan \(2018\)](#) examines the political impacts of authoritarian consultation and deliberation in rural areas in Zhejiang province. He finds that both individuals' discursive experience and the level of discursive institutionalization have positive impacts on state legitimacy, such as trust in government, and satisfaction with government performance. However, the boundaries of deliberation and participation are actively shaped by the state. [He and Wagenaar \(2018\)](#) indicate that the government appeals to public reason to address and manage social conflict, but this public reason is constrained by political techniques, such as informal meetings before formal public deliberation and face-to-face house visits by local officials. Although participatory and deliberative practices have various forms, [Romano \(2018\)](#) argues that they share similar characteristics including an agenda pre-defined by the government and strong control of the government over the outcomes. To some extent, the deliberative process allows the freedom of local participants to find spaces of democratic expression, but it is highly controlled by governments through administrative power and strategies ([He & Wagenaar, 2018](#)). In urban planning, local governments initiate formal participation through online and offline participatory platforms, especially in the context of urban renewal, village upgrading, and environmental improvement. They often control this kind of participation by setting an agenda, organizing the process, selecting participants, and filtering the outcomes. Yet, bottom-up participation has also taken place, especially in the context of social and environmental injustice. [He and Warren \(2011\)](#) point out that citizens and civil society are often ingenious in organizing protests or engaging in public debates in ways that work around official controls while leveraging official rules and promises. But they also argue that governance-level deliberation such as protests, bounded petitions, and citizen forums focus on specific problems and domains, with limited empowerment. Besides, the success of bottom-up participation largely depends on whether their strategies and framing can motivate political, social, and technical resources and networks to achieve their objectives ([Zhang et al., 2019](#)).

Yet, collaborative planning is not only about the participation of citizens, civil society, and private sectors but also refers to the involvement of governments,

whose roles and relations are embedded in the Chinese political and administrative system. For instance, some scholars indicate three features of the Chinese top-down political system (Wang & Chen, 2020). First, the centralized political authority enables the national government to have overall responsibility and distribute responsibilities across different government levels and departments. Second, the party-state hierarchy empowers superior governments to appoint and remove leaders of lower-level governments based on performance assessments. Third, the cadre responsibility system is inherited from the socialist period. Other scholars apply the principal-agent theory to describe the Chinese bureaucracy system. Zhou and Lian (2020) developed a three-level principal-supervisor-agent hierarchical model: (1) the central government or provincial government as the principal; (2) the intermediate government (e.g., the regional or municipal government) as a supervisor; and (3) the lower-level government (e.g., district government and county/village government) as the agent. The principal has the ultimate authority in policymaking such as setting the incentives and performance evaluations of intermediate or low-level officials. The top-down political system and the principal-agent relation can influence cross-department, -level, and -jurisdiction collaboration, especially those that address complex environmental problems at regional levels. Hierarchical principal-agent relationships can also be used to facilitate vertical accountability in collaborative governance for water management, greenway planning, and other practices, especially. Moreover, many scholars argue that the influence of traditional culture, such as Confucianism, has an impact on public participation. According to Confucianism, the notion of duty was central, moral concerns override political bargaining processes, and harmony won over conflict (He & Wagenaar, 2018); an official was viewed as a person of integrity, who dedicated himself or herself to the well-being of society (Hu et al., 2013). Influenced by this culture, local governments may play a dominant role in formal participation, while citizens may consider urban governance as the task of governments, lacking the motivation for active participation (Hu et al., 2013).

Complex Problems in Urban Regeneration and Environmental Management

Rather than a normative approach to inclusion and equity, collaborative planning practices in China are practical solutions to address increasing complexity and wicked problems in urban regeneration, environmental management, and other domains. These problems are characterized by a high degree of wickedness due to the presence of various actors with diverging or even conflicting interests, the lack of information on the problems, and/or no consensus on the solutions (Innes & Booher, 2018; Klijn & Koppenjan, 2016). Rapid economic development and industrialization led to urban sprawl, the decline of agricultural land, and severe social and environmental problems. Since 2004, the central government has required that all developable land should be released through open auctions in land markets, and it has allocated land development quotas to local governments in order to protect agricultural land (Wu, 2018). As a consequence, some well-developed cities

encountered the problem of lacking developable land for economic growth. In 2009, Guangdong initiated the policy of Three Olds' Redevelopment (*sanjiu gaizao*), referring to the redevelopment of old villages, old urban areas, and old factors. The redevelopment of these types of land didn't require land development quotas and land auctions. This innovative policy enabled local governments in Guangdong to decide on the sites for redevelopment and give the rights to local villagers and residents to redevelop the land themselves, without land requisition which often caused social conflicts (Wu, 2018). For a long time, the redevelopment of urban villages in Guangzhou (see an example in Figure 1.1), Shenzhen, and other cities in the province had failed due to the lack of involvement of villagers in the planning process, the corruption of the collective companies, and the lack of a proper compensation scheme (Lin et al., 2015). Shenzhen is a good example to elaborate redevelopment issues. Since the establishment of the first Special Economic Zone in 1980, Shenzhen has experienced rapid urban expansion and economic growth. However, master plans and top-down development models failed to control and regulate bottom-up development in more than 300 urban villages. The redevelopment of urban villages could be halted due to the resistance of local villagers, who required higher compensation. The Three Olds' Redevelopment policy introduced a new method of land governance for urban regeneration (Wu, 2018). The redevelopment projects in urban villages of Shenzhen often include the resettlements



Figure 1.1 An urban village in Guangzhou City.

Source: Photograph by Yanliu Lin.

of villagers, an area developed by developers that can be transacted in the market, and an area for village collective assets. These projects require complex plot ratio calculation and raising development intensity above the existing standard to generate sufficient funds for redevelopment and compensation, thereby the government mobilizes villagers and village collectives to participate in the process in order to reach a consensus for redevelopment (Wu, 2018). This has led to more communicative and collaborative forms of redevelopment. However, compensation negotiations among governments, developers, villagers, and village collectives are always difficult and time-consuming. Migrant tenants are also deprived of their affordable housing without any compensation and may be forced to live in more periphery areas (Lin et al., 2015). This raises the question of social injustice and exclusion.

In recent years, there has also been a national policy for the regeneration of “old and dilapidated neighborhoods” (*laojiu xiaoxu*). These neighborhoods refer to urban residential areas that were constructed before 2000 with deteriorating housing and poor facilities. This policy is not only an intention to expand domestic consumption demand but also a practical need for urban renewal due to deteriorating conditions and the lack of public spaces and facilities in these neighborhoods (Wu, 2022). Nevertheless, the regeneration of old and dilapidated neighborhoods has countered a complex governance issue (Li, 2021). First, there are complex and fragmented land ownerships or property rights in these old neighborhoods, which were gradually developed in different historical periods. Planning in the socialist period created a compact urban morphology: The inner areas were congested, land uses were mixed, and the quality of the living environment was poor (Wu, 2015). A large number of work-unit housing were built into self-contained compounds with facilities accessible to the staff of large-scale industrial projects (Wu, 2022). The commodification of housing has taken place since the 1990s, and several types of social housing have also been provided in the last decade. Therefore, old urban neighborhoods might become hybrid forms of residential estates and housing complexity might include several types of housing, such as commodity housing, work-unit housing, and social housing. Second, the composition of the population is often complex, including both local residents and migrants. Third, it is hard for the neighborhoods to upgrade the old and dilapidated housing and public facilities themselves. It is also challenging to only depend on developers, who may not guarantee the interest of local residents due to their profit-making nature. Government support is thus necessary for regeneration activities. In the happy community campaign in Wuhan, the renewal approach was changed from large-scale demolition to incremental redevelopment, which was initiated and funded by the government rather than real estate projects or residents (Wu, 2022). To cope with complex problems, it is also essential to create participative mechanisms such as co-creation communities and workshops to enable the deliberation and negotiation of various stakeholders in the process.

Since the economic reform, environmental management has also become a big challenge. China became the world’s manufacturing center, but the rapid growth of heavy industry and urban sprawl depleted large amounts of resources and brought high pollutant emissions. China was faced with many problems in land use, air

quality, water conservation, and ecological conservation (Zhang & Wen, 2008). These problems are related to the tragedy of common pools. A common-pool resource (CPR) is a “natural or man-made resource from which it is difficult to exclude or limit users once the resource is provided, and one person’s consumption of resource units makes those units unavailable to others” (Ostrom, 1999, p. 497). CPR requires design principles such as collective choice management and conflict-resolution mechanisms to ensure its effective management (Ostrom, 1990). Yet, environmental governance in China was characterized as authoritarian environmentalism referring to a highly centralized, non-participatory governance (Beeson, 2010). The authoritarian mode of environmental governance had serious problems, such as ineffective environmental management under hierarchical bureaucracy and administrative structures, and a lack of participative and deliberative mechanisms for identifying information, problems, and solutions. These problems have led to “commanding without control” since many environmental policies and plans cannot be achieved eventually and there are many local implementation gaps (Shen & Jiang, 2021). Environmental activism has also prevailed, driven by the deteriorating environmental quality, the growing environmental awareness, the expanding civil society, and limited opportunities for public participation. Since the mid-2000s, China has experienced a wave of environmental protests against major economic development projects and the siting of polluting industries or waste treatment facilities in large cities (Steinhardt & Wu, 2016). A well-known case is the “PX project event” in several Chinese cities, such as Xiamen, Dalian, Ningbo, Kunming, and Maoming. In 2006, the local government in Xiamen introduced a mega-project—a PX (p-Xylene) producing plant to the city, and the project was approved by the national government in 2006. However, most of the related information especially the possible negative environmental impact was intentionally concealed from local residents (Cheng, 2013). In 2007, some experts who participated in the evaluation work worried about the dangers of the project, and a local professor led to make a proposal to stop the project. Nevertheless, this proposal was overlooked by both national and local governments. The proposal was then posted on the Internet and rapidly disseminated to a wide range of citizens, who then organized protests on the street (Cheng, 2013). Local government was forced to develop new participation mechanisms, such as a voting platform on the government portal called Xiamen Environmental Assessment Forum, in which citizens could support, reject, or give comments on the project (Min & Jing, 2010). The project was finally canceled due to the rejection of citizens. The emerging environmental protests indicate a rising participatory and deliberative demand among the middle class and the emergence of a fledgling version of ecological modernization in China (Steinhardt & Wu, 2016).

In recent years, Chinese authorities have made considerable efforts to speed up the environmental protection process, pursue new policies and regulations, establish environmental information disclosure systems, and institutionalize public participation in environmental decision-making. Environmental governance requires the involvement of multiple stakeholders and citizens to work together to identify problems, manage risks, and develop solutions. The recent reform of environmental governance in China has incorporated more collaborative elements in water

management and other environmental domains. Collaborative governance has become an effective approach to solving the “wicked problem” or environmental pollution that could not be handled by any singular organization due to its fragmentation and policy spillover effects (Baird et al., 2019). When bottom-up initiatives in collaborations fail due to a lack of leadership, interdependence, or value conflicts, external mandates and incentives from a higher-level authority can serve as starting conditions for collaborations (Zhou & Dai, 2023). For instance, the river chief system is a new institutional arrangement with collaborative elements to cope with water pollution control. Official leaders in the Party Committees and local governments are assigned as “River Chiefs” who are responsible for a good water environment within their jurisdictions; working mechanisms are established to enable collaborations among involved parties to achieve stringent water environmental targets (Wang & Chen, 2020). The implementation of the river chief system has led to the improvement of water quality, but the effectiveness of the system varies in different cities and different types of water pollution (Wang & Chen, 2020). This reflects the influence of specific contexts on the effectiveness of a certain mode of collaborative governance.

Experimentation and Institutionalization of Co-creation

Co-creation (*gongtong dizao*) of a beautiful environment has recently become a national movement to address complexity, conflicts of interest, the fragmentation of society, and the deteriorating environmental quality. China had thousands of years of collectivism, which was reflected in shared water management, ancestral halls as the collective spaces of villagers, and work units in the socialist period. Rapid urbanization and economic development have led to the breakdown of collectivism, social fragmentation, and conflicts between local residents and migrants. There are also complex governance issues in water management, ecological management, and other environmental domains. Co-creation activities have emerged to solve these new challenges. They may start from small practices, such as the improvement of public spaces and facilities, which are crucial to public or collective interests in urban or rural communities, and then scale up to larger projects. It is a deliberative and communicative process that engages governments, civil society, community organizations, volunteers, local residents, and other stakeholders to solve specific local problems of living environments. Co-creation is often initiated by governments who collaborate with planning experts. The interview with a planning expert in 2023 shows that co-creation activities seem to be more successful when the district government has a strong capacity for implementation and the street office has strong execution capacities and can well collaborate with local residents. Capable governments can do better since these activities involve the reallocation of resources, such as land, public facilities, money, and other common resources to make them more evenly distributed or more just. Despite the importance of governments, it is crucial to involve local communities, such as self-organizations, homeowner committees, and residential/village committees that often have active residents who support the activities and motivate other residents to

participate in the process. Co-creation may even lead to the establishment of new grassroots organizations and the importance of self-governance. It enhances urban and rural governance by motivating residents in “collaborative decision-making, joint development, joint management of construction, joint evaluation of effects, and sharing of results” (Li et al., 2016). Co-creation is one of the important institutional innovations for enabling collaborative planning practices in the Chinese context. It started from experimentation in several villages and cities and then was institutionalized through national and local policies.

Co-creation first emerged in Yunfu City in Guangdong Province in 2010, with the aim to solve the issue of insufficient budget of local governments for upgrading public facilities and services in villages (Wang et al., 2017). Compared with the traditional top-down approach, co-creation activities attracted more resources, such as social donations and volunteers to support the upgrading of the village. The concept of co-creation was then introduced to other cities, but its content evolved to fit specific local contexts. In Xiamen City, the government once took over all kinds of tasks, such as infrastructure construction, community management, and service provision. Nevertheless, there were conflicts between governments and residents in the regeneration of Shanbian village in Dongfu Town in 2010. Some residents objected to the presence of underground sewage pipes near their houses if the government didn’t provide sufficient compensation, and others refused to cooperate with the authorities if the housing decoration standards did not align with their preferences (Wang et al., 2017). The top-down approach of regeneration couldn’t work in such a situation, and there was a need for participatory and deliberative mechanisms to solve the increasing complexity. In 2013, the municipal government proposed the Beautiful Xiamen Strategic Plan, which promoted co-creation activities. Experimentation of co-creation took place in the city, engaging local residents, experts, members of residential committees or village committees, and other stakeholders to collectively solve local problems (Wang et al., 2017). The city made a special budget for co-creation projects in urban and rural communities. The projects were first proposed by local communities through deliberation and participation. They were then approved by the municipal government, and co-financed by district governments, street offices, and residential or village committees. As such, these projects could not only reflect local needs but also stimulate residents to participate in the process and collaborate with governments for problem-solving.

However, co-creation has not always had a significant impact on planning practices. In Guangzhou, the first co-creation committee was proposed by local officials and planning experts to mitigate conflicts in the micro-regeneration of the historical area—Enning Road. There were conflicts between local residents and the government and strong criticism of the previous phases of regeneration characterized by large-scale demolition. A co-creation committee was set up to engage resident representatives, developer representatives, business representatives, planning experts, local media, and government officials to deliberate problems, especially in the implementation phase. It provided a platform for them to express their emotions, report problems, and mitigate conflicts. However, the influence of the co-creation committee in this case was limited, since it did not challenge

the alliance between the district government (with administrative resources) and the developer (with financial resources), and the main decision-making was exclusive to non-governmental actors (Yao et al., 2021). The interview with a planning expert in 2023 also showed that the objectives of most stakeholders were mainly driven by economic interests rather than public interests which were crucial for the success of co-creation. Learning from experimentation, several co-creation committees or workshops were set up in the regeneration of historical areas or old communities in Guangzhou. Local policies were also established to further promote co-creation activities. For instance, the Guangzhou Housing and Urban-Rural Development Bureau issued “A Reference Guide for Co-Creation of Renovation of Old Communities” in 2022 to clarify the participant, content, and measure of co-creation. At the national level, the Ministry of Housing and Urban-Rural Development promulgated the “Guiding Opinions on Co-creation of a Beautiful Environment and Happy Life in the Construction and Improvement of Urban and Rural Human Settlements”. A related policy called the Five-Year Action Plan for Improving and Upgrading Rural Settlement Environment (2021–2025) was later issued by the State Council to further facilitate co-creation activities in rural development and upgrading. These national and local policies have led to the institutionalization of co-creation practices, and further promoted their implementation in different contexts.

The Community Planner System as Institutional Innovation

The roles of planners are essential for defining different planning paradigms. In the socialist period, planners were viewed as technical experts on behalf of the public interest (Cao et al., 2021). Since the economic reform, the role of planners was to implement the state’s normative standards, in which the average land area, population density, and the amount of services were made based on the predicted population (Wu & Wang, 2013). However, the formation and implementation of rational planning were often determined by the strategies of political leaders, who took direct responsibility for local economic growth. Urban planners might become the assistants of urban entrepreneurship, supporting development projects dictated by financially and politically powerful interest groups, such as local leaders and developers (Leaf & Hou, 2006; Zhao, 2015). The lack of public participation mechanisms and weak civil society also made it difficult for planners to advocate the public interest (Zhao, 2015). With the increasing complexity of planning practices in the post-reform period, scholars argue that the planner’s roles should be converted to organizers, coordinators, negotiators, communicators, and technical consultants (Cao et al., 2021). The community planner system has been established in several cities, such as Beijing, Shanghai, Shenzhen, Wuhan, and Chengdu to cope with increasingly complex governance issues, especially in urban regeneration at district and community levels. The municipal governments couldn’t solve these complex problems themselves without the engagement of local communities. Thus, the community planner system has been set up to mediate the relationships between governments and local communities and facilitate more communicative

and collaborative forms of planning practices. In different cities, community planners may have different names, such as community planners (*shequ guihua shi*) and responsible planners (*zeren guihua shi*). Their roles are shaped by specific local policies and institutional contexts.

In 2020, the Beijing municipal government issued the Implementation Measure for the Responsible Planner System in Beijing (trial). According to the trial, the responsible planner refers to the independent third-party personnel, who are selected and hired by the district government to provide professional guidance and technical services for planning. The geographical scopes of responsibility include streets, townships, districts, or villages. Embedded in this trial, every district makes more specific guidelines. For instance, the Haidian District formulated the Work Action Outline for the Haidian District's Street Responsible Planner. The district government set up a specific fund for this kind of planner. In each street or town, there is a street or town responsible planner team, comprised of a street or town planner, a university partner, and a designer team. The district government plays a crucial role in selecting and guiding these planners. According to the action outline, the tasks of the responsible planners include five aspects (Liu, 2020). First, they explain national policies about planning and land use to public authorities at street offices and town governments and regularly organize training for planning and construction management. Second, they do in-depth fieldwork in the streets or towns, make design proposals, and facilitate planning implementation. Third, they organize public participation, mediate conflicts, and promote community building. For instance, they arrange meetings that engage public authorities, planners, and local residents to discuss how to improve design proposals for community regeneration. Fourth, they provide professional advice on planning and design. Fifth, they guide the implementation of the projects and evaluate the outcomes. However, it remains questionable whether planners can act as independent third parties and fulfill these five roles in practice since they may work for local governments who select and employ them.

The community planner system is an institutional innovation for urban regeneration in Shanghai (Zhu et al., 2021). Previously, the municipal government consigned planning and design companies or institutes to formulate urban plans or design projects. To cope with increasing complexities and fragmentation in local communities, it devolved power to the street office, which acts as the key governmental agency in community regeneration. In 2018, the Yangpu District's government formulated the "The Implementation Measure of the Community Planner System in Yangpu District". The government has provided an annual budget to support the work of community planners. It collaborated with a local university to select 12 community planners, who were experts in planning, architecture, and landscape (Liu, 2020). They were employed for three years to provide guidance and advice for micro-generation in local communities, such as old and dilapidated neighborhoods, public spaces, community gardens, and waking systems, within a geographical area governed by a street office or a town government. However, local governments often play a leading role in practice, since they select and employ the planners and assign the projects to them. Many

planners have paid more attention to the requirements of governments and the short-term outcomes of the projects while ignoring participatory and deliberative mechanisms that need long-term efforts (Zhu et al., 2021). Besides Yangpu District, several districts have also explored the community planner system in urban regeneration. New policies were made in Shanghai at the city and district levels to support the community planning system. In 2020, the municipal government issued the Guidance on Implementing the Concept of “People’s City” and Strengthening Community-based Participatory Planning to facilitate community planning and community governance. It points out key stakeholders of community governance, including community planners, self-organizations, local residents, governmental organizations, and local officials. This policy was not only a response to the national policies on the promotion of societal governance but also a legal support for the community planner system.

Embedded in various local policies or different contexts, there are four modes of governance in which community planners have been involved (Liu, 2020). In the first type, district governments, town governments, or street offices play a crucial role in top-down arrangements and coordinating planning practices. The planners are often professionals in urban planning, architecture, and landscape, but may have limited influence due to the strong position of governments. The second type focuses on the interactive process that engages various stakeholders to understand residents’ needs and planning problems, deliberate development plans and projects, and supervise and evaluate the implementation. The community planner can be the initiator and the organizer, but they are not responsible for design and implementation tasks. The third type emphasizes the engagement of community planners who are professionals in planning and design in specific community projects. Fourth, participatory events such as design competitions are created to motivate societal actors and local organizations to develop solutions for community planning. Despite different types, the community planner system is generally promoted by municipal and district governments through policy and financial support. However, the implementation effects largely rely on the capacities and efforts of public authorities in street offices and residential/village committees, which have major responsibilities for local communities (Liu, 2020).

Conclusion

Collaborative planning practices have emerged in China to address increasing complexity, diversity, and plurality. The rapid economic development has led to urban sprawl, the decline of agricultural land, urban-rural disparities, social inequality, and a deteriorating living environment. Society has become increasingly fragmentation because of the influx of migrants into cities and the breakdown of traditional social relations in urban and rural communities. Under the strict control of farmland by the state, redevelopment has taken place in urban villages, old industrial areas, and dilapidated urban neighborhoods in many cities. Nevertheless, these areas have often encountered problems, such

as complex population compositions, conflicts of interest, intricate property rights, and dilapidated public facilities or living environments. Social protests may take place during the demolition and redevelopment processes of urban and rural communities. Environmental activism has also prevailed, driven by the deteriorating environmental quality, the growing environmental awareness, the expanding civil society, and limited opportunities for public participation. The rapid growth of heavy industry and urban sprawl depleted large amounts of resources and brought high pollutant emissions to water, land, and air. The highly centralized and non-participatory governance failed to solve wicked environmental problems. The increasing complexity made it difficult for local governments to obtain all the necessary information for decision-making. The traditionally hierarchical administrative structures were ineffective for environmental management since they lacked participatory mechanisms for identifying problems and finding alternative solutions.

To cope with increasing complexity, pluralism, and diversity, a deliberative turn has taken place in the Chinese political system, emphasizing deliberative and participatory practices in local governance. National and local policies have been made to promote public participation, community governance, co-creation activities, and collaborative governance. Practices may start from experimentation in some neighborhoods or cities and then are institutionalized at national and local levels with support policies. [He and Warren \(2011\)](#) indicate that the institutionalization of deliberation can be driven by the change in citizen expectations through the experience of deliberative engagement, but it can also be driven by public authorities' desires to retain control of political demand through scope- and domain-specific venues. They argue that this is because of "the government's concern with creating a non-arbitrary, constitutionally-regulated judicial system, the existence of which is a condition of democratization" (p. 284). They point out that the national guidelines on public participation reflect and institutionalize the principles of deliberative democracy, emphasizing equality, fairness, and openness to public participation. Nevertheless, participatory practices are often limited to some specific governance issues that are difficult to solve by governments themselves. Public officials also play a central role in deliberative democracy ([He & Warren, 2011](#)). Formal participation may be controlled or led by governments and elites through financial support, agenda setting, the selection of participants, process organization, and the purposeful choice of participation outcomes. It is crucial that local governments formulate policies and provide financial and administrative resources for co-creation activities and community planners, but this may lead to unequal power relations between governments, planners, civil society, and local residents in the process. Embedded in local policies, community planners are selected and employed by local governments to address complex local problems at the community level. It is difficult for them to act as an independent or neutral actor, when local governments play a leading role in governance arrangements and resource provision ([Zhu et al., 2021](#)). Since there are often conflicts of interest among various actors, disputes could also take place in the participatory process. Governments and community planners

may strategically use active members of grassroots organizations to mediate the relations between various actors. Yet, the continuing dissents of some actors, the impossibility of engaging all affected stakeholders, and the difficulties of solving all complex issues could lead to partial consensus and partial problem-solving in collaborative practices.

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2 Social Media and Public Spheres in China

Hongmei Lu and Yanliu Lin

Introduction

Habermas (1991) initially formulated that the public sphere is an arena of social life where public discourses can be articulated and formed. Separated from the state and the market, it is a space where citizens gather to debate public concerns (Habermas, 1991). The Habermasian public sphere is framed and structured by the operation of traditional media (e.g., print and broadcast), where journalists and public actors mediate political communication (Bruns & Highfield, 2015). Based on communicative action, this ideal public sphere is characterized by inclusiveness, equal power, public interests, and rational communication, yet many doubts and criticisms have been expressed about it. Flyvbjerg (1996) argues that it largely neglects the power difference between dominant and subordinated social groups. Rather than a singular public sphere, heterogeneous public spheres have also been identified based on group characteristics or identities, such as gender, ethnicity, race, or nationality. For instance, Squires (2002) investigates the minority group of the American Black public spheres and finds three subaltern publics in the enclaved, the counter, and the satellite public spheres.

The recent information technology development has led to “a historical shift of the public sphere from the institutional realm to the new communicative space” (Castells, 2007, p. 238). The internet and social media have created virtual spaces for public debates, social interactions, and multiple forms of communication. In particular, the open, low-cost, and accessible features of social media enable most ordinary citizens to participate in open debates (Lin, 2022). But many recent studies have questioned the existence of Habermasian public spheres in social media. Bruns and Highfield (2015) argue that social media transform the singular public sphere into a series of public spherules and micro-publics, which co-exist, intersect, and overlap in multiple forms. Public spherules address particular thematic debates and engage small groups of participants with a specific interest in the themes. In this regard, online public spheres are more complex, diverse, and segmented. Social media and the associated sociopolitical dynamics shape a pluralistic but contentious cyberspace. They differ from the ideal public sphere that emphasizes inclusive and rational communication within entire domains for

the general public (Habermas, 1991). Recently, Habermas (2022) also reflects the influence of social media on the fragmentation of the public sphere, i.e., social media facilitate semi-public, fragmented, and self-enclosed communication. Yet, these new public spheres are assumed as “freely accessible media spaces” that have been freed from “censorship” (Habermas, 2022). This assumption is mainly attuned to democratic contexts and should be questioned in its validity in authoritarian contexts.

There has been increased research interest in the impact of social media on public spheres in authoritarian contexts, where traditional media are often controlled by governments. Shirky (2011) argues that the effects of social media may be especially prominent in relatively closed or authoritarian contexts, as online discussion creates opportunities that are otherwise impossible for citizens to express their grievances and understand public opinion. Dukalskis (2017) finds that the shadow economy, independent journalism, and the internet have greatly impacted public spheres in North Korea, Myanmar, and China. Of these three countries, it is in China that the internet has the most profound impact. Previously, scholars have argued that because of the influence of traditional political culture and the specific institutional context, there is limited evidence for forming a robust civil society and, accordingly, a public sphere in China (Hu et al., 2013). However, recently scholars have observed emerging Chinese online public spheres, where civil society and citizens can debate problems of common concern and organize collective actions (Shirky, 2011; Yang & Calhoun, 2007). Still others argue that internet censorship and state control in China undermine online public debates (King et al., 2013; Lin, 2022). Some recent studies have also reflected the complexity and fragmentation of public spheres in the Chinese context. Many scholars have investigated a specific public sphere about a specific theme or topic, such as green public spheres (Sima, 2011), counter public spheres (Tong, 2015). Shao and Wang (2017) indicate that the tensions between participatory democracy, a transformation of journalism, and governmental authority are the cause of the fragmentation of Chinese public spheres. Chen et al. (2018) study traditional Chinese medicine and contend that the related networked public sphere is fragmented due to conflicting discourses, fewer efforts toward problem-solving, and few communications between groups.

Many studies are case-specific or focus on a particular public sphere in a specific discipline, such as media, politics, sociology, or environment. There is a lack of systematic study of public spheres in China, which may differ substantially from those of democratic contexts. Furthermore, the burgeoning of informal civil organizations in China in recent years also calls for more research to understand the relationships between these organizations and governments, and their impacts on the forms and features of public spheres. This study fills the knowledge gap by conducting a systematic literature review of the contexts, development, forms, and features of Chinese public spheres under the impact of social media. It contributes to public sphere theory by providing a comprehensive understanding of social media-facilitated public spheres in an authoritarian context.

Methodology

This study is based on a systematic literature review, a method that differs from traditional narrative methods in having a more comprehensive process for selecting articles (Torchia et al., 2015). The review and analysis include five steps. First, we defined the research aim as to understand the socio-technical and political contexts, characteristics, and forms of Chinese public spheres. Second, we retrieved a broad set of papers from the earliest available year of 1990–2021, as studying the whole population improves the validity of the research and can minimize sampling bias that might otherwise be introduced by focusing on only part of the population. We used the Web of Science™ Core Collection to identify the relevant literature. Web of Science delivers a comprehensive overview of the world's research output in the broad fields of science, social sciences, and arts and humanities. Using online searches, we reviewed key theories on public spheres and the impact of social media on the transformation of public spheres in democratic countries and other contexts in order to understand the state-of-the-art in this field. To ascertain social media's impact in a Chinese context, we searched the database by using different combinations of key terms such as “public sphere”, “social media”, “Internet”, “Online”, “China”; popular Chinese social media terms, including early website-based platforms of “BBS”, “Weibo”, “Blog”, “MicroBlog”, “Baidu Tieba”; mobile-phone based “WeChat”; and the more recent video platforms “Douyin” “Kuaishou”. The searches were directed to the article's title, abstract, keywords, and keywords plus. This step yielded a sample of 201 articles. Third, we screened for their relevance for our research by reviewing their titles, abstracts, and keywords. Having discarded the irrelevant articles, we were left with a total of 127, which we read closely. Finally, we also searched online to review the websites, social media, or online events under discussion in these papers to further understand the associated online public spheres.

Results

The Socio-technical and Political Context of Chinese Public Spheres

Whereas the Habermasian public sphere was triggered by the rise of a market economy and capitalism, the Chinese public sphere was facilitated by the socialist market economy reform and development in the 1980s (O'Donnell, 2019). Before that, the Chinese public sphere was only occasionally discussed in scholarly literature. For instance, Wakeman (1993) investigated the relations between the state and society and argued that what had emerged was a prototype civil society and a public sphere dominated mostly by local gentries or elites, with less government intervention or local administration. By the end of the 1980s, China was in a transition from a highly centralized planned economy to a socialist market economy. Along with the liberal ideology and pro-democracy movement in 1989, academia started to focus on the fledgling public spheres (Yang & Calhoun, 2007; Zhang, 2014).

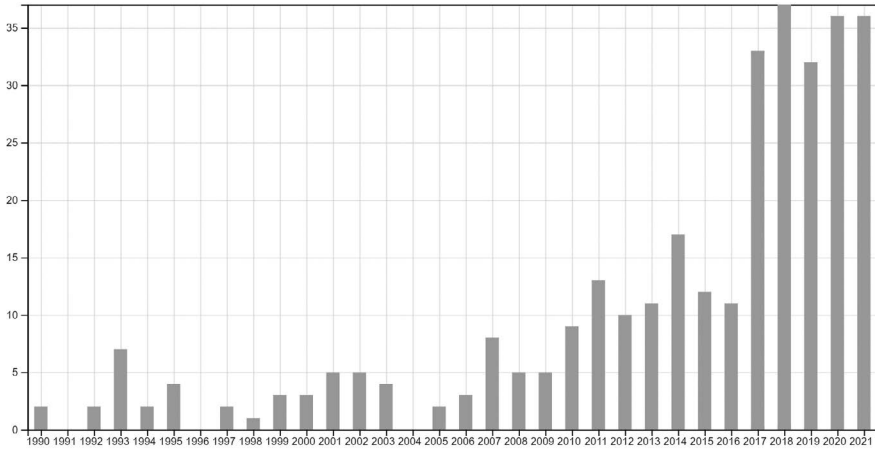


Figure 2.1 Academic research on the Chinese public sphere.

Source: Clarivate statistics based on the search results on the Chinese public sphere.

The trend in the number of records from the Web of Science largely mirrors the development of the Chinese public sphere (Figure 2.1). Before 1990, there were hardly any studies on the topic. In 1993, a symposium on the public sphere/civil society, published in *Modern China*, triggered an influential debate (Yang & Calhoun, 2007). During this fledgling phase, scholars drew greatly on the Habermasian conception of the public sphere to identify signs of nascent civil society and its attendant public sphere in pro-democracy movements. The participants in the early public sphere were mainly students, journalists, professionals, and the middle class, which shows that in the 1990s, China's public sphere was exclusionary (Yang & Calhoun, 2007).

The emerging public sphere in China was also weak because of the absence of institutionalized communication tools and public arenas (Yang & Calhoun, 2007). Traditionally, many registered, formal civil organizations, such as academic societies or industrial guild associations (the blue category in Figure 2.2), were embedded within or affiliated with government agencies and had taken on some semi-governmental responsibilities. These civil organizations, when connected with the government to different degrees, were non-confrontational (Han & Lee, 2019). To survive, they had to maintain relations and build trust with the government, substantially limiting their influence on policies and practices (Hsu & Hasmath, 2017). Although these civil organizations were sometimes critical of government actions, they maintained close and complex connections with the government, which limited their ability to act as a social force confronting state power on behalf of the public (Spire, 2011).

Since the end of the 1990s, the burgeoning of the internet and social media has triggered a new phase in public sphere development. Traditionally, Chinese media are mainly state-controlled, leaving limited room for public discussion

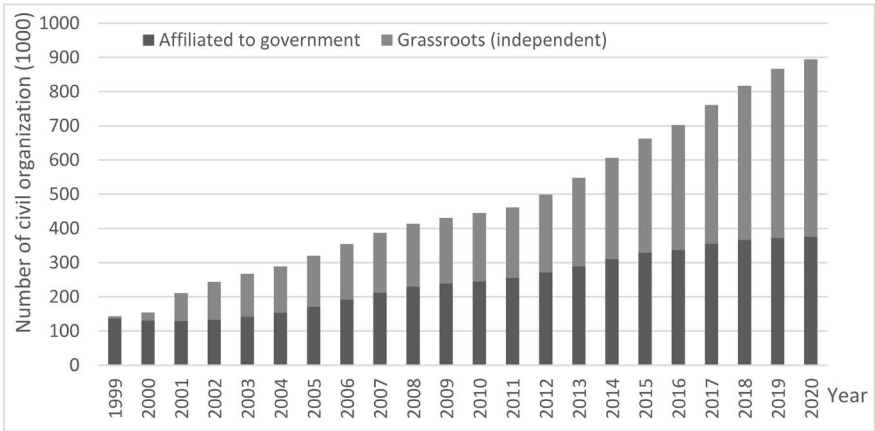


Figure 2.2 Civil organizations in China (1999–2020).

Source: Authors’ compilation based on Statistics of Civil Affairs Development (<http://www.mca.gov.cn/article/sj/>).

(Zhang, 2014). Accordingly, the majority of citizens are usually silent and inactive actors in political processes and are more submissive to the acknowledged authority. Since 2007, the internet penetration rate has increased rapidly, achieving 70% by 2020 (Figure 2.3). WeChat, as the top social media platform, had 89% of the 1.41 billion population as users by October 2021 (www.statista.com).

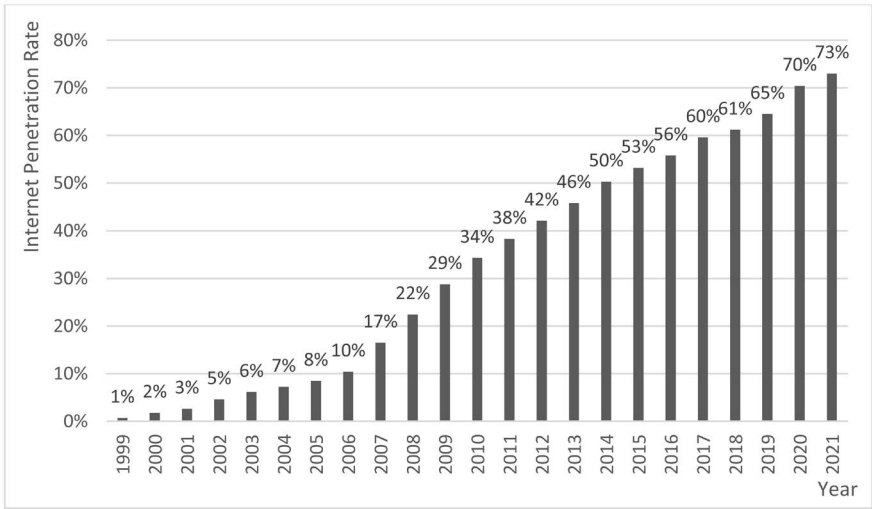


Figure 2.3 Penetration rate of internet users in China (1999–2020).

Source: Calculated by the authors from statistics from China Internet Network Information Center (<http://www.cnnic.cn>); penetration rate = netizens/total population $\times$ 100%.

Social media become effective tools for a new governance model and civic participation in public affairs. The public uses online platforms to create a voice loud enough to be heard by the government (Xing, 2012).

Along with technological advancement, policy contexts are considered important as well. The government recognized the impact of the internet and adapted to the networked environment. In 2008, the State Council announced that it would “make use of the internet as a standard method of inviting public opinions on draft laws and regulations” (Balla, 2014, p. 218). Different tiers of government play active roles in soliciting public opinions, interacting with netizens, and responding to popular sentiments. The central government also stressed collaborative governance and required uncoupling of the link between the affiliated civil organizations and the government. This created a beneficial political climate for social organizations to operate more autonomously and established a legal foundation for the development of public spheres. However, since President Xi assumed office in 2013, a new trend of tightening ideological control in all aspects has become prominent (Guo, 2018). In 2019, the central government issued a set of guidelines to manage cyberspace and tightened internet monitoring.

Despite the above-mentioned government regulation, the rise of the internet and civil society and their co-evolution have substantially facilitated the development of Chinese public spheres (Yang, 2003). Xu (2018) contends that the Chinese public sphere has been integrated into the research on civil society. Civil society benefits the development of the internet by providing the necessary social basis, while the internet facilitates the formation of civil society and its activities by offering new platforms for participation and communication. While affiliated civil organizations are required to disconnect from the government, more informal online civil organizations have developed quickly and facilitate many online public spheres. As shown in Figure 2.3, before 2000, Chinese civil society was made up of largely registered organizations affiliated with the government. After 2000, the unregistered grassroots organizations developed quickly, and since 2015 they have outnumbered the quango organizations. These emergent grassroots civil organizations are reshaping the landscape of civil society by expanding the old principles of associations and facilitating the emerging of new public spheres on social media platforms.

The Changing Public Spheres through Social Media

Social media have facilitated the changing public spheres and accordingly the changing relations between the state and society. This review identifies three interrelated changes that are crucial to understand these new relations. These three changes are interacted with each other and affect the forms of public spheres in China.

State Intervention and Authoritarian Deliberation

In democratic contexts, the public spheres that exist on social media platforms are assumed to be freely accessible media spaces without state intervention

(Habermas, 2022). Yet, the Chinese government attempts to intervene the online public spheres but still leaving some leeway for authoritarian deliberation to maintain social stability and political legitimacy (Jiang, 2009).

The state intervenes online public spheres through guiding public opinion and limiting online information (Han, 2015; Li, 2019). For the guiding aspect, the government gradually shifts the propaganda policy from a suppressive to a more proactive approach (Steinhardt, 2015), as detailed in the next section. It applies multiple measures to propagandize political ideology (Cui & Wu, 2016). One such measure is to make the official message more accessible to the general public through popular culture on commercial websites (Guo, 2018). Meanwhile, the state recruits online commentators, the so-called “fifty-cent army”, to anonymously express opinions online by producing pro-regime commentaries and guide public opinions (Han, 2015; King et al., 2017). For the limiting aspect, the government censors social media content. Traditionally, the Chinese government tightly controlled society through state-owned media, and people’s voices could hardly be heard (Zhang, 2014). In the social-media era, the government restricts the dissemination of information beyond China by forbidding the use of Facebook, YouTube, and Twitter and by controlling virtual private network (VPN) services to prevent the public from accessing foreign sites (Li, 2019). Furthermore, the government encourages internet companies to censor their users (Rauchfleisch & Schäfer, 2015). Numerous censors from the government and social media companies review netizens’ online posts and pictures, and remove those they deem inappropriate. Sensitive topics that might lead to collective actions that threaten the regime’s stability are more likely to be censored (King et al., 2017; Li, 2019). The types of content prohibited online include criticism of China’s political and legal systems, the leaking of national secrets, and anything that might damage the country’s image, threaten social stability, or that opposes national religious policies. Lee et al. (2018) argue that when most information is from domestic and internal sources, an echo chamber effect is formed, in which people encounter only the information or opinions that reflect and reinforce their own, and dissenting voices are rarely heard. They contend that this echo chamber effect undermines the public sphere, because common concerns and solutions to problems cannot be discussed or be discussed only for a short period before the spheres are shut down.

While intervening, the state leaves some leeway for authoritarian deliberation (He & Warren, 2010), i.e., the existence of various types of online public deliberation under different degrees of state surveillance (Jiang, 2009). Sensitive topics or political criticisms do appear under two certain circumstances. One is when an emergency, disaster, or epidemic forces the opening up of the public sphere, and it becomes difficult to control information. It has been suggested that external shocks may have a galvanizing effect (Yang, 2010): Examples include disastrous events such as the Tianjin chemical explosion (Wang, 2018), the Wenzhou highspeed train accident (Tong, 2015), and the outbreak of COVID-19 in Wuhan (Tao, 2021), all three of which triggered extensive discussion and public anger or criticism of the government’s performance, emergency response measures, and accountability. The other is that the central government leverages online public criticism to assess the

local governments' performance, monitor local officials, and solve local problems, thereby strengthening the legitimacy of central power (Seifert & Chung, 2009; Stockmann & Luo, 2019). King et al. (2013) analyze data from 1,382 Chinese social media websites and millions of posts and conclude that the censorship system allows the public to make critical online comments about the government but prevents posts that might mobilize the public. For instance, criticism of local governments' misconduct, such as corruption, is occasionally allowed on online platforms (Rauchfleisch & Schäfer, 2015; Stockmann & Luo, 2019). Different degrees of tolerated deliberation lead to dynamic state-society relations in virtual spaces.

Public Participation and Empowerment

Social media are a more important public forum in authoritarian contexts than in democratic regimes with great media freedom (Rauchfleisch & Schäfer, 2015). Social media enable citizens to connect and express their grievances on a scale that did not exist before. Individuals get more chances to express themselves and create value for others, resulting in a far-reaching impact on participatory democracy (Shao & Wang, 2017). However, the boundary of participation and deliberation is actively shaped by the state.

On the one hand, social media provides a new platform for informing the majority of citizens about various events through information sharing in real time (Lin, 2022). Compared with a pre-internet era when the public sphere was made up of mainly journalists, professionals, and students, social media engage more citizens. One feature of social media is mass self-communication, which is multimodal, reaches a large audience, and is self-generated in content, self-directed in emission, and self-selected in reception (Castells, 2007). In this sense, online public spheres participants are more diversified and inclusive. This has led to the changing role of citizens from passive consumers to active authors that provoke attention with their online messages (Habermas, 2022). Despite sensitive information may be deleted and censored, scholars generally agree that social media improve information accessibility and transparency in China (e.g., Lin, 2022; Shao & Wang, 2017). For instance, the controversy about genetically modified food led to substantial discussions between the pro- and anti-GMO camps, with most of the participants providing or requesting information (Wang & Song, 2020). This example shows that social media provide an open platform that empower citizens to access previously undisclosed information and to critically communicate public health issues. Furthermore, social media's capacity for connectivity also facilitates the formation of shared awareness and collective identity (Tong, 2015).

Citizens also use social media for negotiating with governments through more agonistic practices (He et al., 2023; Shao & Wang, 2017; Tong, 2015). Social networking sites make it easy for citizens to expand their networks, which break traditional social boundaries and provide access to knowledge and power (Lin, 2022). Netizens may even produce counter-hegemony discourses in which the grassroots have bargaining power against the dominant power and force the government to engage in new kinds of governance practices (Liu, 2013; Luqiu, 2018). For instance,

Sun et al. (2021) find that Qiangguo Luntan (which is a political forum hosted by the State-owned media of *People's Daily*) is a space where citizens engage in informal forms of resistance to the state through complaining and questioning public health issues. They argue that citizens challenge the legitimacy of some policies, but conform to a nationalist discourse rooted in a broader notion of public interests. Yet, these debates or actions do not challenge the regime stability and are tolerant by the central government, who use them as feedback loops to improve legitimacy and solve complex problems (Rauchfleisch & Schäfer, 2015).

On the other hand, unequal opportunities of online participating also lead to the question of the inclusiveness (as a key feature of public spheres) of social media platforms. Not everyone has an equal opportunity to participate in online platforms due to the digital divide and unequal positions in the networks. First, social media create various virtual communities or subgroups for certain topics or thematic debates, which exclude those citizens having different interests. This contributes to the fragmentation of public spheres characterized by thematic topics of subgroups. Public participation in China has limited governance-focused empowerments, favoring some domain-limited and scope-limited forms of voices (He & Warren, 2010). Second, participants are at different positions in the networks generated by social networking sites, resulting in unequal access to information (He et al., 2023). Opinion leaders may occupy more important positions online and play more influential roles in information dissemination (Shao & Wang, 2017). Strong leaders and elites can easily become power centers of the network generated by social networking sites (Lin, 2022). This challenges Habermas's (2022, p. 159) assumption that social media "radically alter the previously predominant pattern of communication in the public sphere by empowering all potential users in principle to become independent and equally entitled authors".

The Expansion of Civil Organizations and Their Roles

Civil society is essential for public spheres. It establishes the communicative connections between politics and its social environments, and plays the role of an early warning system for policymakers if it brings forth the actors organizing public attention for public issues (Habermas, 2022). In democratic contexts, civil society and the associated public sphere are assumed to be separated from the state. Nevertheless, traditional Chinese civil society can barely be independent of the state within the pre-internet institutional context. To survive, it is crucial for these organizations to develop relations and build trust with governments, which thereby limits their impact on policies and practices (Hsu & Hasmath, 2017). Thus, Chinese civil society's effectiveness is often questioned for lacking autonomy from the state, and insufficient horizontal connections with social actors (Verdini, 2015). The intensity of advocacy activities by traditional civil organizations is relatively low and varies by organizational type, degree of professionalization (Zhang & Guo, 2012).

In addition to formal, registered civil organizations, more unregistered, informal organizations have increased with the support of the Internet and social media. Such informal organizations significantly affected the landscape of civil society

in China. They are more autonomous because of procedural and financial freedom compared to their traditional counterparts. They do not have to get approval from the government and can operate more independently (Sima, 2011; Yang, 2003). Furthermore, online organization and mobilization are cheap, which also decreases their dependence on government funding. Moreover, they are able to connect with more social actors, expand their networks horizontally, distribute information, and organize online-offline interactions (Tu, 2016). The Internet blurs geographical boundaries and allows civil organizations to explore new ways to involve nationwide members in associational life (Yang, 2003). These organizations establish public social media accounts, expand their membership base through networking, and interact with their followers. Their social media public accounts release information about offline activities and invite people to join them (Tu, 2016). Online-offline integration boosts social network building and facilitates collective actions in physical spaces (Lin, 2022).

Given these advantages, online organizations as informal institutions actively launch advocacy activities or disseminate autonomous public discourses. They function as the mediator between the state and the public to some extent. They discuss, deliberate, and coordinate collective actions around shared interests despite internet censorship (Jiang, 2009). For instance, Han and Lee (2019) find that civil organizations used social media to draw attention to and question less noticeable domestic violence and to facilitate discussion regarding institutional reform, thereby influencing social attitudes and potential policy change. Likewise, Verdini (2015) contends that civil organizations play a fundamental role in counterbalancing the state's power in urban regeneration, resulting in urban governance being adapted in response to the increasing centrality of horizontal alliances between citizens and the associations involved in urban affairs. In extreme cases, civil organizations express their disagreement by organizing protests (Liu, 2013; Woon, 2011). Yet, it is too optimistic to say that these informal organizations are totally independent from the state, since the topics of discussion in virtual spaces are still under censorship. Whether they can have a real impact on practice is subject to specific contexts or topics. It is also questionable whether these organizations represent the general public interest. For instance, a recent study of He et al. (2023) shows that civil organizations and media actors strategically used social media to enhance their influence on an urban regeneration project by pushing the government to change the large-scale demolition project into micro-regeneration in Guangzhou. But they argue that informal organizations and media actors used social media to reinforce particular claims, which may not represent the full range of public interests.

Forms of Public Spheres

Bruns and Highfield (2015) argue that social media transform the singular public sphere into a series of public spherules, which co-exist, intersect, and overlap in multiple forms. Such public spherules address particular thematic debates and engage groups of participants with a specific interest in the themes. Likewise, in the Chinese context, there are also multiple, fragmented public spheres rather

than a unitary one (Liu, 2013; Rauchfleisch & Schäfer, 2015; Tang, 2007). A nexus of public spheres provides different communities with different spheres to access; topics discussed are no longer limited to those of common interest to society. Based on the literature and careful consideration of the classification criteria of main actors, features, and heterogeneous themes, we identify four main categories of online public spheres: Authoritarian, counter, green, and satellite public spheres (Table 2.1).

In classifying the public spheres, we take the following aspects into account. First, many topics discussed in public spheres are complex and likely to present features of more than one sphere. For instance, political discussions may constitute sharing of public life, or informal talks about politics become a political act (Stockmann & Luo, 2019). In other cases, when the authoritarian public spheres in China appropriate fan culture and capitalize on digital populism to engage patriotic netizens (Guo, 2018), the line between political and satellite public spheres may be blurred. In such cases, we highlight the public sphere's most prominent aspect. For instance, environmental protection issues might be discussed in both the green and the satellite spheres. However, the discussion in the green sphere is much more well-organized, intensive, and influential under E-NGO's leadership than discursive talks in the satellite sphere. Thus, we assign it to the green sphere. Second, in a few cases, some topics do have more than one equally dominant feature. For instance, the anti-PX (para-xylene) project protest is both an environmental and anti-government issue. In such cases, we ascribe it to both the green and the counter public spheres. Third, some scholars occasionally use other terms to describe specific public spheres, such as the agonistic sphere (Tong, 2015) or subaltern sphere (Tang, 2007). But such minor types are not prevalent in literature. For practical purposes, we either combine a minor type into one of the four main types as appropriate or leave it out if it is not appropriate.

Authoritarian Public Sphere

Aligning with the state intervention in public spheres, the state or state-run media appropriate social media to experiment with new modes of ideological control, consolidate authoritarian rules, and form authoritarian public spheres (Guo, 2018; Seifert & Chung, 2009). There are two types of authoritarian public sphere platforms: One of dedicated websites and the other of official social media accounts. Such platforms typically cover more political or administrative topics, disseminate pro-state discourses, and have strict censorship and limited interactions (Sun et al., 2021). The first type of platform includes the *Forum of Strengthening the Nation* ("QiangGuo LunTan"), established in 1999 and sponsored and managed by the state-run media *People's Daily* (Sun et al., 2018). The forum has the largest number of bulletin board sites on political issues in the nation (Woon, 2011; Yang, 2003), targeting government officials as well as citizens who are interested in political dynamics. A similar forum is the *Strengthening the Nation through Study* ("Xuexi QiangGuo") launched by the Party's Publicity Department in 2019 to impart political knowledge and propaganda to the public (Liang et al., 2021).

Table 2.1 Main forms of online public spheres in China

<i>Forms</i>	<i>Main actors</i>	<i>Topics</i>	<i>Features</i>	<i>Reference examples</i>
Authoritarian public sphere	State agencies or state-run media	Political issues	- Established by state agencies or state-run media - Focusing more on political topics - Stronger censorship	- Forum of Strengthening the Nation (Sun et al., 2018) - Forum of Study to Strengthen the Nation (Liang et al., 2021) - Communist Youth League's Weibo to promote the one-China policy (Guo, 2018) "Positive energy" videos on Douyin (Chen et al., 2021)
Counter public sphere	Activists: Both the public and NGOs	Social injustice, political issues, and other problems	- Conflicting interests between public value and existing rules - Expression of negative emotions - Counter to the dominant discourse - May lead to the government's concession or even policy change - Environmental activism	- Anti-rural migrants' social justice in cities (Xing, 2012) - Hepatitis B Virus carriers' forum to confront social discrimination (Tang, 2007) - Criticism of local authorities' misconduct in handling the COVID-19 (Ma, 2021) - Cultural heritage protection movement (Verdini, 2015) - Anti-PX project protest (Liu, 2013) - Artistic representations of air pollution (Johnson & Fürst, 2022) 2015 Tianjin explosions (Wang, 2018) - Discourse on climate change (Eberhardt, 2015) - Anti-PX project protest (Liu, 2013) - Healthcare reform debate (Balla, 2014) - Genetically modified food debates (Wang & Song, 2020) - IT professionals complain about overwork (Zhen, 2021)
Green public sphere	Environmental NGOs (both registered and non-registered organizations)	Environmental problems, environmental protection, and justice		
Satellite public sphere	The public, including groups of minorities	People's livelihood	Diversified yet less conflictual discourses	

More prevalent than such dedicated websites are official social media accounts intended to arouse cyber nationalism and publicize a positive image of the state. According to Media.people.com.cn, from 2012 to 2017, the number of official Weibo accounts increased from 60,064 to 171,000. [Guo \(2018\)](#) unveils how the Communist Youth League used its Weibo account to criticize a movie actor's Taiwan Independence ideology and aroused public condemnation of him, which led to his being replaced in the movie. Such authoritarian public spheres expand the state followers' base, and foster an alliance between the government and civic actionists. Besides nationalism, "positive energy" is another slogan in Chinese political discourse. After the Chinese video platform Douyin was launched in September 2016, many government agencies used this new visual platform for ideological orientation. By June 2018, over 500 Chinese governmental accounts on Douyin had promoted the government discourse of "positive energy" in videos, and the content had been viewed over 1.6 billion times with comments ([Chen et al., 2021](#)). We searched the keyword "positive energy" in the Douyin platform to find that the top three accounts have 1.86, 1.18, and 1.10 million of followers, respectively. Followers also formed separate WeChat groups for more interactive discussions. In this sense, the state is able to leverage the Douyin platform to form unique video-based public spheres.

Counter Public Sphere

Whereas the authoritarian public spheres represent the most orthodox discourses, there are counter public spheres that imply the actionists' dissatisfaction or disagreement with the dominant ideology and the government ([Xing, 2012](#)). According to [Fraser \(1990\)](#), counter public spheres are created by the subordinated groups to spread discourses counter to dominant discourses. Activists use counter discourses to formulate oppositional interpretations regarding bureaucratic establishment, governmental misconduct, or information censorship. Such public spheres have three features: (1) severe conflict of interests or values, (2) negative emotional expressions, such as anger, resentment, or distrust of the dominant discourses, and (3) sometimes the government's concession or policy change to ease the public anger.

Scholars suggest that counter public spheres have emerged in the context of power abuse, social injustice, or governmental corruption. For instance, rural migrants usually suffer from poor working conditions, low pay, wage arrears, and class discrimination in the city. [Xing \(2012\)](#) analyzes the case of a rural migrant, Mr. Wang Binyu, who, after many unsuccessful attempts to obtain the arrear wages due to him, killed four of his employer's supporters; he was sentenced to death. The resulting sympathy and anger expressed online about the social injustice of Wang's case formed an influential counter public sphere, and there was a large-scale campaign to challenge the legal decision and to attempt to rescue Wang from the death penalty. A counter public sphere can also emerge to confront social discrimination. [Tang \(2007\)](#) studied the minority group of Hepatitis B virus carriers, who are oftentimes discriminated against in education, employment, or marriage. The minority group created the GanDanXiangZhao (an idiom and pun that refers to sincere friendships) online public sphere offering mutual

support to fellow virus carriers and to counteract social discrimination. A counter public sphere may also directly target authority. Ma (2021) analyzed the WeChat snapshots exposing public dissent with the police's detention of the whistleblower, Doctor Li Wenliang, at the onset of the COVID-19 pandemic. Critical voices flooded the internet. Two trending hashtags, “#WuhanMustApologize” and “#YouMustUnderstand”, spread on WeChat and Weibo, demonstrating the public's support for Doctor Li and anger with the government's inappropriate handling of the pandemic. When the counter public spheres result in large-scale shared awareness or social unrest, the government may take the protest seriously or even change policy in response.

Green Public Sphere

A green public sphere is defined as “a public sphere of environmental discourse” where citizens and environmental NGOs deliberate on environmental problems and attempts to influence government policies (Yang & Calhoun, 2007, p. 211). Green public spheres focus specifically on environmental problems, such as air/water pollution or climate change (Sima, 2011) and features civil society's strong involvement, oftentimes activism. In some cases, a green public sphere might also be a counter sphere if it features strong antagonism. However, since a green public sphere has a clear environmental topic and may proceed in a non-antagonistic manner, we keep it a standalone category. Given all the features, the green public sphere is regarded as the first sphere in which public opinion has been seen to affect policy and is exemplary of the general development of the public sphere in China (Sun et al., 2018).

China's rapid urbanization has brought about severe environmental problems, giving rise to increasing concern about environmental management. Civil society, including environmental NGOs, plays important roles in fostering the green public sphere by actively using social media as important platforms for extensive discussions on environmental problems, circulating green information, building discourse communities, and organizing environmental activities (Chen et al., 2017; Sima, 2011). For instance, in opposing the construction of multiple dams across the Nu River in 2004, both national and local NGOs mobilized numerous activists through available media resources, workshops, meetings, and photo exhibitions, which ultimately led to the scheme being halted. Since the mid-2000s, and with the assistance of mobile phones and the internet, environmental protest has emerged from near invisibility to become prominent (Liu, 2013; Steinhardt, 2015). For example, in the Xiamen anti-PX protest, tens of thousands of citizens participated in online discussions and later used mobile phone messaging to organize the offline protest to oppose the PX project and forced the government to relocate the plant. Not all green public spheres result in protest or confrontation, however. Some are peaceful. Sun et al. (2021) used 14 environmental keywords, ranging from “Climate change/Global warming” to “Environmental Protection Law” to identify and increase understanding of the process of deliberation, civic behaviors, and expression of sentiments in green public spheres. They conclude that the Chinese public is very active in expressing their views and emotions,

and in suggesting ways to avoid environmental degradation. Though governments and professional elites remain the most powerful actors in defining environmental risks in many environmental programs, the public actively participates in and influences the ultimate environmental decision-making (Chen et al., 2017).

Satellite Public Sphere

The emergence of a public sphere is more likely to result from the public's perspectives on matters of economics or day-to-day governance than from their interest in politics. When a group seeks recognition for reasons other than oppression but is engaged in wider public discourses, such spheres are called "satellite public spheres" (Squires, 2002). These spheres are characterized by the main actors being the public, including the marginalized; the discussion topics are less political but more related to people's life, with diversified yet less resistant discourses adopted in online public spheres (Han, 2015).

The topics discussed in satellite spheres include healthcare reform, food safety, child education, and working conditions. Debates about genetically modified foods were studied by Wang and Song (2020), who examined 21,837 relevant public posts on Weibo and found that users active in online discussions, either as activists or as skeptics, tended to have strong opinions. Healthcare reform is another hot topic that always arouses extensive public debates. Balla (2014) studied the demographic characteristics and subjective motivations of response to a proposed reform to China's health system. Although this online debating was initiated by the Department of Health, it provides a good opportunity for the public to complain about, comment on, or give suggestions to the health service in China. Sun et al. (2021) focus instead on online discussion pertaining to the relationship between environmental quality and public health, concluding that online forums foster relatively autonomous discourses for the public to share personal experiences. Given the democratic potential of the internet, less political satellite public spheres may counterbalance the dominant state discourses. However, online discussions in satellite public spheres do not usually involve very conflictual and resistant attitudes to state authorities (Sun et al., 2021). Conflictual or sensitive topics tend to be avoided or replaced by less controversial content to avoid potential trouble. The public employs various tactics to elude internet censorship. They deploy internet slang, play linguistic games, and translate potentially sensitive words into a number of languages, including Pinyin, English, Korean, and python script, which netizens are generally able to understand (Ma, 2021). For instance, in public spheres discussing IT professionals' dissatisfaction with their overwork, the term "996" was created to allude to their work schedule from 9:00 am to 9:00 pm each day, 6 days a week (Zhen, 2021).

Discussion and Conclusion

The internet and social media have a profound influence on the Chinese public spheres. They enable more diversified public participation, reshape state-society relations, and formed various public spheres. However, online public spheres are

compromised by state intervention, which leads to the reinforced echo chamber effect, decreased participation willingness, or even the closing of public spheres. Three discussion points emerge from our study.

First, social media enable more diversified Chinese public spheres and discourses. In an authoritarian system, free expression of different opinions is an important step toward democracy. Of the four types of spheres, the authoritarian public sphere is the most orthodox; strong censorship results in limited public interaction. In contrast, other types of public spheres are more popular for engaging the silent majority and empowering them to convey their thoughts. These public spheres provide open spaces for public deliberation and democratize the political processes. Especially the counter public spheres focus not only on social justice or civil rights as in Western societies (Squires, 2002) but also on local governments' misconduct. The green public sphere resonates with the increasing domestic environmental concerns (Yang & Calhoun, 2007) and urges the government to address not only economic development but also environmental protection. Without social media, these different forms of public spheres and the various voices can barely be heard by the government, and the discussed problems be put on the political agenda.

Second, public spheres are compromised when the state intervenes in social media. Rauchfleisch and Schäfer (2015) use three criteria of openness, longevity, and participation to empirically conceptualize public spheres. In the Chinese context, the realization of the three criteria is compromised by state intervention. Regarding openness, although the government sometimes keeps windows open and leaves some sensitive topics being aired on the internet to help improve public administration and public services (King et al., 2013), in most situations, different voices and criticism are removed through censorship, and the echo chamber effect is reinforced in online spheres (Lee et al., 2018). It also echoes the findings of Sun et al. (2018) that people avoid conflictual or sensitive content or replace it with less controversial content in the satellite public spheres. That means the online public spheres are not fully open. Regarding longevity, as Rauchfleisch and Schäfer (2015) suggest, sensitive topics would be censored, online articles or posts would be deleted quickly and the public spheres are thus undermined or even closed. Non-sensitive public spheres live much longer than sensitive spheres. Regarding online participation, Papacharissi (2002) has reminded that, while all netizens have the same access to information and opinion expression, the discourse may be dominated by a few. In addition, the Chinese case shows a unique scenario: Censorship impacts people's willingness to participate. Netizens and online community managers tend to withdraw rather than fight for free speech when encountering state censorship (Pang, 2008). The different degrees of participation with various levels of censorship reflect the influence of authoritarian deliberation on virtual spaces (Jiang, 2009).

Third, the emerging online public spheres reshape the state-society relations, though being far away from the desired power neutralization of the Habermasian public sphere. At the individual level, social media empower individuals in terms of accessing information and conducting open debate with constraints. Shao and Wang (2017) indicate that social media allow individuals to relinquish dependence

on traditional media by providing an alternative resource for seeking and disseminating information. Social media have promoted participatory democracy by giving individuals the chance to express themselves openly and create value for others. At the organizational level, social media open a new opportunity for the growth of informal online civil organizations. Scholars have often criticized the close relations between traditional civil society and governments. Yet social media allow informal civil organizations to expand their networks and influence. Currently, informal organizations are more visible in green public spheres than in other public spheres (Yang & Calhoun, 2007), perhaps because environmental problems such as air pollution and extreme weather disasters are universal concerns and can easily gain public and government support. This points to the need for Chinese civil societies to connect their discourse or framing with public and government concerns. More research is needed to understand under which conditions Chinese civil society can successfully organize collective actions and impact policy and practice.

The overall influence of social-media-embedded public sphere on democratic process and institutional change remains uncertain, namely whether online public spheres facilitate internet-based democratization or reinforce authoritarian governance (Guo, 2018; Seifert & Chung, 2009). Some scholars are optimistic and argue that social media provide opportunities for the public to express their opinions and participate in public affairs (Rauchfleisch & Schäfer, 2015; Sun et al., 2018), which is at the heart of a healthy democracy. Others are more pessimistic and contend that Chinese social media are more of a tool for political control, as the government has developed strategies including censorship, encouraging user self-censorship, and cracks down on dissidents (Guo, 2018; Sommerfeldt & Xu, 2017; Stockmann & Luo, 2019). Such spheres do improve political legitimacy and social stability, but do not necessarily facilitate democracy at the regime level (Seifert & Chung, 2009). This aligns with the point of Qin et al. (2017) that social media increase the incidence of small- and medium-sized protests but decrease the likelihood of large, regime-threatening protests. This debate reflects the influence of authoritarian deliberation on social-media-embedded public spheres in China. As argued by He and Warren (2010), there are two scenarios for authoritarian deliberation: The increasing use of deliberative practices stabilizes and strengthens authoritarian rule, or deliberative practices serve as a leading edge of democratization. More research is needed to understand these two possible scenarios in Chinese social media and their influence on the qualities and forms of public spheres in specific contexts.

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3 Reflecting on Collaborative Planning Theory under Digital Transition

Beyond Communicative and Agonistic Approaches

Yanliu Lin

Controversies on Communicative and Agonistic Approaches

Two major theories about planning and democracy in Western contexts are collaborative or communicative planning theory and agonistic planning theory (Bond, 2011). Both share common features, such as striving for democracy and equality, creating public spheres, and emphasizing language in power struggles or balance (Bond, 2011; Healey, 2006; Innes & Booher, 2015, 2018; Kühn, 2021). Yet, they differ fundamentally in how they conceptualize conflict (Kühn, 2021). The communicative approach is rooted in Habermasian communicative rationality. Habermas viewed conflicts as “dangerous, corrosive and potentially destructive of social order and therefore in need of being contained and resolved” (Flyvbjerg, 1998, p. 208). Accordingly, the communicative approach regards conflict as an occasion for participation and consensus-building, leading to conflict resolution. By contrast, Mouffe (2013, p. 7) argues that “conflicts in liberal democratic societies cannot and should not be eradicated, since the specificity of pluralist democracy is precisely the recognition and legitimation of conflict”. Thus, the agonistic approach sees conflicts as a catalyst for change and accepts dissent and strife.

The two approaches can also be distinguished along three theoretical dimensions (Lin, 2023). The communicative approach is grounded in deliberative democracy, in which political decisions should result from deliberation among free and equal citizens engaged in rational communication (Gualini, 2015). Its communicative space refers to the Habermasian public sphere, separate from the economy and the state, where citizens debate matters of public concern in an open, inclusive, and equal manner (Habermas, 1989). Consequently, communicative planning emphasizes consensus building: Selected stakeholders engage in face-to-face, long-term dialogue to define problems, negotiate interests, and find solutions to complex planning challenges (Innes & Booher, 1999). It assumes that power relations can be neutralized through communication, leading to shared meanings and norms that shape perceptions and actions (Innes & Booher, 2015). Here, planners act as negotiators, mediators, and facilitators. However, critics argue that the communicative approach neglects institutional contexts, power differentials, conflicting rationalities, and planning outcomes (Agger & Sørensen, 2018; Van Dijk, 2021).

Some scholars position the agonistic approach as an alternative or addition to collaborative planning (Bond, 2011; Brand & Gaffikin, 2007), while others suggest a paradigm shift toward agonistic planning (Bäcklund & Mäntysalo, 2010; Kühn, 2021). Agonistic planning draws on the political concept of “agonistic pluralism”, which emphasizes agonistic forms of conflicts, where opponents are not viewed as enemies but adversaries (Mouffe, 2013). It highlights the role of emotion and passion in power struggles and validates pluralism by endorsing multiple forms of expression and communication (Brand & Gaffikin, 2007). Accordingly, the agonistic public sphere is a space “where conflicting points of view are confronted without any possibility of a final reconciliation” (Mouffe, 2013, p. 92). While Mouffe acknowledges the need for consensus on the institutions and ethical-political values underpinning democracy, she argues that disagreement over their meaning and implementation is inevitable, producing what she terms a “conflictual consensus” (Mouffe, 2013, p. 8). Agonistic pluralism plays an important role in opening up existing power structures and articulating pro-authoritarian arguments in relation to more pluralistic and previously marginalized views, values, and experiences (Yamamoto, 2020). Power is conceived as the achievement of discursive hegemony, referring not only to language but also to actions in practice, with the aim of political supremacy over opponents (Kühn, 2021; Mouffe, 2013). However, this approach has been criticized for its theoretical weakness and the difficulties of translating it into planning practice. It assumes that conflict can be turned into a productive force but offers little explanation of how planning might contribute to a productive solution of conflict (Kühn, 2021). Moreover, the role of planners remains unclear and challenging. Kühn (2021) argues that planners should offer public arenas for open-ended disputes, discuss alternative solutions, and use citizen activism to change the fields of power. Yet this vision raises new challenges for planners, particularly regarding their capacity to create arenas for disputes and mobilize collective action (Lin, 2023).

Institution, Institution Design, and Rule

An Institutional Approach to Collaborative Planning and Its Criticism

Institutional transformation is important for planning, and institutionalization theory can help planners to understand their institutional environment (Alexander, 2005). Hall and Taylor (1998) identify three schools of thought about institutionalization: The historical, rational choice, and sociological approaches. The historical approach defines institutions as systems of formal and informal rules and practices in politics, emphasizing institutions associated with formal organizations and path-dependency. The rational choice approach is related to institutional economics, assuming rational actors with fixed preferences and values. It emphasizes the role of strategic information and behavior in institutional emergence and change. The sociological approach focuses on institutional forms and procedures in organizations, viewing institutionalization as a historic accretion of culturally specific forms and practices adopted for legitimacy in a logic of social appropriateness.

Alexander (2005) argues that a blend of rational choice and sociological institutionalism offers a useful basis for institutional design. Institutional design can be described in terms of what it is, where it occurs, and who undertakes it. It is pervasive in legislation, policymaking, regulations, planning, and programs. According to Alexander (2005):

Institutional design means designing institutions: the devising and realization of rules, procedures, and organizational structures that will enable and constrain behavior and action so as to accord with held values, achieve desired objectives, or execute given tasks.

(p. 213)

The evolutionary transformation of institutions involves institutional design. Institutions are created and changed through human action, either through the evolutionary process of mutual adaptation or through purposive design. There are different levels of institutional design (Alexander, 2005). The highest level addresses significant macro-societal processes and institutions: Constitution writing, which refers to new legal codes and processes, and strategic political-administrative programs. The meso-level involves the institutional design of planning and implementation structures and processes. The lowest level of institutional design involves intra-organizational design, addressing organizational sub-units, and small semi-formal or informal social units, processes, and interactions. Alexander (2005) also emphasizes the material of institutional design—institutional-agent interactions: (1) as products or subjects of institutional design, and (2) as objects of institutional design, i.e., institutional design aspires to produce significant institutional or social change to influence action and behavior.

Collaborative planning theory is largely related to the sociological approach of institutionalization, especially Giddens's (1984) work on the continuous interaction between agency and structure. Actors live within culturally bound structures of rules and resource flows, but they also remake them in each instance, reshaping structuring forces and cultures (Healey, 2006). Institutions are thus frameworks of formal and informal norms, rules, and practices that structure actors' actions, which in turn reshape institutions (Giddens, 1984). Institutions are evident not only in formal rules and structures but also in informal rules, norms, culture, practices, and social capital. According to Healey (2006), collaborative planning efforts involve attention to institutional design at two levels. The first emphasizes the hard infrastructure, i.e., "the design of the political, administrative and legal systems which structure the context of local instances" (p. 286). Planning systems need to be critiqued and reinvented through careful assessment of rights and duties, resource allocation mechanisms, performance criteria, and competencies. Without such hard infrastructure, Healey (2006) argues, it would be difficult to challenge the power of dominant groups embedded in existing governance. The second level focuses on the soft infrastructure of individual efforts in planning practices. This involves "attention to stakes, arenas, routines and styles, discourses and the nature

of agreement could help shape such practices into more fully collaborative and inclusionary forms of collective reasoning and argumentation” (p. 312).

The institutionalist approach to planning emphasizes the interactions between specific practices and institutional contexts, as well as the governance capability to address particular planning problems (Healey, 2007). The underlying assumption is deliberative democracy, in which political decisions should be reached through deliberation among free and equal citizens engaged in rational argumentation (Gualini, 2015). Reconfiguring institutional design is thus a task for actors with interests and leadership qualities, involving the mobilization of coalitions to achieve formal changes and the transformation of cultural practices (Healey, 2007). Governance activities are shaped by formal political and planning systems, social capital, and culture, but they also actively develop new institutional capital (e.g., political, social, and cultural capital) from the grassroots concerns of specific stakeholders (Healey, 2006). This process leads to changes in values, understandings, policies, and practices (Innes & Booher, 2018). Accordingly, Healey (2007) argues that governance transformation occurs at the interplay between deeper cultural practices and the visible routine and strategic interactions, developing a three-tiered conception of institutionalization processes.

- *Specific episodes*: Interactions of actors in specific institutional sites or arenas, where they learn the discourses, practices, and values, and may change them through participation in social movements and new partnerships.
- *Mobilization of bias*: Strategic projects such as social movements or governance arenas that mobilize actors, develop discourses, and change practices. Crucial here are the network actors’ access and the discourses framing conflicts, problems, solutions, and interests.
- *Culturally embedded assumptions and habits in governance cultures*: Deeper cultural factors explaining why certain governance modes persist, including both national and local cultures, such as social capital in specific places.

However, the institutionalist approach to collaborative planning has received criticism. Calderon and Westin (2021) argue that it often emphasizes institutions rather than the role of actors. Although it stresses the importance of context through the ontological duality (interplay) of institutions and agency, it emphasizes long processes of institutional transformation and results in analytic dualism (separation), which is problematic for the study of specific collaborative planning processes. Calderon and Westin (2021) highlight the immediate interplay between institutions and agency in everyday socio-political activities. They operationalize this duality by identifying institutional factors (norms, regulations, and routines) and agential factors (understandings, values, resources, and relationships). Moreover, Agger and Sørensen (2018) criticize that the institutionalist approach overlooks tensions between the institutional logic of public bureaucracies and the dynamics of collaborative planning. Integrating theories of public innovation, network governance, and collaborative planning, they develop a taxonomy of how planners experience tensions when managing collaborative innovation in bureaucratic contexts. They

highlight conflicts between hierarchical authorization systems that valorize order, control, and stability, and collaborative innovation processes that distribute authority horizontally and valorize creativity, experimentation, and change. Such critiques are particularly prevalent in the Global South or authoritarian contexts, where the theory's underlying assumptions, such as a deliberative democracy and a well-functioning civil society, may not hold (Lin, 2023). These critiques highlight the need to pay closer attention to institutional contexts that provide opportunities or constraints for actors. While the agonistic approach emphasizes transforming antagonism into agonism and establishing institutions that allow conflicts to take an agonistic form (Mouffe, 2013), existing studies provide little discussion of institutional procedures for managing conflict and offer limited guidance on how this could be realized in practice (Kühn, 2021).

Institutions and Rules

Although institutions can be reshaped over the long run by actors' practices, it is equally important to understand how existing institutions shape actors' behavior and actions. Current collaborative planning research does not provide a clear answer to this question, as it has mainly focused on the interplay between institutions and actors. I argue that collaborative planning theory can be enriched by insights from studies on commons-pool resources and governance networks.

Collaborative governance is a specific form of governance networks that emphasizes solving societal problems through horizontal collaboration. Such arrangements may exist at the regional level in areas, such as housing provision, greenway planning, water governance, and environmental management. Collaborative governance can extend to common-pool resources (CPRs), such as community gardening, shared public facilities in urban regeneration, and joint efforts to address environmental challenges. However, urban regeneration and environmental management often face the "tragedy of the commons" (Hardin, 1968), such as the overuse or irresponsible use of public spaces and facilities in urban communities, water pollution, and the overexploitation of nature. CPRs are systems that generate finite quantities of resource units, so that one person's use subtracts from the quantity available to others (Ostrom et al., 1994). Many CPRs are self-governed. The "tragedy of the commons" can occur in highly valued, open-access commons where participants and/or external authorities fail to establish an effective governance regime (Hardin, 1968). The problem of commons regimes is related to the governance of individually rational action in a context where outcomes are dependent on the actions of other users.

Ostrom (1986) proposes frameworks for institutional design and rules that enable actors to work together to reverse environmental degradation and sustainably govern their commons. She defines rules as prescriptions commonly known and used by a set of participants to order repetitive, interdependent relationships. Institutions can be defined as the sets of working rules that are used to determine who is eligible to make decisions in some arena, what actions are allowed or constrained, what aggregation rules will be used, what procedures must be followed,

what information must or must not be provided, and what payoffs will be assigned to individuals dependent on their actions (Ostrom, 1990). Working rules may or may not be expressed in formal law and regulations, and some rules used by appropriators in CPR settings may differ considerably from legislative, administrative, or court regulations. In other words, these rules can be formal and informal. There is a typology of rules for governing CPRs (Ostrom, 1986; Ostrom et al., 1994).

- *Position rules*: Specify the capabilities and responsibilities of actors in positions.
- *Authority rules*: Define the actions assigned to specific positions.
- *Aggregation rules*: Regulate the distribution of decision functions and how individual actions are transformed into outcomes.
- *Information rules*: Describe under which conditions information and communication channels are open or closed, and the types of language and messages permitted.
- *Boundary rules*: Prescribe geographical boundaries and entry conditions for actors.
- *Scope rules*: Refer to outcomes that are allowed, mandated, or forbidden.
- *Pay-off rules*: Outline the benefits and costs to participants in positions given their actions.

Some rules are operational and concern daily decisions, while others are more fundamental for the actors who work with them and have a constitutional character. Through institutional arrangements, sets of rules create situations that shape the actions actors can take. These rules have been widely used in studies on river basin management, community gardening, energy transitions, and other environmental domains. Ostrom's rules have also been applied in governance network studies. Governance networks refer to policymaking, implementation, and service delivery through webs of relationships among autonomous but interdependent government, business, and civil society actors (Klijn & Koppenjan, 2016). These networks are defined as "more or less stable patterns of social relations between mutually dependent actors, which cluster around a policy problem, a policy programme, and/or a set of resources and which emerge, are sustained, and are changed through a series of interactions" (Klijn & Koppenjan, 2016). Klijn and Koppenjan (2016) argue that governance networks can be regarded as institutions, since they consist of both social relationships and systems of rules. Accordingly, "institutional design is the deliberate attempt to change the set of rules that structures interactions within policy networks" (Klijn & Koppenjan, 2016, p. 149). They identify several institutional design strategies: (1) focusing on network composition (e.g., consolidating or changing actors' positions or adding new actors); (2) targeting network outcomes (e.g., altering pay-off structures and evaluation criteria); (3) shaping network interactions (e.g., introducing conflict settlement mechanisms, new procedures, or supervisory relationships). Institutional design strategies can be implemented through: Direct intervention (e.g., legislation that changes formal rules through legislation) or indirect interventions (e.g., reframing to influence perceptions and interaction patterns). Reframing may involve major changes in

actors' perception so that they interpret situations differently and adjust their behavior. Yet, [Klijn and Koppenjan \(2016\)](#) call our attention to the potential bias of institutions: "they effect a stable interaction environment but also bring about non-decision making and mobilization of bias" (p. 148). Institutional design often occurs in specific arenas, where some actors have easier access and greater influence than others. Unexpected results may also occur, creating the need for adjustments to institutional design.

However, Ostrom's framework mainly focuses on self-governed CPRs. Collaborative practices, by contrast, often extend beyond commons and self-governance. First, they may involve both common and individually owned resources. For example, a neighborhood consists of individually owned houses but also shared amenities and goods. Second, studies on collaborative planning have largely focused on horizontal collaboration (e.g., [Healey, 2006](#); [Innes & Booher, 2018](#)). Yet collaboration based on horizontal networks may encounter accountability challenges due to unclear rules and responsibilities ([Cristofoli et al., 2021](#)). Recent studies of collaborative governance in public administration have emphasized mandated collaboration, relying on bureaucratic, market-based, or clan-based mechanisms to address complex problems ([Afandi et al., 2023](#)). [Bryson et al. \(2015\)](#) argue that mandated collaboration, which specifies membership, designates decision-makers, and establishes performance or accountability mechanisms, is necessary in some collaborative practices. Finally, most studies on collaborative governance assume liberal-democratic contexts. In authoritarian settings, however, governments often dominate both vertical and horizontal relations. It is essential to examine the influence of hierarchical political and institutional systems on institutional design and the dynamics of collaborative governance ([Lin, 2023](#)).

Power Sources, Networks, and Leadership

Power Neutralization in Collaborative Planning and Its Critiques

Collaborative or communicative planning theory emphasizes interaction among stakeholders from the state, economy, and civil society, highlighting citizen participation and empowerment ([Healey, 2006](#); [Innes & Booher, 2018](#)). It seeks to share power in decision-making with stakeholders in order to co-develop effective solutions to address complex problems ([Purdy, 2012](#)). Grounded in Habermasian communicative rationality, the theory assumes that power relations can be mediated and neutralized through communication. [Innes and Booher \(2015\)](#) argue that "the power relationship works through communication, which builds shared meanings of power—of who and what is powerful" (p. 203). They emphasize that norms and meanings can be developed through communication and, in turn, shape the perceptions and actions of actors. Collaborative rationality, therefore, requires an equalization of power: "all participants have equal power to not assent to a proposal, and all have equal power to question more powerful members and offer them alternatives" ([Innes & Booher, 2018](#), p. 109). Accordingly, planners exercise power by shaping attention and questioning information, statements, and

arguments, serving as facilitators, mediators, and negotiators. As [Innes and Booher \(2018\)](#) state, “skilled facilitators make sure that everyone is heard respectfully, that all have the same information, and that all have the capacity and the support to speak freely” (p. 108). Similarly, [Forester \(1989\)](#) argues that planners should develop negotiation strategies to ensure the interests of the major parties while supporting collective actions that challenge power structures. [Healey \(2006\)](#) describes planners as knowledge mediators and brokers who gather and translate knowledge resources into digestible inputs for the process. She also argues that planners can choose either to reproduce existing power structures or attempt to transform them in their day-to-day practices.

[Westin \(2022\)](#) analyzes how the three major collaborative planning scholars—John Forester (within U.S. pragmatism), Patsy Healey (drawing on European sociological institutionalism), and Judith Innes (in the U.S. tradition of alternative dispute resolution)—conceptualize power. He proposes a framework with power to, power with, and power over. Power to refers to the dispositional ability to act derived from the (re)production of social order, while power with emphasizes consensual interaction and is closely tied to collaborative planning. [Westin \(2022\)](#) also distinguishes between illegitimate and legitimate power over:

Planning interactions where actors use their power in order to get other actors to do what they otherwise would not have done in a manner that actors can assess either as acceptable or as unacceptable according to local or universal criteria.

(p. 138)

According to [Westin \(2022\)](#), power is often framed negatively as illegitimate power over. Consequently, scholars have highlighted the ways in which experts, bureaucrats, and corporate actors impose their will at the expense of marginalized communities. Despite their conceptual differences, Forester, Healey, and Innes all emphasize that collaborative planning should “empower disadvantaged communities by including them in well-designed planning processes, where the use of power over by powerful actors can be transformed into relations of power with; concerted action towards shared objectives” ([Westin, 2022](#), p. 148). Westin cautioned, however, that in practice, where conflicts may be open or covert, planning cannot rely solely on rejecting illegitimate power over. Overemphasis on this form risks ignoring situations where it may be necessary or even constructive under certain conditions.

Yet, the idea of power neutralization has been widely criticized. Drawing on Foucault’s power analytics, [Flyvbjerg \(1998\)](#) argues that communicative planning neglects an understanding of power relations, which are viewed as positive exercises through movements related to strength, tactics, and strategies, and inseparable from knowledge. [Purcell \(2009\)](#) contends that collaborative planning is not inherently inclusive, as it often privileges some stakeholders, such as business groups, while ignoring marginalized communities in neoliberal projects. From a neo-Marxist perspective, [Fainstein \(2015\)](#) argues that power is inherent

in the political-economic structure and context, and is therefore difficult to change through communication. Agger and Sørensen (2018) also illustrate several challenges for planners who aim to promote multi-actor collaboration in contexts with different institutional logics and modes of governance. They call for more research to understand how the professional backgrounds of planners affect their ability to cope with institutional tensions and how bureaucratic logic in institutions influences management strategies among planners.

Some scholars advocate an agonistic approach to power in collaborative planning. In this view, power is understood as the achievement of discursive hegemony, aimed at political supremacy over opponents and the marginalization of lesser interests (Kühn, 2021). Discursive hegemony encompasses not only language but also actions in practice (Mouffe, 2013). The agonistic approach, therefore, emphasizes a left-liberal notion of “power over” that operates within democratic rules (Kühn, 2021). For example, citizens may use the Internet and social media to facilitate debates, construct new meanings, organize collective actions, and exert political pressure to establish a counter-hegemonic discourse in neoliberal projects (Bäcklund & Mäntysalo, 2010; Kühn, 2021). Planners are argued to provide public arenas for open-ended disputes, encourage the discussion of alternatives, and leverage citizen protests and social movements to reshape power relations (Kühn, 2021). This perspective, however, raises practical challenges regarding planners’ capacities to sustain such arenas, as well as their political competence to mobilize collective actions in contested environments.

Power Sources, Arenas, and Dimensions

Rather than focusing solely on communication as a means of neutralizing or contesting power, the public administration literature emphasizes power differences and their relation to underlying sources of power. Bryson et al. (2006) identify two primary concerns regarding power in cross-sector collaborations. First, adequate power is needed to convene stakeholders, but governments often act as both conveners and participants, which may lead them to dominate the process. Second, actors with fewer resources, weaker voices, and limited legitimacy may be excluded. Purdy (2012) argues that power can be exercised structurally and relationally through three main sources of power:

- *Authority*: The right to exercise judgment, make decisions, or take action.
- *Resources*: Tangible assets (e.g., financial means, technology, and supplies) as well as intangible assets (e.g., knowledge, culture, and capabilities).
- *Discursive legitimacy*: The ability of an actor to represent a discourse or speak on behalf of an issue in the public sphere.

Purdy (2012) further argues that power can be exercised through three arenas: Participants, process design, and content. In the participation arena, authority can be used to determine who is invited to participate, while resources influence how many can participate and how well-informed they are. In process design,

organizations with authority may challenge deep structures by sharing their power to design the process. In the content arena, authority allows organizations to set agendas and shape participants' expectations about outcomes. However, this perspective is rooted in [Booher's \(2004\)](#) concept of authentic collaborative governance, emphasizing how to use authority, resources, and discursive legitimacy to balance power among participants and create more inclusive processes. It assumes that organizations with authority can share power, mobilize resources, and control discourse by selecting particular frames in face-to-face meeting settings. This assumption, however, is problematic in institutional contexts characterized by hierarchy, bureaucracy, or neoliberalism, where political leaders, elites, or private actors dominate by controlling resources. Moreover, discourse becomes harder to control once it moves into online environments. Yet, the three sources of power (authority, resources, and discursive legitimacy) remain a valuable lens for analyzing how different actors exercise power in planning processes. Public authorities may rely on authority and administrative resources, the private sectors on financial strength, and citizens, civil society, and experts on discursive legitimacy, especially when amplified by the Internet and social media.

Discursive legitimacy is also connected to Lukes's third dimension of power. [Lukes \(2005\)](#) develops a multidimensional view of power that has been widely applied. He defines power as: "A exercises power over B when A affects B in a manner contrary to B's interests" (p. 37). The first dimension refers to the capacity of actors to influence decision-making. The second dimension concerns agenda-setting, whereby certain issues and actors are kept out of decision-making processes. This involves biased mobilization, for example, when key stakeholders are excluded or conflicts are concealed through purposeful agenda-setting. The third dimension refers to shaping values, interests, needs, and ideology, representing the invisible and internalized aspects of power. These three dimensions of power can reveal both visible and hidden power relations in planning practice. Especially in authoritarian contexts, they help expose how public authorities control and manipulate participatory and deliberative processes through a pre-decided agenda and shaping participants' perceptions in complex planning practices ([Li et al., 2024a, 2024b](#)).

Power Exercised through Networks

Power is increasingly reshaped and exercised through communication networks that extend beyond traditional social relations. Collaborative planning theory can be enriched by insights from network power and network science. The rapid development of the Internet, wireless communication, smartphones, and social media has profoundly transformed societal structures and power dynamics. According to Manuel [Castells \(2010\)](#), we now live in a network society:

Networks constitute the new social morphology of our societies, and the diffusion of networking logic substantially modified the operation and outcomes in processes of production, experience, power, and culture. While the

networking form of social organization has existed in other times and spaces, the new information technology paradigm provides the material basis for its pervasive expansion throughout the entire social structure.

(p. 500)

In a network society, power is multidimensional and organized around networks, which engage various actors with diverse interests and different degrees of influence. [Castells \(2011\)](#) identifies four distinct forms of power:

- *Networking power*: The power held by actors and organizations included in networks over human collectives or individuals who are excluded.
- *Network power*: The power derived from the standards and rules required to coordinate social interaction within networks, exercised through defining inclusion rather than by exclusion.
- *Networked power*: The power of actors over other actors within the same network, with forms and processes specific to each network.
- *Network-making power*: The ability to program specific networks in line with the programmers' interests and values, and to switch among different networks through strategic alliances among dominant actors.

Thus, power can be differentiated by inclusion or exclusion from networks, actors' positions within them, the rules governing interaction, and actors' capacities to program or switch networks. Elites such as planning experts, media actors, and civil society representatives often maintain extensive online and offline networks that link them with professional communities, political actors, and the general public. They can act as key switchers across networks. Recent studies have applied social network analysis to examine networks generated by social networking sites in planning processes ([He et al., 2024a, 2024b](#)). In such an analysis, nodes represent actors and ties represent information flows. Findings show that experts, civil society, and media can emerge as power centers by facilitating information flows and online debates. The open and flexible nature of networks also enables citizens to expand their horizontal ties and, in some cases, become influential actors in decision-making processes. Yet, the centralization of networks also reveals persistent inequalities in power relations both within and between networks.

Where there is power, there is also counterpower—"the capacity of a social actor to resist and challenge power relations that are institutionalized" ([Castells, 2007](#), p. 239). In the network society, counterpower is exercised by "fighting to change the programs of specific networks and by the effort to disrupt the switches that reflect dominant interests and replace them with alternative switches between networks" ([Castells, 2011](#), p. 773). Counterpower is evident in social movements and counter-hegemonic planning practice that seek to transform power relations in the neo-liberalizing world ([Purcell, 2009](#)). While social media enables the creation of large-scale networks, social movements often occupy urban spaces to make themselves visible in everyday life. These networked social movements emerge when people first connect through the Internet and social networking sites and then

mobilize for collective action in urban spaces (Castells, 2012). Such movements hold the potential to develop agonistic forms, depending on the extent to which they repoliticize urban governance and establish reflexive interfaces with planning practices (Gualini, 2015). For instance, citizens increasingly use the Internet and social media to generate new meanings and values, organize collective actions, challenge existing power relations, and construct discursive counter-hegemony (Bäcklund & Mäntysalo, 2010; Kühn, 2021).

The Role of Planners and Leadership

The roles of planners have become increasingly complex and diverse. In recent years, the development of the Internet and social media has created new opportunities for planners to exercise new roles in collaborative practices. Tayebi (2013) argues that social networking sites allow planners to initiate public discussions and act as “planning activists” by building networks, mobilizing citizens, and advocating marginalized groups’ right to the city. Yet, Lin and Kant (2021) argue that social media participation requires planners and public authorities to possess strong management and organizational skills to facilitate interaction and promote constructive dialogue.

Some scholars emphasize the diverse roles of planners in navigating bureaucratic complexity. Agger and Sørensen (2018) explore how frontline planners cope with tensions between fostering collaborative innovation in planning and operating in a bureaucratic context. Drawing on collaborative planning theory, governance network research, and public innovation theory, they propose four management roles for collaborative planners: (1) a pilot, monitoring the innovation process by setting agenda, convening stakeholders, organizing activities, maintaining focus on outcomes, and mobilizing resources; (2) a whip, applying soft power to encourage reluctant actors’ engagement; (3) a culture-maker, normalizing collaborative behavior and rewarding experimentation and risk-taking; and (4) a communicator, fostering mutual understanding and transforming destructive conflicts into productive learning and innovation. Based on urban regeneration projects in Copenhagen, they show that planners’ coping strategies were shaped by their professional backgrounds. They also argue that planners tended to focus on process management rather than outcomes and performance, facing the challenge that:

Frontline planners encounter when the purpose is not only to promote collaboration to secure democratic participation among local actors, but is also to secure the promotion of innovation that may call for the involvement of other types of actors and the employment of soft forms of governance to secure performance through the promotion and diffusion of innovative solutions.

(p. 69)

Recognizing planners’ limited capacity and power, Fahmi et al. (2016) highlight the importance of local leaders and institutional arrangements in fostering consensus building and effective collaboration. Similarly, Van Dirk (2021) finds

that complex planning situations require creative leaps and strong leadership, which increase the likelihood of reaching tipping points when windows of opportunity emerge. In public administration studies, there is considerable debate on leadership in collaborative governance. [Agbodzakey \(2021\)](#) argues that leadership fosters shared understanding, trust, commitment, communication, and empowerment, with an emphasis on facilitative leadership that focuses on coordination and dialogue rather than command-and-control. Leaders act as catalysts for creative dialogue by framing issues and embracing divergent perspectives, thereby ensuring fairness in both process and outcome, which aligns closely with collaborative planning theory's portrayal of planners as facilitators ([Innes & Booher, 2018](#)). [Bryson et al. \(2006\)](#) distinguish between formal and informal leadership: Formal leadership positions, such as co-chairs of steering committees or collaborative coordinators, require authority, vision, long-term commitment, and political acumen, while sponsors and champions play key roles by mobilizing resources and sustaining collaboration. Informal leadership is equally important, as participants cannot always rely on centralized direction. [Emerson et al. \(2012\)](#) highlight the importance of identified leaders who secure resources and support, demonstrate impartiality, and commit to collaborative problem solving. They describe roles such as sponsor, convener, facilitator, mediator, representative, technologist, and public advocate, noting that some are crucial at initiation, others during deliberation, and others in implementation. They argue that leaders are essential to collaborative success because they absorb the high transaction costs of initiating efforts by providing staffing, technology, and other resources.

Public Spheres, Framing, and Legitimacy

Collaborative Rationality and the Public Sphere

Collaborative planning theory is grounded in Habermasian communicative rationality, which identifies the conditions under which the results of deliberation can be viewed as rational. It applies Habermasian principles to make planning practice more democratic and inclusive, based on the premise of rational and legitimate arguments in the public sphere ([Bond, 2011](#); [Healey, 2006](#)). According to [Habermas \(1991\)](#), the public sphere is a space separate from the economy and the state, where citizens gather together to debate issues of public concern, emphasizing openness, egalitarianism, and rational communication. Several ideal conditions are crucial to rational communication. First, dialogue must take place face-to-face among all the differing interests. Second, statements must be comprehensive and true in the positivist sense, and speakers must be sincere and legitimate in making their claims. Third, speakers must be able to develop sufficient intersubjective understanding. Fourth, all participants must be treated and listened to equally. Collaborative planning theorists have translated these conditions into planning practice. [Innes and Booher \(1999\)](#) emphasize consensus building, in which selected representative stakeholders engage in face-to-face, long-term dialogue to address controversial issues by collectively defining problems, negotiating interests, and finding solutions.

Innes and Booher (2018) argue that dialogue and debate in the public sphere are important for ensuring democracy and creating the conditions for the legitimate exercise of power as a representation of citizens' values and interests. They present a model of collaborative rationality based on diversity of interests, interdependence of interest, and authentic dialogue, which adheres to Habermas' ideal speech conditions: Inclusiveness, sincerity, legitimacy, and equal access to information and voice.

However, Brand and Gaffikin (2007) argue that power differentials cannot be dissolved through logical argumentation and that there is a need to acknowledge the role of emotion and conflict in deliberation. Mouffe (2013) criticizes the ideology of the Habermasian public sphere and presents the concept of the agonistic public sphere—"the public space where conflicting points of view are confronted without any possibility of a final reconciliation" (p. 92). The agonistic public sphere is a domain for dissent and resistance, and a condition of pluralism that challenges the legitimacy of the liberal order (Gualini, 2015). It emphasizes the role of emotion and passion in contestation. This reconceptualization of the public sphere also leads to a new understanding of consensus. Mouffe (2013) argues that "there will always be disagreement concerning the meaning of those values and the way they should be implemented. This consensus will therefore always be a 'conflictual consensus'" (p. 8). However, the notions of conflictual consensus and non-final reconciliation are problematic, as they are difficult to translate into planning practices, which require solutions to address both short-term and long-term issues.

New Media, Micro-publics, and Multiple Forms of Public Spheres

Digital technologies have increasingly reshaped public spheres. Social media, with its open, low-cost, interactive, and interconnected features, has become a popular tool for participation and communication. They have enabled citizens, including marginalized social groups, to express their invoices and take collective action to challenge planning decisions. They have the potential to fulfill many different participation needs, including informing, consultation, involvement, collaboration, and empowerment (Pflughoeft & Schneider, 2020). It overcomes some constraints of traditional planning methods for participation and communication, such as a small number of representative participants, fixed time, and physical spaces. Yet, communication in social media platforms is different from face-to-face dialogue as presented by Habermas or collaborative planning theorists.

The development of the Internet and social media has led to the rise of a new form of societal communication called mass self-communication, which reaches a potentially global audience through internet connection (Castells, 2007). This new mode of communication is characterized by "multimodal" and "self-generated in content, self-directed in emission, and self-selected in reception by many who communicate with many" (Castells, 2007, p. 248). The horizontal networks of interactive communication through social networking sites are difficult to control by governments, so citizens can easily express their voices and organize collective actions. This has led to "a historical shift of the public sphere from the institutional

realm to the new communicative space” (Castells, 2007, p. 238). Although rational-critical debate may be found in social media and the Internet, many media scholars question whether the Habermasian public sphere exists online (e.g., Bimber & Gil de Zúñiga, 2020; Bruns & Highfield, 2015). The Habermasian public sphere is characterized by rational communication and framed by the operation of old media, especially print and broadcast, where mediated political communication is carried on by elites and public actors (Bruns & Highfield, 2015). Nowadays, citizens can participate in online discussions and transform the qualities and forms of public spheres. Traditional mass media have also used the Internet and social networking sites to distribute content and interact with the audience, mixing vertical and horizontal communication nodes (Castells, 2010). Bruns and Highfield (2015) argue that social media transform the singular public sphere into many public sphericules and micro-publics that are coexisting, intersecting, and overlapping in multiple forms:

Unpacking the traditional public sphere into a series of public sphericules and micro-publics, none of which are mutually exclusive but which coexist, intersecting and overlapping in multiple forms, is one approach to understanding the ongoing structural transformation of the public sphere. It is also important to note that these publics may follow their own logics and norms, making use of the affordance of social media platforms for their own purposes, which may differ from established practices.

(p. 70)

Micro-publics thus address particular thematic debates among small groups of participants rather than public discourse within entire domains for the general public. Recently, Habermas (2022) also reflects on the influence of social media on the fragmentation of the public sphere. He argues that “a mode of semi-public, fragmented and self-enclosed communication seems to be spreading among exclusive users of social media that is distorting their perception of the political public sphere as such” (p. 146). However, these public spheres are assumed as “freely accessible media spaces” that have been freed from “censorship” (Habermas, 2022). This premise is mainly attuned to Western democratic contexts and should be questioned in more authoritarian contexts, where there is state control and censorship on the Internet. Rauchfleisch and Schäfer (2015) use three criteria of openness, longevity, and participation to empirically conceptualize public spheres that exist in Chinese social media platforms. They present a typology of public spheres that exist on Weibo in which open and critical debates can occur under specific circumstances. For instance, thematic public spheres include phenomena of common concern, such as environmental pollution or food safety; short-term public spheres emerge after unexpected events; and local public spheres focus on sub-national phenomena and problems. These public spheres have different levels of state control depending on the sensitivity of the topics.

These public spheres may also be characterized by emotion and contestation, as suggested by Mouffe (2013). The study of Tong (2015) reflects characteristics

of agonistic public spheres in social media platforms, where marginalized social groups express their emotions, such as anger, in facing social injustice. Yet, [Lin \(2022\)](#) calls our attention to other potential challenges associated with social media, such as population bias, information credibility, and opinion polarization. She also indicates that it is essential to examine how online participation and discussions influence offline public spheres or decision-making to affect planning outcomes. Online participation can generate local knowledge and help to identify planning problems and solutions, but whether it can influence offline decision-making may depend on the extent to which public authorities take account of the participation outputs, how the issues are framed, and what the opportunity structure is ([Li et al., 2024a](#); [Lin & Kant, 2021](#)).

Framing and Opportunity Structure

Conflicts can be described as disputes in which contending parties hold conflicting frames ([Schön & Rein, 1994](#)). According to collaborative planning theory, face-to-face dialogue should address “the frames that participants tacitly employ—the frames that interfere with collaboration, learning, and creativity and that are largely invisible in other types of discourse” ([Innes & Booher, 2018](#), p. 120). A frame refers to how people interpret an issue, situation, or practice. In dialogue, participants bring different frames, but they may also construct new ones that enable collective action. A skilled planner is expected to recognize these differences, facilitate discussion of underlying assumptions, and help participants overcome impasse. However, this perspective pays insufficient attention to the contextual factors and opportunity structure that shape framing and actors’ actions. Besides planners, civil society and elites can also influence discourse and framing, especially through on-line platforms.

There is considerable debate on framing strategies and opportunity structures in social movement literature. [Castells \(2012\)](#) argues that social movements are “the producers of new values and goals around which the institutions of society are transformed to represent these values by creating new norms to organize social life” (p. 9). Framing is crucial to social movements, as it helps create shared cause, values, or goals. [Tarrow \(1998\)](#) notes that framing generates grievance but also defines “us” (to build collective identity) and “them” within a movement’s conflict structure. She stresses that while organizers actively engage in framing work, not all framing is under their control. [Koopmans and Olzak \(2004\)](#) point out that it is influenced by the “political opportunity structure”, which refers to the capacity for mobilization depending on opportunities and constraints in specific political and institutional settings. They also indicate that the public sphere mediates between political opportunity structures and movement action, and introduce the concept of “discursive opportunities” to describe the opportunities and constraints that become publicly visible and thus affect mobilization. They argue that the public sphere is a space for political communication characterized by intense competition, with boundaries that are not fixed but can expand over time due to the growing number of communicative channels, including the Internet. They define discursive

opportunities as “the aspects of the public discourse that determine a message’s chances of diffusion in the public sphere” (p. 202), with three elements of visibility, resonance, and legitimacy.

- *Visibility*: The extent to which a message is included across communicative channels and the prominence of its inclusion, shaped by the interaction of new and traditional media.
- *Resonance*: The degree to which frames provoke reactions from other actors in the public sphere, enhancing the reproduction and diffusion, often linked to specific socio-political cultures.
- *Legitimacy*: The degree to which third-party reactions in the public sphere support an actor’s claims rather than reject them.

Koopmans and Olzak (2004) suggest a curvilinear relation between legitimacy and diffusion, whereby controversial messages often achieve greater replication. This view aligns with the agonistic approach, which highlights contention within the public sphere. Yet, most discussions of discursive opportunities are grounded in social movement literature and democratic contexts. Whether frames resonate with the majority of citizens and/or public authorities also depends on specific socio-cultural contexts. Purdy (2012) emphasizes that discursive legitimacy is a source of power. Societal actors can exert influence when they are perceived to speak on behalf of ideals, such as ecological preservation or social equality. However, collective actions or bottom-up initiatives in collaborative planning may not fit neatly within existing political and institutional structures. The government may question their legitimacy, for example, whether such initiatives are representative and accountable to local communities (Van Meerkerk, 2019). Increasing social acceptance through framing issues in ways that emphasize societal importance, align with local culture, or connect with prevailing political ideologies can enhance cognitive legitimacy (Suddaby et al., 2017). This, in turn, may strengthen the financial and administrative support of local governments for collaborative planning practices.

Conclusion

This chapter has examined the limitations of communicative and agonistic approaches to collaborative planning, particularly when applied beyond Western liberal-democratic contexts. While the communicative approach emphasizes inclusiveness, equality, and power neutralization, the agonistic approach focuses on agonistic forms of conflicts, multiple forms of expression, and power struggles (Lin, 2023). Both approaches fall short in providing guidance for planning practice in diverse contexts and changing digital environments. I argue that collaborative planning theory should move beyond the communicative–agonistic divide, engaging with the complexity of institutional contexts, power relations, and digitally mediated public spheres. The theory can be enriched by studies on CPRs regarding institutional design and how different types of rules shape, enable, and constrain actors’ behavior (Ostrom, 1986). A multidimensional view

of power that includes power sources (authority, resources, and discursive legitimacy), power arenas (participation, process, and content), and various forms of network power can help to reveal power dynamics (Castells, 2011; Purdy, 2012). The concepts of framing and discursive opportunities further illuminate how conflicts, collective identities, and legitimacy are constructed and contested within increasingly fragmented public spheres (Koopmans & Olzak, 2004; Li et al., 2024a). While digital technologies, particularly social media, have facilitated new forms of communication, mobilization, and contestation, they also create micro-publics emphasizing thematic discussions among groups with similar interests, resulting in fragmented public spheres (Bruns & Highfield, 2015). In short, collaborative planning can be understood as an ongoing, situated practice of negotiating power, values, and rules in complex and evolving socio-political environments. Future research should continue to investigate how planners, civil society actors, and governments navigate these shifting terrains, and how diverse institutional contexts and digital platforms interact in shaping participation and legitimacy.

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4 Conceptualizing Chinese Collaborative Planning in the Digital Era

Institution Design, Power Relations, and Public Spheres

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Institution Design

Problem-Oriented Institution Innovation

Collaborative planning or governance is an approach to address complex or wicked problems, such as urban regeneration, water pollution, and environmental degradation. These problems cannot be solved by any singular organization due to fragmentation, uncertainty, and policy spillover effects (Baird et al., 2019). They are characterized by a high degree of wickedness caused by limited information or knowledge, and the involvement of diverse actors with diverging or conflicting interests and perceptions (Klijn & Koppenjan, 2016). There may be no consensus on what the problem is and what the goal should be, and no objective way to determine what constitutes a good decision (Innes & Booher, 2018).

In the Chinese context, deliberative and participatory practices have emerged to address complex or wicked problems, which are often embedded in specific governance contexts. As He and Warren (2011) point out, deliberation in China is limited in scope and typically addresses specific governance problems at the local level, such as social and environmental challenges. Urban regeneration, for example, has encountered issues including social and spatial fragmentation, competing interests, intricate property-rights systems, inequality, and social conflicts (Li et al., 2025; Zhou et al., 2025a). Environmental problems such as the water pollution crisis are often wicked problems due to the lack of effective coordination among diverse actors operating across different levels, sectors, and jurisdictions. These problems cannot be resolved solely through technocratic solutions or hierarchical institutional arrangements (Zhou et al., 2025b). They exceed the capability of any single government sector relying solely on command-and-control mechanisms. As a result, both formal and informal institutional innovations have been developed and tailored to address these diverse governance challenges. The state issues new participatory policies and delegates certain powers to local authorities to formulate specific policies, conduct experiments, or develop solutions to address these governance problems. These institutional innovations have emerged at both national and local levels, and their design is shaped by the nature of problems, the intended goals of innovation,

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the political and institutional context, and the government's interest in gathering information and selectively empowering citizens.

Urban regeneration problems include displacement, unfair compensation, and conflicting interests between residents, governments, and developers over economic benefits and the protection of cultural heritage in urban redevelopment or micro-regeneration projects (Lin, 2025). In case studies such as the regeneration of Enning Road in Guangzhou, alliances between governments and private sectors have also emerged, seeking to maximize economic interests or reinforce state power. These problems can lead to social unrest. Institutional innovations in urban regeneration, therefore, emphasize participatory mechanisms to engage local communities in the planning and/or implementation stages. For instance, co-creation workshops were introduced in the Enning road regeneration not to resolve conflicts entirely, but to mitigate them and enhance legitimacy (Zhou et al., 2025a). In some cities, such as Beijing, the community planner system has also been introduced to mediate between local governments and residents. However, the mediating role of community planners remains contested, as many are employed by or financially dependent on local governments, which may compromise their neutrality and reduce their capacity to represent community interests (Li et al., 2025). Some problems in urban regeneration also relate to public goods, such as inadequate public facilities and deteriorating public spaces in local communities. Examples include the community garden movement for upgrading public facilities and green spaces in old residential communities in Shanghai and other Chinese cities. While the scope of participation is broad in such initiatives, and civil society organizations often play an active role in bottom-up initiatives, financial and political support from local governments remains essential.

Environmental problems often concern common-pool resources and display characteristics of wicked problems. A typical example is the River Chief System (RCS) implemented in many Chinese cities and regions. Traditional top-down approaches often fail to address water pollution issues caused by rapid economic development. First, it is difficult for governments to get accurate and timely information on water pollution. Second, there are conflicts of interest among different levels and sectors of governments, the private sector, and societal actors. The issues often span multiple administrative levels—national, regional, and municipal—yet decentralization and political fragmentation hinder effective solutions. Third, water issues are often interconnected with broader concerns such as regional economic development and the water management systems of upstream and downstream communities. Sectoral or small-scale approaches are insufficient. To address such complex problems, new institutional arrangements like the RCS have been created. The system represents a state-led attempt to solve complex water governance challenges, including cross-departmental issues arising from conflicting bureaucratic interests, cross-level problems driven by local officials' rent-seeking or growth-focused activities, and cross-jurisdictional challenges due to limited authority and weak enforcement mechanisms for water management agencies in participatory decision-making (Wang & Chen, 2020; Zhou et al., 2025b). While the RCS formalizes responsibility and has improved surface water

quality in some cases, such as Xiamen, it still faces major limitations in fostering meaningful collaboration, especially between governmental and societal actors.

Two Levels of Institutional Design

Collaborative planning theory emphasizes institutional design to support horizontal collaboration among the state, the market, and society. According to [Healey \(2006\)](#), collaborative planning efforts involve two types of institutional design: (1) hard infrastructure, referring to the design of political, administrative, legal, and planning systems that define rights, duties, resource allocation mechanisms, performance criteria, and competencies; and (2) soft infrastructure, involving individual efforts around stakes, arenas, routines, discourses, and the nature of agreement. However, this mode of institutional design reflects democratic contexts and pays insufficient attention to vertical or hierarchical collaboration and the characteristics of collaborative planning in authoritarian contexts.

In China, institutional design for collaborative planning is heavily shaped by “authoritarian deliberation”. Deliberation, which is considered a mode of communication to influence decision-making through persuasive argumentation, is used to co-opt dissent and maintain social order, generates information about society and policy, and increases transparency at the local governance level, without regime-level democratization ([He & Warren, 2011](#)). Local governments adopt participatory policies and mechanisms not only to mitigate conflict and enhance social stability but also to improve governance performance ([Zhou et al., 2025a](#)). Political resources for participation include voices, rights, protests, and accountability mechanisms. However, participatory and deliberative practices are typically restricted to selected topics with limited scope and constrained empowerment ([He & Warren, 2011](#)). Public reasoning is also shaped by political techniques, such as informal meetings held before formal deliberations and door-to-door visits by local officials ([He & Wagenaar, 2018](#)). Societal actors may resort to protests and mass mobilization when formal institutional channels are lacking, but such activism is tolerated only when it does not threaten regime stability.

Nevertheless, the political concept of authoritarian deliberation primarily addresses the state-society interface, with little attention to the impact of hierarchical relations among multi-level governments on participation and collaboration. The Chinese political and administrative system is largely defined by principal-agent relations and hierarchy interventions. [Wang and Chen \(2020\)](#) identify three core features of the Chinese top-down system: Centralized political authority, party-state hierarchy, and the cadre responsibility system. [Zhou and Lian \(2020\)](#) describe how the national government, as the principal, sets policy incentives and performance evaluations for low-level officials, who act as agents. They identify three forms of hierarchical interventions in collaborative governance: Rule-setting for collaboration formation, performance evaluation to enforce commitments, and direct involvement to mediate disputes. Superordinate government defines rules, establishes collaboration scopes, composition, and institutional structures, and shapes legitimacy and narratives. However, these interventions vary by context

and influence three collaborative dynamics to different degrees: Principled engagement, shared motivation, and capacity building. This hierarchical political system is often used to facilitate cross-departmental, cross-level, and cross-jurisdictional collaboration to address complex environmental problems on a large scale.

Accountability is a central concern in both horizontal and vertical collaboration. Public administration and governance scholars have questioned the accountability of voluntary collaborative arrangements. [Cristofoli et al. \(2022\)](#) argue that collaborative governance often lacks clear responsibilities for actors and that it is difficult to enforce sanctions within relatively self-regulated arenas composed of appointed participants. They emphasize that, to ensure accountability, there should be clear rules governing actors' duties, rights, and responsibilities. Some scholars highlight the need for mandated collaboration that specifies membership, leadership, designates decision-makers, and establishes performance and accountability mechanisms ([Bryson et al., 2015](#)). However, [Afandi et al. \(2023\)](#) argue that, without formal horizontal accountability mechanisms, public agencies can act strategically in mandated collaboration as well. In the Chinese context, while hierarchical political and administrative systems are actively used to shape collaborative practices, the accountability of these practices remains questionable. For instance, in the RCS, local regulations formally specify the responsibilities of public departments, but disputes over the division of responsibilities often arise. Public departments may shift blame in response to citizen complaints, leaving collaboration dependent on higher authorities' intervention ([Zhou & Dai, 2023](#)). Moreover, although the RCS establishes strong vertical accountability through target-based performance evaluations and inspections, its horizontal accountability mechanisms, such as citizen supervision, remain largely symbolic and ineffective ([Zhou et al., 2025b](#)). The lack of open deliberative platforms and the absence of formal sanctions for non-compliance among government-society collaborators contribute to persistent accountability deficits in the system.

In short, two interrelated levels of institutional design are essential for collaborative planning in China:

- *Vertical relations:* This involves principal-agent or hierarchical relationships among different levels of government. It is essential to set up clear rules, policy incentives, inspections, and performance evaluation for responsible agencies, clarifying the roles and responsibilities of principals, supervisors, and agents. An effective accountability system can be established with well-defined rights, duties, rewards, and sanctions. High-level authorities can use these mechanisms to enforce multi-level and intergovernmental collaboration, and to exert pressure on low-level governments to promote horizontal collaboration among governments and societal actors, including the expansion of citizen participation channels.
- *Horizontal relations:* Horizontal relations exist among governments, private sectors, civil society, citizens, and other actors. These relations can be promoted through more bottom-up initiatives or experimentations led by professionals, civil society, and local communities, with the support of local governments.

Citizen participation is necessary to address complexity, as citizens can provide additional information to understand the problems, help identify solutions, and enhance the legitimacy of the government's decisions. It is also crucial for citizens to express their voices and contribute to conflict mitigation. Leadership by elites, such as low-level public officials, planning professionals, or civil society, may help bring various actors together and mobilize resources. However, accountability can be a challenge, as formal regulations often do not clearly define the roles and responsibilities of different actors at this level. Informal accountability can be strengthened through mutual trust, shared values, informal norms, and reciprocity. Reflective dialogue and learning processes involving both governments and societal actors can facilitate rich information exchange, new insights, and constructive feedback. To enhance governmental accountability, improving accessibility and readability of information for societal actors is essential, alongside establishing open, inclusive forums for deliberation and enforcing mechanisms, such as moral commitments and social pressure.

These two levels of relations manifest to a different degree in diverse collaborative practices. For some collaborative practices, such as RCS, vertical relations are essential, and they also leverage collaboration at the horizontal level. Since river pollution issues span different municipalities, districts, and villages, territorial relations are also important for addressing complex water problems. For other practices, such as co-creation activities in urban regeneration and community garden development, horizontal relations are more prominent, though they may also be influenced by vertical relations through policy incentives, subsidies, guidance, or indirect interventions.

Institutional Design and Rules

Institutional design refers to the devising or changing of rules, procedures, and structures that enable and constrain the behaviors and actions of actors to address diverse, complex planning and governance challenges. It is shaped by the nature of problems at hand, the political system, and specific local contexts. Particular institutional arrangements may prioritize certain types of rules: Position, authority, aggregation, information, boundary, scope, and pay-off rules (Ostrom, 1986). Yet, rules for agenda-setting and the stages of deliberative intervention can also significantly influence collaborative planning processes and outcomes (Li et al., 2024b; Zhou et al., 2025a). The following features characterize institutional design for collaborative planning in the Chinese context.

- *Tailoring to specific problems:* Institutional design is often adapted to address particular challenges. The mechanisms for deliberation and the scope of participation depend heavily on the complexity of the problems and the local context. They also hinge on whether governments need additional information from citizens and local knowledge, whether such mechanisms can enhance governmental legitimacy and performance, and whether local governments possess the

administrative and financial capacity to mobilize actors and resources. More participatory approaches with greater empowerment tend to be adopted to address complex problems at the community level, while more symbolic forms of participation with strong governmental control are often used for complex problems at broader spatial and administrative scales. Yet, local officials may be motivated not only by instrumental considerations (for problem-solving) but also normative values, including a sense of moral responsibilities of ruling elites to govern for the common good, an ethos deeply embedded in Chinese political culture.

- *Institutionalized experimentation:* Local experimentation with deliberative and participatory practices often emerges to address specific local problems. While initially localized, successful experiments, when endorsed by political leaders and embraced by citizens, can be scaled up to other cities and form the basis for new national policy and regulatory frameworks. When deliberation becomes routine, it tends toward institutionalization.
- *Formal and informal rules:* Formal rules related to the planning systems, participatory mechanisms, and policies are established by national, regional, municipal, and district governments. Embedded within overarching national institutional frameworks, local regulations are adapted to context-specific needs and vary widely across cities or regions. These formal rules define procedures and participants, and allow sources of power. Informal rules, by contrast, are shaped by local cultures, social norms, shared values, and social trust, influencing the scope of participation and the degree of citizen power. Informal participation mechanisms based on self-organization, social networks, and trust can complement formal institutions.
- *Role of public administrators:* Political leaders and governmental departments are key actors in designing and implementing formal institutional arrangements. The support of the Chinese Communist Party Committees (CCP) and local governments is essential in many collaborative practices. Hierarchical political systems, principal-agent relations, and cadre responsibility systems provide the basis for mandated collaboration across city, regional, and national levels. Local governments play a leading role in making local participatory policies, allocating resources, defining deliberative procedures, duties and rights, selecting participants, and setting the agenda. Administrative and financial support from low-level entities, such as street offices and residential communities, is essential for sustaining bottom-up initiatives.
- *Authority rules:* When conflict cannot be solved through aggregation rules and deliberative practices, authority rules may prevail. In such cases, political leaders or government agencies make final decisions within their defined areas of responsibility. Yet, it is easy for public authorities who have strong administrative and political resources to control and manipulate the participatory process to serve their purposes.
- *Boundary and participation rules:* In areas like environmental governance and community regeneration, which are frequently related to common-pool resources or public goods, it is important to clearly define geographical boundaries

(e.g., a city or community) and identify the participants who have a legitimate stake in the planning practice. While public authorities can decide who participates and who cannot in formal planning practices, unexpected participants may also emerge through informal participation.

- *Agenda-setting and stages of intervention rules*: Rules about who sets the agenda for deliberation and at what stage deliberation occurs are crucial to collaborative planning. Agenda-setting defines who can initiate deliberation, which topics are open for discussion, and through which mechanisms deliberation takes place. In China, the government generally retains strong agenda-setting power, often predetermining or constraining which issues can be deliberated in which stages of formal planning processes. Yet, civil society actors and professionals may strategically leverage informal participation, such as through social media and other digital platforms, to shape public discourse and introduce a new agenda, for instance by advocating migrants' right to the city.
- *Position, pay-off, and scope rules*: Unclear pay-off and scope rules can lead to accountability issues. Specifying the position rules, including the roles and responsibilities of actors (e.g., governmental agencies, planning professionals, and societal actors), the associated benefits and costs of their actions, and the intended outcomes is critical for establishing an effective accountability framework.
- *Information rules*: Some issues require substantial input from citizens or civil society, while others do not. The formats of information, whether online or offline, and whether open or closed, depend on the nature of the problems and the willingness of governments to share information. However, grassroots participants can also access and disseminate information informally through digital platforms.

Power Relations

Actors, Power Sources, and Arenas

The communicative approach to collaborative planning theory emphasizes interactions among the state, the market, and civil society, assuming relatively equal power among actors in the communicative process (Healey, 2006; Innes & Booher, 2018). However, this perspective has received substantial criticism, as power is inherently embedded in political-economic structures and contexts (Fainstein, 2015). In the Chinese context, achieving power neutralization is particularly difficult due to the persistent asymmetries in power relations between governments and societal actors. For a long time, the Chinese government has dominated in urban development processes. Only in recent decades has economic reform facilitated the rise of the private sector and the emergence of civil society. Formal civil society organizations often maintain complex relationships with government agencies, while informal ones increasingly emerge through digital platforms (Lin, 2025). In response to growing social tensions and the practical demands of planning, local governments have increasingly encouraged the participation of communities and

civil society organizations, particularly in addressing complex problems that require local knowledge or public support. As a result, more diverse forms of power relations now exist among governments, planning professionals, the private sector, civil society, and citizens. These dynamics remain far removed from the ideal of power neutralization assumed by conventional collaborative planning theory. To understand these evolving dynamics, it is necessary to clarify what power entails, through which means or resources it is exercised, and how power relations manifest among different actors.

In general terms, power can be defined as the capacity of actors to mobilize means to achieve specific goals (Avelino et al., 2023). This definition acknowledges that power is both enabling and constraining; an actor's capacity at one level may entail incapacity at another (Hayward & Lukes, 2008). Purdy (2012) identifies three sources of power: Discursive legitimacy, the ability of an actor to represent a discourse in the public sphere; authority, the right to exercise judgment, make a decision, or take actions; and resources, such as finance, technology, and knowledge. Power can also exist through networks generated by infrastructure and platforms, such as social networking sites. Castells (2011) identifies four types of network power: Networking power, the power of core actors over those outside the network; network power, resulting from the rules required to coordinate interactions within the network; networked power, the power of one actor over other actors within the network; and network-making power, the ability to create and switch different networks. Actors can establish their power positions by forming a network that accumulates, exchanges, or shares various resources, such as information, knowledge, and finance. In collaborative planning in the Chinese context, the government, the market, and civil society often have different power sources, and their power relations are also shaped by their individual features and specific contexts (Li et al., 2024b).

- *Diverse actors:* Governmental agencies at different levels often hold varying interests and agendas. However, China's hierarchical political system enables upper-level governments to intervene and assert mandates in urban planning with relative ease. While the government maintains a strong capacity to control participatory and deliberative processes through institutional, financial, and technical means, market parties and societal actors can still exert different degrees of influence in many collaborative practices. The private sector plays a significant role in urban development and redevelopment, whereas state-owned enterprises often hold advantages in accessing and implementing critical infrastructure projects. Residential committees and street offices are key actors that can mediate between governments and societal actors, providing support for collaborative efforts tailored to specific needs at the community level. Civil society also plays an important role in shaping interactions and contestation between the state and the public, particularly in areas such as cultural heritage preservation and environmental protection. However, it may be overly optimistic to speak of a robust civil society in China, as many formal organizations maintain close relationships and build trust with government actors to survive, hindering their impact on policies and practices. Informal organizations

have increasingly emerged through digital platforms and may challenge existing power structures. Hybrid organizations, composed of members from local communities, media, enterprises, and governments, may be formed to mediate diverse interests and mitigate conflicts. Additionally, planners act as mediators between various actors, though their roles and influence are far from neutral. Their responsibilities and positions are shaped not only by institutional contexts and resources but also by their own capabilities, skills, professional values, and interests.

- *Different power sources:* The ability of actors to influence decision-making largely depends on their sources of power. In the Chinese context, governments possess strong authority and resources. Higher-level governments often leverage political, administrative, and financial resources to set agendas for deliberation and mobilize low-level governments and societal actors for collaborative practices. The private sector, such as developers, frequently reinforces its influence through financial capital. Landowners and property owners, such as individual households, use land or housing as critical bargaining resources in the negotiation processes. Civil society, journalists, professionals, and citizens, including marginalized social groups, often utilize the Internet and social media to create a networked public sphere. The digital space facilitates public debates and enhances discursive legitimacy, which can influence offline decision-making processes.
- *Personal preferences and capabilities:* Personal preferences and capabilities, shaped by actors' backgrounds, ambitions, values, and leadership, significantly influence behaviors and actions in collaborative planning processes. For instance, political leaders with more open attitudes and aspirations for performance or promotion may support institutional innovations, such as co-creation committees and new participatory experimentations. Planners' strategies are shaped by their technical expertise, issue-framing skills, agenda-setting capabilities, and abilities to navigate both online and offline platforms to mediate power relations. While planners are often expected to uphold normative values like inclusivity and equity, they may also be guided by rational-centered values, including cost-benefit calculations like financial returns, as well as effectiveness-centered values, such as emotional attachments to place. Similarly, members of civil society organizations and journalists may emphasize their professional values, such as the preservation of cultural heritage, or the rational-centered values related to their career development, which can lead to overlooking the economic interests of residents.
- *Leadership:* Leadership plays a crucial role in shaping institutional design and collaborative governance. Political leaders typically hold formal authority and can initiate or legitimize collaborative arrangements, especially when their goals align with high-level mandates. However, leadership can also emerge from third parties such as civil society actors, journalists, and professionals, especially in bottom-up initiatives supported by digital platforms or community networks. In some contexts, these actors gain power through social networking sites by disseminating information, shaping public debates, setting agendas, and organizing symbolic performances, while they may also have close relations with local authorities, negotiated informally, and influence offline decision-making.

- *Power arena and strategies:* Power operates through both visible and invisible mechanisms. Actors can exercise power in formal arenas, such as government-organized consultation meetings, official planning and design workshops, and public hearings. These spaces often feature limited participation, with the agenda tightly controlled by the state or dominant actors. Power is also exercised in informal arenas, such as social media discourse, public performances, and exhibitions, which allow civil society actors, professionals, and residents to influence narratives and assert claims in more creative or indirect ways. Informal arenas can serve as crucial spaces for negotiating hidden conflicts and facilitating an alternative agenda. Whether actors can challenge existing power structures depends largely on the strategies they adopt and the arenas in which they operate. In formal arenas, they often draw on institutional authority, technical expertise, or bureaucratic alignment to exert influence. In contrast, informal arenas provide more flexible and symbolic strategies, such as reframing narratives, mobilizing public sentiment, or building coalitions through digital platforms and community networks.

Various Types of Power Relations

Different actors possess distinct power sources and individual capabilities, shaping various forms of power relations. These relations are also conditioned by diverse contexts. The formation of a specific form of power relations can be influenced by the nature of problems within particular planning domains. Actors' behaviors and actions are also enabled and constrained by both broad institutional contexts (e.g., national policies, the political system, and culture) and diverse local contexts (e.g., local policies, participatory mechanisms, socioeconomic, spatial, and environmental conditions) at the region, city, or community level. The degree and scope of citizen participation, as well as the level of citizen power, vary depending on the problems at hand and are influenced by formal and informal institutions. Several types of power relations can be identified in Chinese collaborative planning.

- *Asymmetric power structures:* To address complex problems such as water pollution and other environmental issues at the city, regional, and national levels, mandated collaboration is often adopted, typically characterized by asymmetric power relations. For instance, the RCS relies on mandated collaboration, emphasizing government leadership in exercising authority, mobilizing resources, and using the hierarchical political system to strengthen both vertical and horizontal collaboration at large scales. While citizens may participate by providing additional information to understand the problems, their power in decision-making is usually limited, as the government dominates the process. Asymmetric relations also appear in urban regeneration and other planning contexts, where the state may strategically engage private actors who have strong financial resources to achieve its political and economic objectives. Citizen power in these settings varies with local policies, cultures, and media freedom, but overall, opportunities for deliberation remain limited, and citizen empowerment

is constrained by the uneven distribution of resources between government and society. A key challenge of this form of power relation is ensuring accountability of both governmental and private actors.

- *More sharing of power:* Governments, private sectors, civil society, and local communities sometimes engage in more sharing of power, particularly in collaborative planning that tackles complex issues at the community level. Examples include the regeneration of “old and dilapidated neighborhoods”, which involves diverse interest groups, complex property rights, and the upgrading of community gardens and public facilities that directly affect residents’ quality of life. Bottom-up initiatives may be led by civil society organizations, who mobilize participants, secure financial resources, share knowledge and experiences, and advocate practices through professional networks and online/offline channels. Yet, government support remains essential to confer legitimacy and provide land, financial, and administrative resources for implementation.
- *Network power:* Civil society, journalists, professionals, and citizens can use the internet and social media to gain network power, challenging existing power structures. Elites such as planning professionals, journalists, and civil society often operate across both online and offline networks, ranging from large-scale networks generated by social networking sites to strong professional, political, and civic connections in face-to-face settings. As key actors in different networks, they gain networking power, which is the power of core actors over those outside the network. With many connectors online, they can also spread messages about planning issues or ideas to wide audiences. Through transmitting information in networks and influencing public opinions, they gain networked power and play a more influential role in planning processes. Some also gain network-making power, as they act as “switchers” between online and offline networks, connecting online public debates with offline governmental decision-making. For instance, they may use offline networks to gather resident opinions and information, and transmit the online debate to the general public by switching between new and old media. The open nature of online networks also allows some ordinary citizens to become key nodes, gain networked power, and emerge as influential actors in collaborative practices. While governments may be less active in shaping networked power, they can still impose content moderation rules, algorithmic preferences, and discursive norms on online platforms, thereby excising network power.

Public Spheres

Fragmented Public Spheres and Micro-Publics

A key assumption of the communicative approach to collaborative planning is that rational communication takes place in the public sphere. Habermas (1989) conceptualized the public sphere as a space separated from both the economy and the state, in which citizens gather to debate matters of common concern. It

emphasizes the ideals of openness, egalitarianism, and inclusion. The communicative approach thus concentrates on consensus building, i.e., selected representative stakeholders engage in face-to-face, long-term dialogue to address controversial issues by collectively defining problems, negotiating interest differentials, and finding solutions (Innes & Booher, 1999). However, the universality of this ideal has been questioned. Mouffe (2013) argues that the Habermasian model underestimates the inevitability of power struggles, conflict, and exclusion. She advances the notion of the agonistic public sphere, a space where conflicting points of view are confronted without any possibility of a final reconciliation. Both approaches, however, remain largely tied to institutionalized forms of democracy, which are deliberative or agonistic.

In China, the debate over the existence and meaning of public spheres has grown since the 1990s. Scholars argue that there is a co-evolution of the Internet and the public sphere, which functions as a forum for public expression and discourse, social interaction, collective identity building, and popular protest (Shao & Wang, 2017; Yang, 2003). This emerging public sphere is linked to the networked public sphere, emphasizing its decentralized, interactive, and connective characters (Friedland et al., 2006; He et al., 2024a). Within planning, the networked public sphere extends dialogue into online arenas where information exchange, public debate, and power conflicts take place. With its wide user base, social media is a key tool for shaping this public sphere. Social media enables individuals and groups to communicate in real time through many-to-many communications, mobilize debates, and voice criticism of planning decisions, while also offering governments new tools to monitor sentiments, control narratives, and gather feedback and information (Lin, 2022).

Yet digital public spaces in China are fragmented, shaped by both censorship and dynamic state-society relations. Shao and Wang (2017) describe how multiple tensions between participatory democracy, journalism transformation, and governmental authority produce fragmented public spheres. Different social groups pursue divergent interests, and public conversations shift with the agenda and issues. Citizens, government, and journalism interact with each other not only through cooperation but also through conflicts and contestation. The fragmented and dynamic nature of digital communication has led to the proliferation of public sphericules and micro-publics (Bruns & Highfield, 2015). Public sphericules address particular thematic debates among small groups of participants rather than the broader public discourse of an entire domain (Bruns & Highfield, 2015). While they can influence planning discourse, they also risk exclusion, i.e., stakeholders not engaged in these micropublics may be marginalized from the debate. Importantly, fragmentation is not unique to authoritarian contexts. Even in democratic settings, digital public spheres are vulnerable to manipulation (e.g., misinformation campaigns), constrained by digital divides, and shaped by offline hierarchies of power (Mattila & Nummi, 2022). Nevertheless, fragmented publics can serve as counterpublics, mobilizing dissent and challenging dominant planning discourses, particularly when marginalized voices are ignored in formal planning arenas (Mattila & Nummi, 2022). In China, the fragmented features of digital public spheres and

their interactions with offline public spheres have directly affected collaborative planning practices.

- *Different degrees of state control:* Censorship and control vary across topics. Some topics, such as environmental activism, are subject to strong censorship and state control. By contrast, discussions on relatively non-sensitive issues (e.g., community garden) or planning practices supported by national policies (e.g., cultural heritage conservation or micro-regeneration) are tolerated and even encouraged, as they do not challenge regime stability, provide feedback loops that help central authorities monitor local governance, and enhance governmental legitimacy.
- *Micro-publics for thematic debates:* Small groups of citizens, professionals, and civil society form virtual communities to facilitate thematic debates, such as cultural heritage preservation and environmental protection. They share similar interests on particular topics and shape discourse to influence planning processes. However, this also means that those who are not part of these micro-publics are excluded from online discussions. This exclusion becomes more problematic when residents, as stakeholders, are unable to participate in online debates.
- *Informal participation:* Beyond state-organized forums, citizens, journalists, and professionals use social media and the Internet for informal participation, questioning planning decisions, sharing information, and mobilizing public opinion outside formal channels (He et al., 2024b). Such horizontal networks enable rapid information exchange, amplify marginalized voices, and challenge hierarchical decision-making. In particular, social media creates opportunities for actors typically excluded from formal participatory processes. Yet the transformative potential of such informal participation is constrained by issue sensitivity, the planning stage, and local contexts.
- *Online and offline interactions:* Digital debates often interact with offline arenas. Civil society actors, professionals, and elites may translate online discussions into formal petitions, protests, or consultations, while governments sometimes incorporate online feedback into official planning. Conversely, offline mobilization can also be amplified online, broadening its visibility and impact.

Discourse, Framing, and Legitimacy

In authoritarian contexts, governments or their agencies often control the boundaries of public discussion by predefining topics, framing questions, and structuring participatory activities. Discourse is not only a medium of expression but also an instrument for negotiating and reshaping power. Offensive or politically sensitive messages may be deleted under censorship rules, curtailing open deliberation. However, digital technologies and social media also open spaces where grassroots participants can raise their voices, frame planning issues differently, and thereby exert discursive power. Frames that achieve visibility (through media coverage and online dissemination), resonance (by aligning with cultural values and collective identities), and legitimacy (by being seen as sensible or authoritative) are

more likely to shape planning outcomes (Li et al., 2024a). Conversely, frames that fail to resonate may be marginalized. This dynamic highlights that legitimacy in planning is not static or only institutionalized, but it can also be discursively constructed through framing strategies. In authoritarian contexts, discursive legitimacy becomes critical for societal actors. When formal participation channels are constrained, the ability to frame planning issues effectively in digital and informal spaces often determines whether grassroots concerns can influence decision-making.

- *Framing as strategy*: Framing refers to the process of constructing interpretative schemes that define problems, identify responsible actors, and propose solutions (Benford & Snow, 2000). In planning conflicts, frames function as “storylines” or condensed narratives that justify certain actions, values, and identities. A collective action frame motivates mobilization by linking an issue to shared grievances, values, or aspirations. For instance, planning activists may frame a redevelopment project as a threat to cultural heritage, while governments may frame it as an opportunity for modernization. Competing frames thus constitute the discursive battlefield of planning. In China, societal actors often adopt careful framing to avoid censorship while still mobilizing support. Heritage activists, for example, may frame their campaigns in terms of cultural values rather than overt political critique, thereby maximizing emotional appeal, fostering public identification, and extending communicative reach to resonate with wider audiences. Framing strategies, such as storytelling, symbolic imagery, and culturally resonant messaging, are frequently used to mobilize broader support and enhance visibility. Policymakers likewise employ frames strategically, such as by emphasizing modernization, economic growth, or social stability, to consolidate political legitimacy and mobilize resources.
- *Framing for legitimacy*: Frames influence not only how issues are perceived but also whether they are granted legitimacy in public debate and policymaking. Effective frames can enhance the political legitimacy of collaborative practices when they align with state authority, policies, and formal procedures, as well as cognitive legitimacy, when they resonate with dominant knowledge systems and gain broader social acceptance. For instance, planning activists or civil society groups frame their commitment to the social benefits of cultural heritage or community gardens to gain wider societal support and even government endorsement. In the digital public spheres, the visibility, resonance, and credibility of frames can accumulate quickly, granting discursive legitimacy to activists and challenging decision-making. The construction and maintenance of discursive legitimacy can thus reshape power relations in planning practices.
- *Framing and opportunity structures*: Opportunity structures are emerging properties of interactive relationships between contending actors’ framing strategies (agency) and the contextual systems in which they assert their claims (structure) (Li et al., 2024a). Framing strategies may be used by key actors; for instance, governments and activists deploy storylines to justify how heritage is perceived and managed. These strategies are linked to certain identities, values, or interests

of actors. Whether these frames resonate depends heavily on opportunity structures, such as supported policies, media openness, or shifting public sentiments. National and local political, economic, cultural, and social conditions can create opportunities or barriers for framing certain planning issues.

Conclusion

In the Chinese context, collaborative planning practices are primarily adopted as pragmatic instruments to address growing complexities in local governance. While they contain normative dimensions, such as moral concerns of local governments, they are less about advancing ideals of democracy, equality, or inclusion, and more about addressing complex problems, sustainability challenges, policy fragmentation, and social stability. The criteria guiding their evaluation thus include harmony, stability, and sustainability, with deliberation institutionalized to foster a harmonious society and preserve regime legitimacy (He & Warren, 2011; Lin, 2022). Beyond horizontal institutional design, institutional design for vertical and territorial levels is also essential for collaborative practices, especially those engaging diverse actors and crossing organizational boundaries to address wicked problems. Nevertheless, the instrumental use of collaborative planning should not obscure the importance of its communicative dimensions. As Tong and He (2018) argue, the selection of participants, agenda-setting, and deliberative themes crucially shape both the process and its outcomes. Understanding collaborative planning in China, therefore, requires probing the rationales behind governmental adoption: What specific problems are targeted, what the political purposes are, why particular institutional design options are chosen, whose values and interests are prioritized or marginalized. Collaborative planning processes may generate new institutional capital, such as social and political capital, and experimental practices may become institutionalized and transformed into policy. Yet deliberative processes may have limited influence on planning outcomes (Zhou et al., 2025a). Attention should also be paid to preconditions, such as local political contexts, land policies, existing power structures, and spatial conditions, which shape planning processes and outcomes.

The recent digital transition has further completed this landscape. Social media and the Internet do not create an ideal Habermasian public sphere, but rather a mediated and contested arena in which governments and societal actors continuously negotiate influence. New forms of power inequality emerge in these networked and fragmented public spheres, as actors with networking and digital skills, superior resources, or institutional connections gain visibility, agenda-setting capacity, and influence. While online mobilization may reframe planning discourses, its transition into policy changes often depends on intermediaries, such as civil society organizations and professionals, who connect online debate with offline arenas. These dynamics shape not only whose voices are amplified, but also how legitimacy is constructed and dissent articulated. The digital public sphere in China is therefore selectively porous: Discourse is permitted within controlled limits, reinforcing certain voices while silencing others. Collaborative planning must thus account for how digital technologies enable new discursive strategies, participation

forms, and how they reshape power dynamics. While the role of planners is shaped by institutional contexts and individual features, they can also use digital platforms to facilitate discourse and framing, challenging existing power relations and decision-making processes.

In conclusion, collaborative planning in China should be understood as a hybrid practice that combines authoritarian deliberation, multiple-level institutional design, asymmetric power relations, and fragmented public spheres to address increasing governance complexities. Power relations are not only shaped by broader technical and socioeconomic changes and national contexts, such as the political system, legal frameworks, and informal institutions, but are also influenced by the material aspects of local contexts, such as socioeconomic, environmental, and spatial dimensions (Lin, 2025). At the same time, institutional design and discourse in the public sphere can reshape power dynamics, as well as planning processes and outcomes. Collaborative planning produces new institutional capital and problem-solving capabilities, but its effectiveness and legitimacy largely rely on how institutional rules, power dynamics, and communicative arenas interact. Rather than applying Western normative ideals wholesale, this chapter argues for a context-sensitive conceptualization of collaborative planning, acknowledging its instrumental rationales, digital transformations, and complex negotiation of legitimacy in authoritarian contexts.

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Part 2

Collaborative Planning Practices



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5 A Comparison of Institutional Design of Collaborative Governance in China

Xiaomeng Zhou

Introduction

China's rapid economic growth and urbanization have precipitated a surge in complex social conflicts and severe environmental pollution. In two key domains, urban regeneration and water management, many complex issues, often termed “wicked problems”, have emerged that public agencies struggle to address on their own. These wicked problems are typically characterized by high levels of uncertainty, intricate interdependence, and the involvement of diverse actors with often conflicting values and interests. The increased activism, protests, and civic petitions related to urban redevelopment and environmental pollution have become a source of social unrest, which poses a threat to social stability and places significant pressure on the government to explore new governance approaches that transcend traditional top-down models (Cheng, 2013).

In response, China has witnessed an increase in collaborative governance practices that engage non-state actors, particularly citizens and other societal actors, in public affairs, supported by a series of new institutions at both central and local levels. At the national level, two key laws—the Law of the People's Republic of China (PRC) on Environmental Impact Assessment (2002) (EIA) and the Law of the PRC on Urban and Rural Planning (2008) (URP)—mandate public participation in environmental governance and planning. The EIA law, for instance, stipulates that public opinions must be solicited when planning or construction projects involve public interest. It marks a shift in Chinese environmental law by providing a legal foundation for public participation and environmental information disclosure (Johnson, 2010). At the local level, provincial and municipal governments have developed regulations and guidance specifying procedures and methods for public participation in local public issues (Xu et al., 2024).

Nonetheless, collaborative governance in urban regeneration and water management operates under different institutional structures. This can be attributed to the instrumental logic of the government, which aims to resolve complex issues within different governance contexts. Urban regeneration typically grapples with localized, community-based conflicts involving property rights, relocation and compensation, living conditions, heritage preservation, and crucially, the distribution of redevelopment benefits among diverse stakeholders (Chen & Duan, 2022).

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Co-creation (Gong-Tong-Di-Zao, in Chinese) is an institutionalized collaborative planning approach in China's urban regeneration (Zhao et al., 2023). This approach is typically designed and organized by local planning professionals, such as planners and academics, with the support of related public departments (Gong et al., 2023). In addition, co-creation initiatives usually engage a varied range of actors through various communication methods, while the collaborative processes result in varied levels of impact (Li et al., 2020a; Zhou et al., 2025a). In contrast, water management confronts challenges that span broader geographical scales and policy scopes. These include complex ecosystem dynamics, transboundary resources distribution, unclear responsibilities for pollution, gaps in policy implementation, and systemic difficulties in intergovernmental collaboration (Jia et al., 2020). The River Chief System (RCS) represents an innovative collaborative governance approach in water management, designed and enforced by the central government (Liu & Richards, 2019). Consequently, the forms of collaboration under the RCS exhibit a high degree of uniformity across the country. Governments across different administrative levels, public sectors, and territories are the main participants, and formal meetings serve as the primary communication method (Wang & Chen, 2020). Additionally, the national RCS guideline stipulates that local governments should set up communication channels and information disclosure platforms to engage the public in water management, while levels of public participation vary in different regions (Wu et al., 2020).

Both the co-creation approach and the RCS represent new institutions enabling collaborative governance in China. However, there is a lack of understanding regarding how the institutional design of the two institutional innovations differ and the underlying reasons for these variations. This chapter aims to investigate the differences in the institutional design of collaborative governance approaches adopted in urban regeneration and water management in China. Through a comparative analysis, this study seeks to illuminate how and why distinct collaborative approaches are adopted in China and to identify their limitations, contributing to broader debates on the application of collaborative governance within an authoritarian context.

Addressing Different Governance Challenges through Collaborative Governance in China

Contemporary China confronts various complex issues in different governance contexts, which often exceed the capacity of its traditional top-down governance approach. In response, collaborative governance approaches are increasingly adopted to navigate these multifaceted issues, particularly in sectors of urban regeneration and water management (Liu & Xu, 2018; Wang & Ulibarri, 2025; Zhou & Dai, 2023b). Collaborative governance is a common mode of governing that spans various sectors, such as collaborative planning, regulation and administrative law, and natural resource management (Ansell & Gash, 2008). In this chapter, collaborative governance is broadly defined as

the processes and structures of public policy decision making and management that engage people constructively across the boundaries of

public agencies, levels of government, and/or the public, private and civic spheres in order to carry out a public purpose that could not otherwise be accomplished.

(Emerson et al., 2012)

Following this definition, collaborative practices in urban regeneration and water management are two specific applications of collaborative governance in China, each confronting different sets of governance challenges.

The challenges in urban regeneration primarily stem from the sheer speed of urbanization and the contentious issues of benefit (re-)distribution in redevelopment. Since 2004, the central government has issued strict policies for land acquisition to protect agricultural land, creating land shortage for sustained economic growth in many developed Chinese cities (Wu, 2018). To circumvent these strict rules on land acquisition, local governments introduced urban redevelopment policies, aiming to redevelop built-up areas with high economic potential. For example, in Guangzhou, the “Three Old’s Redevelopment” policy targeted the redevelopment of old villages, old urban areas, and old factories. Early top-down redevelopment models, characterized by wholesale demolition and resident relocation for commercial projects, often encountered significant public resistance. While residents demanded better compensation and more transparent planning processes, the demolition of historical buildings sparked concerns about heritage preservation among architects, planners, journalists, and citizens (Chen & Duan, 2022). These issues led to difficulties in land acquisition, which deterred private investment due to fragmented property ownership and ever-stricter heritage regulations (Zhang & Li, 2016). Consequently, many urban regeneration projects stalled for years, leaving the physical environment in “half-regenerated areas” to deteriorate due to aging infrastructure, negligent management, and continued dilapidation of old buildings, further intensifying social conflicts and inequalities (Chen et al., 2020). However, a persistent problem has been the lack of effective participation mechanisms for diverse stakeholders to communicate and reach consensus during regeneration processes. In response, there has been a growing shift toward collaborative planning in China’s urban regeneration. These collaborative practices often engage a diverse array of non-state actors, ranging from residents, businesses, NGOs, and technical experts. Some of these include deliberative mechanisms discussing various planning issues, such as the planning and design of regenerated areas (e.g., Liu & Xu, 2018), residents’ demands for public facilities and transportation (e.g., Yuan et al., 2021), and a common vision for preserving community history (Li et al., 2020a). Furthermore, the influence of these collaborative endeavors on the outcomes of urban regeneration is not uniform. While some co-creation initiatives can lead to more socially accepted planning outcomes (Hui et al., 2021), the level of actual power-sharing and public participation can vary considerably (Chen et al., 2023).

The field of environmental governance also faces significant challenges. The economic success in China came at a high environmental cost, with large-scale resource depletion and severe air and water pollution caused by heavy industry

([Bao et al., 2011](#)). A key issue is the highly centralized environmental governance model, which often results in substantial implementation gaps of centrally crafted policies at local levels. Because local bureaucrats are insufficiently motivated to fully comply with national environmental regulations when economic growth is prioritized in the national agenda ([Qi & Zhang, 2014](#)). This situation is exacerbated by local protectionism, where local governments pursue their own interests, often at the expense of environmental quality ([Lo, 2015](#); [Shen & Jiang, 2021](#)). In addition, although formal mechanisms like EIA mandate public involvement in environmental planning, their effectiveness is often hindered by restricted access to information, minimal public influence on decisions, problematic methods for gathering public input, and barriers to administrative litigation ([Enserink & Alberton, 2016](#)). Intergovernmental collaboration failures further compound these issues, particularly in water management. Departmental fragmentation and a paucity of coordination mechanisms hinder effective governmental responses to transboundary water challenges, given that water resources often transcend administrative and jurisdictional boundaries at a large geographical scale ([Mu et al., 2019](#); [Wang et al., 2017](#)). For example, when a river flows across different territories, the absence of clear distribution mechanism for allocating costs and benefits often leads to coordination deadlocks between upstream and downstream jurisdictions, alongside competition for freshwater and disputes over responsibility for pollution control and compensation ([Wang et al., 2017](#)). The ineffective environmental governance has triggered a rise in environmental activism, fueled by deteriorating environmental quality, growing public awareness of environmental quality and health consequences, and an expanding and evolving civil society ([Beeson, 2018](#)). This prompted the government to promote cross-boundary and multi-actor collaboration to tackle these complex, transboundary water governance challenges ([Chien & Hong, 2018](#); [Wang & Chen, 2020](#)). Notably, collaborative initiatives in water management are often driven by formal authority and intervention from higher authorities ([Zhou & Dai, 2023a, 2023b](#)). Concurrently, public participation in water management is structured by local governments through official channels, such as supervision hotlines, digital applications, and message boards on governments' websites, with varying levels of influence across different regions ([Wu et al., 2020](#)).

The instances of collaborative governance in China in the fields of urban regeneration and water management demonstrate distinct collaborative processes and outcomes, structured by different institutional arrangements. Public administration scholars contend that the appropriate institutional design of collaborative governance depends on the purpose of collaboration; they regard collaborative governance as a tool used by public managers to address complex policy problems ([Hysing, 2022](#); [Prentice et al., 2019](#); [Scott & Thomas, 2017](#)). Under this conception, institutional design is defined as a deliberate attempt to change the formal or informal rules that structure interactions within policy networks ([Klijn & Koppenjan, 2006](#)). Consequently, the intended purpose of collaboration, such as information gathering, conflict resolution, or policy implementation, will influence the institutional design of collaborative governance, e.g., the amount of authority

and resources invested, the scope and structure of participant involvement, and the processes governing actor interactions (Bryson et al., 2015; Hysing, 2022). While collaborative governance is increasingly used to address complex issues in different governance contexts, the varied collaborative processes and outcomes signify the existence of distinct purposes of adopting collaborative approaches in China. This diversity in institutions underscores the necessity of comparing the varied institutional designs to understand how collaborative governance operates in various governance contexts, the specific problems it seeks to address, and the rationale behind different design choices.

Institutional Design of Collaborative Governance in China

Collaborative practices are situated within specific political, legal, socioeconomic, and environmental contexts (Emerson et al., 2012). Many studies of collaborative governance are conducted within Western democratic contexts, while collaborative governance practices in China operate within an authoritarian political system. Many core assumptions in collaborative governance literature, such as deliberative democracy and power neutrality, do not apply under Chinese contexts. In China, political elites typically dominate collaborative governance since they have the authority to mediate conflicts, urge interdepartmental consensus-building, and allocate essential resources to prompt collaboration, especially when self-initiated collaboration is difficult due to a lack of leadership or interest conflicts among stakeholders (Wang & Ulibarri, 2025; Zhou & Dai, 2023a). Consequently, collaborative governance in China is imbued with distinct political ideologies and values, leading to different institutional design choices compared to those discussed in conventional collaborative governance theories (Ansell & Gash, 2008; Healey, 2006).

Recent studies show that collaborative planning in China is influenced by authoritarian deliberation (Lin, 2022; Zhou et al., 2025a). Authoritarian deliberation, a concept coined by He and Warren (2011), refers to the phenomenon where participatory and deliberative practices appear within an authoritarian regime but with predetermined boundaries of political discourse, pre-filtered topics, and limited influence on decision-making. Here, deliberation is understood as any communication behavior intended to persuade participants without resorting to coercion or quid pro quo (e.g., threats, economic incentives, or sanctions); instead, argumentation and reasoning are used to discuss collective issues, where evidence is presented, oppositions are considered and responded to, and solutions are proposed and justified (He, 2006; Jiang, 2010). More importantly, while consultation merely serves as an approach for governments to collect information, in deliberation, governments allow and encourage discussion space and enable it to influence decision-making (He & Warren, 2011). The rationale behind the government's decision to adopt collaborative governance approaches differs, depending on the types of problems being addressed (He & Wagenaar, 2018). This leads to different designs of deliberative practices, some of which offer wider space for public deliberation and achieve greater citizen empowerment, while others remain under tighter

government control (Fishkin et al., 2010). For example, deliberation is more likely to occur in the resolution of local conflicts during urbanization, as conflicts in urban residential communities are largely concerned with specific living environments and practical issues rather than substantive political issues (Tong & He, 2018). Therefore, by comparing the institutional design of collaborative governance in China, we can unravel the specific rationales behind the adoption of collaborative approaches in governing public affairs, discern the types of issues that collaborative approaches can address, and reveal the limitations of collaborative endeavors under an authoritarian context. Ultimately, this comparison offers deeper insights into why and how collaborative governance is adapted and implemented within the specific political landscape of China.

A Conceptual Framework to Compare Institutional Design of Collaborative Governance in China

Scholars across various research disciplines propose different principles for institutional design of collaborative governance, each emphasizing crucial elements from their respective theoretical foundations. This section begins by synthesizing these institutional design principles as they pertain to collaborative governance in different research fields. Building on this synthesis, a conceptual framework is developed, focusing on five key aspects relevant for differentiating the institutions of collaborative governance in China.

The collaborative planning literature offers significant insights into the institutional underpinnings of collaborative processes. Healey (2006) employs the metaphor of designing “soft infrastructure”—mechanisms for relation-building and mutual learning in deliberation, and “hard infrastructure”—political, administrative, and legal systems, to describe the development of supportive institutions. Similarly, Innes et al. (2011) identify several governance strategies conducive to successful collaborative planning, including the involvement of diverse and interdependent players, fostering collaborative dialogue, enabling joint knowledge development, promoting the creation of networks and social and political capital, and encouraging boundary spanning. However, these principles are often normative and challenging to translate into concrete institutional arrangements, especially regarding ensuring power equality and inclusion in collaborative processes.

In public administration, collaborative governance is widely adopted in the environmental governance field for managing common-pool resources (CPRs) (Gerlak et al., 2013). CPRs typically face problems of overuse and free riding; without effective institutional constraints and proper management, CPRs are at risk of degradation or depletion, thereby threatening their long-term sustainability (Ostrom, 1990). She proposes eight types of rules for guiding community-based management of CPRs, including clearly defined boundaries, proportional equivalence between benefits and costs, collective choice arrangements, monitoring systems, graduated sanctions, conflict-resolution mechanisms, recognized rights to organize, and nested enterprises. Within this framework, rules for communication

and deliberation are implicitly encapsulated in mechanisms for structuring multi-stakeholder dialogues, which serve as crucial venues for conflict reduction, exploration of alternatives, negotiations and decision-making, feedback in policy processes, and social learning (Ananda & Proctor, 2013; Huntjens et al., 2012).

Political sciences and participatory governance studies focus on how participatory processes are designed and the subsequent impact on policy outcomes, legitimacy, and democracy. Fung (2006) develops a comprehensive framework for understanding the diverse institutional possibilities for public participation, focusing on three key dimensions: Participant selection, communication and decision-making processes, and authority and power. In a similar vein, Uittenbroek et al. (2019) examine the design of public participation to unravel the potential relationship between specific design choices and the objectives of participatory processes. They focus on three core elements: Who participates, when, and how, addressing the issues of interest representation, the number of opportunities for participation, and the degree of authority granted to participants, respectively.

However, design principles rooted in democratic governance traditions are not fully applicable to collaborative governance in China, where the state significantly shapes deliberative practices with its own values and strategic purposes, which can stand in contrast to normative democratic ideals (He & Warren, 2017). To differentiate deliberation from mere consultation, Tong and He (2018) advocate scrutinizing the “democratic attributes” of deliberative practices in China—whether they are inclusive, authentic, consequential, while upholding deliberative procedures. Their five-dimensional framework operationalizes this by examining: (1) participant selection to assess inclusivity based on who participates and how they are chosen; (2) agenda-setting to gauge authenticity by determining who initiates deliberation and controls discussion topics; (3) deliberative procedures focusing on communication rules, access to information, and freedom of expression; (4) deliberative themes considering the content and nature of discussion as indicators of authenticity and potential influence; and (5) use of results to determine if deliberation is consequential, leading to tangible changes in policy, resource allocation, or actions, thereby validating the persuasive influence of deliberation.

Drawing on the studies outlined above, this chapter develops a theory-derived conceptual framework. It focuses on five aspects of institutional design of collaborative governance, including participants, agenda-setting, stages of intervention, modes of communication, and the nature of outputs. These five aspects are selected because they represent recurring themes in the aforementioned research fields, encapsulating core considerations of inclusiveness (participants), deliberative procedures (agenda-setting, stages of intervention, modes of communication), and consequentiality (nature of outputs), all of which are critical factors shaping the processes and outcomes of collaborative governance. In addition, considering the influence of authoritarian deliberation, the design of the five aspects does not necessarily follow normative democratic ideals; instead, they can be tailored to address specific governance challenges and reflect state-defined

objectives. Lastly, this framework is not intended as an exhaustive guide for designing institutions to support collaborative governance. Rather, it provides a structured lens to distinguish different design choices of collaborative governance in China and illuminate the links between institutional design and its intended objectives.

- *Participants*: This aspect concerns rules determining the eligibility for participation, including participation selection criteria and methods, roles and responsibilities of participants, and relationships among participants. While collaborative planning theorists often advocate for the inclusion of all stakeholders, [Fung \(2003\)](#) suggests that the practical design of a participation process must consider the composition of participants based on varying objectives, which can be educative, advisory, collaborative problem-solving, or direct decision-making. In an authoritarian context, the authority can determine the participants in deliberation and exclude certain actor groups ([Tong & He, 2018](#)).
- *Agenda-setting*: This aspect focuses on rules regarding setting the agenda for deliberation, including who possesses the power to initiate deliberation and select topics for it, geographical boundaries within which deliberation occurs, and mechanisms for agenda collection. The subject and scope of deliberation significantly shape the deliberative processes and the impact of participants, as they are more likely to invest their energy and resources into subjects that they have high stakes and/or knowledge about ([Fung, 2003, 2006](#)). In democratic deliberation, agendas and wills are formed collectively ([Warren, 2017](#)), while in authoritarian settings, the government often retains agenda-setting power and limits citizens' capacity to put issues onto the agenda ([He & Warren, 2011](#)). The agenda can be predetermined or hidden, where backstage deals are made between political or economic elites ([He & Wagenaar, 2018](#)). Consequently, the capacity of collaborative processes to address concerns of stakeholders who are excluded from agenda-setting is significantly limited. Lastly, [He and Warren \(2017\)](#) point out that public deliberation in China mostly occurs at the local level, where local governments face increasing social conflicts and challenges of governing complex issues.
- *Stages of intervention*: This aspect considers rules determining at which point(s) in a policy cycle or project lifecycle deliberation is initiated. This can range from the initial stages of policy initiation and problem definition, through policy formation and solution negotiation, to later stages of implementation, management, and evaluation. Collaborative processes can be divided into assessment/planning, organizational, educational, negotiation/resolution, and/or implementation stages, with each stage involving different sets of tasks and challenges ([Innes & Booher, 2018](#)). Consequently, the participants' contribution in collaborative processes can vary, from providing ideas about a proposed policy, implementing a measure, to contributing to its management or maintenance ([Uittenbroek et al., 2019](#)). In addition, this aspect determines the number of opportunities offered to influence the decision-making process, with earlier involvement implying higher levels of influence ([Uittenbroek et al., 2019](#)).

- *Modes of communication*: This aspect examines rules structuring collaborative processes through which participants communicate, interact, and exchange information, and mechanisms for reaching consensus. It encompasses a spectrum of communication forms, from more passive modes of information reception to more active and deliberative modes of engagement that emphasize interactive dialogue, mutual learning, and consensus-building (Fung, 2006; Innes et al., 2011). The chosen mode of communication is a critical aspect distinguishing deliberative processes from merely consultative ones in China (Tong & He, 2018). If communicative processes are expected to function as a means of forming policies, resolving conflicts, or gaining support in authoritarian settings, they should differ from purely instrumental or strategic communication; rather, participants should be provided a space for argument, reasoning, and persuasion, approximating deliberative ideals (He & Warren, 2011).
- *Nature of outputs*: This aspect focuses on rules determining the nature of outputs generated from collaborative processes—whether they can inform, shape, or direct decision-making within governance networks. Collaborative planning theorists hold that collaborative processes should wield direct decision-making power (Healey, 2006; Innes & Booher, 2018), while in China, collaborative processes are less evident in exerting direct influence on decision-making (Cao et al., 2021; Lin, 2022). The level of influence of the collaborative process can vary, such as resulting in non-binding policy suggestions or being directly incorporated into final decisions or actions, as the authority firmly retains decision-making power. However, He and Warren (2011) emphasize that to qualify as deliberation, the decisions should respond to, or at least, reflect the persuasive influence generated through deliberative processes.

Co-creation in Urban Regeneration

Co-creation represents an institutionalized collaborative planning approach in China's urban regeneration (Zhao et al., 2023). This approach was first trialed in Xiamen in 2013, following the Chinese Communist Party's 18th National Congress in 2012 when the central government emphasized public participation in urban governance and the establishment of enabling institutions. The co-creation approach has been mostly applied to urban "micro-regeneration" projects, which emphasize small-scale renovation without large-scale demolition and resident relocation (Chen et al., 2023; Gong et al., 2023). Additionally, this approach is officially narrated as aiming at serving the common good and improving the public interest; thus, co-creation mainly focuses on planning, designing, and managing public space in the regenerated area (Zhao et al., 2023). Furthermore, most co-creation activities are designed and organized by scholars and planning professionals, often with the support of, if not directly led by, relevant local public departments (Gong et al., 2023). This differs from grassroots insurgent planning, as co-creation does not aim to challenge established power relations, nor does it alter the development visions held by elites and political leaders (Cao et al., 2021; Zhu, 2023). Local governments play a vital role in co-creation activities, as they

can determine the extent and nature of public participation and possess the administrative and financial resources necessary to implement these initiatives and mediate community conflicts (Xu et al., 2024; Zhao et al., 2023).

Participants in co-creation initiatives are generally diverse, including relevant government officials, residents, private developers (if applicable), planners, academics, architects, volunteers (such as those from heritage preservation groups), and journalists (Hui et al., 2021; Li et al., 2020a). While planning professionals, such as community planners or university professors, often initiate and organize co-creation processes, they are always affiliated with local governments who determine the overall purposes and subjects of co-creation. However, during the co-creation processes, participants are generally welcome to express their concerns to community planners or officials at the street office. Yet not all collected citizen input will be included in the agendas for later communication and negotiation processes, if they are out of the scope of co-creation that has been pre-determined by the government. For example, some residents expressed their wishes to receive better compensation and relocate out of the area within regeneration projects. These topics were normally removed from discussion during co-creation processes (Zhou et al., 2025a). Furthermore, the stage of initiating co-creation processes, communication modes, and results can vary significantly across different cases of co-creation initiatives. Below are two urban regeneration projects in Guangzhou for further clarification.

The Enning Road project in Guangzhou was a developer-led urban regeneration project, after which the area was transformed into a popular tourist destination (Zhou et al., 2025a). The project was intended to renovate government-owned houses and build new buildings on empty plots owned by the government, while maintaining the historic Guangzhou style. The real estate company Vanke was contracted by the district government to conduct housing renovation and construction, after which the company received 15 to 20 years of operation rights of the area to recoup its investment. In September 2018, a co-creation committee was established during the project's implementation stage, involving a wide range of stakeholders, including officials from district and street-level governments, representatives from Vanke, residents, business owners, planners, university professors, and journalists. The main communication method was formal co-creation meetings, serving as a venue for information disclosure and discussion among committee members and other participants, as these meetings were usually open to the public. Three days before a co-creation meeting, officials from the street office would announce the meeting date and openly ask for submissions of topics for discussion during the meeting, after which the officials would select and announce the meeting agenda before the meeting. Co-creation meetings were normally chaired by an official from the district urban renewal center. Officials from different public departments would announce updates regarding the planning of the Enning Road area and new policies, whereas the developer would demonstrate the design and planning of the area, construction progress, and the planned business contents of renovated buildings, inviting participants to share their opinions about these planning schemes. Concurrently, residents complained about nuisances during project implementation

and management, such as noise from commercial activities, house damage caused by the developer's construction, and infrastructure malfunctions. Residents could become emotional when talking about their housing damage caused by the developer or low monetary compensation offered by the government. Although these topics were not put on the official meeting agenda, emotional outbursts of residents were usually tolerated during meetings. Through communication and discussion during co-creation meetings, government officials became aware of the conflicting issues and pressured the responsible organizations to promptly address practical problems, such as repairing streetlamps, controlling the noise level caused by construction, or removing the garbage left by tourists.

In the Pantang Village project led by the district government in Guangzhou, co-creation efforts started at the project's planning stage in April 2017, which made it possible for planners to incorporate resident input into the planning scheme. The project focused on the Pantang Village—an ancient village with many historical buildings hundreds of years old. The urban micro-regeneration project aimed to renovate the government-owned houses in the village, while maintaining the original layout and style of the old village, after which the houses were managed by the district government and rented out for business operations. The main participants of co-creation processes were community planners and village residents, while two years later the Pantang Village co-creation committee was established, consisting of officials from district and street-level governments, residents, community planners, university professors, and journalists. Participants were encouraged to express their visions of the village's future and their demands in the regeneration project, while the topics were mainly centered on the use of public areas, such as a square in front of the temple and the placement of an ancient statue. Two community planners organized various co-creation activities, such as informal tea forums, photo exhibitions, and workshops with 3D building models, to engage residents and other concerned citizens in planning processes. Ultimately, some residents' planning proposals were realized in the project, such as dismantling the wall between the village and Liwan Lake Park, building public toilets, and improving public activity space. Nevertheless, while the co-creation approach generally yields tangible outcomes, such as addressing immediate practical issues or implementing some residents' input in planning, state actors typically determine the regeneration visions, the agenda of co-creation, and the extent to which the co-creation outputs are implemented. Despite a relatively high level of inclusiveness and a deliberative quality of co-creation processes, the co-creation approach possesses little transformative potential regarding regeneration outcomes or the existing power structure.

Collaborative Water Governance under the River Chief System

The RCS represents a notable example of collaborative water governance in China, implemented nationwide since June 2018. In 2016, the central government issued the national RCS guideline, which regulates that under the leadership of the Party, governments at each level should promote collaboration among all relevant actors, develop problem-oriented solutions tailored to local conditions, and establish strict

supervision and accountability systems. Leading cadres in local Communist Party committees and governments are designated as river chiefs who lead and coordinate collaboration among government agencies at different levels, departments, and jurisdictions, as well as between state and non-state actors. The RCS operates within provincial boundaries, in which river chiefs in a province are classified according to their positions in the party-state hierarchy, spanning from provincial, municipal, district, county, to township/village level. The RCS is intended to address the often-obscure division of responsibilities and tasks in water management and the low motivation of local officials in enforcing environmental regulations. It assigned river chiefs, who are also the superior political leaders in their jurisdictions, to lead the overall planning and implementation of water-related policies and measures. In addition, the performance of river chiefs is included in their career evaluation as a criterion for political promotion. To assist the work of river chiefs, River Chief System Offices (RCSOs) are set up in each province, municipality/city, district, and county, consisting of workers from relevant public departments, such as water resources and environmental protection departments. RCSOs are the major executing organizations of the RCS, which are responsible for convening meetings, collecting information from different departments, and undertaking river inspections, etc. (Zhou et al., 2025b).

The major participants in water management under the RCS are government agencies, including vertical collaboration between public departments from the same domain at municipal and district levels, horizontal collaboration between public departments at the same administrative level, and territorial collaboration among several districts or counties (Wang & Chen, 2020). These collaborations are mainly commanded by higher-level authorities and regulated by vertical accountability mechanisms inherent in the Chinese hierarchical political structure (Zhou et al., 2025b). The major agenda in collaborations under the RCS is broadly focused on improving water quality to meet the water quality targets set by higher-level authorities. Collaborations among government actors span planning and evaluation stages, with monthly meetings serving as the main communication platform. These monthly meetings, convened by the RCSOs, typically involve river chiefs and relevant public departments at the same administrative level, where officials can exchange information, share difficulties, and explore collaborative solutions. When an agreement is difficult to make during meetings, river chiefs will make the final decisions, allocating tasks and mandating collaboration among public departments.

For non-governmental actors, several studies show that most public engagement in the RCS has started at the policy implementation and management stages, aiming to encourage policy compliance and voluntary actions, such as reporting illegal wastewater discharge, river trash cleaning, and public environmental education (Wang et al., 2022; Wu et al., 2020). The communication in these government-citizen initiatives is mainly facilitated through formal official platforms, such as the hotline 12345, and government-launched digital platforms (e.g., APPs or WeChat programs). Citizens primarily act as information providers who file water-related complaints, with the government responding through these platforms, making communication largely one-way between single citizens and the government, rather

than a deliberative dialogue among a wide range of actors. In addition, some cities, such as Guangzhou and Xiamen, established a specific position called “Civilian River Chief” to engage enthusiastic citizens in water management (Wang et al., 2022; Zhou et al., 2025b). This is a volunteer position, in which citizens conduct tasks under the guidance of the government, usually the RCSO in their living cities. They receive tasks from the RCSO, such as river patrols and cleaning garbage in rivers near their homes. In addition, civilian river chiefs act as intermediates between the government and citizens, who collect citizens’ opinions and report them to the government, and transfer the government’s announcements or responses to complaints to citizens.

Since its nationwide implementation, the RCS has reportedly been effective in improving water quality across the country to some extent (Li et al., 2020b). As Chien and Hong (2018) point out, the institutional design of the RCS greatly utilizes the existing party-state hierarchical structure. On the one hand, the geographical mismatch of cross-boundary water governance is resolved through the hierarchical political system under an authoritarian regime, in which upper cadres usually have absolute authority over those at lower administrative levels. On the other hand, by linking achievement in water management to official promotions, local leaders are politically motivated to mobilize their resources and coordinate their subordinates to achieve the designated goals. In addition, citizen reports and complaints through official communication channels can lead to responsive actions by relevant public departments on specific issues. However, it remains unclear to what extent collaborative processes, especially with non-governmental actors, contribute to improved water quality when compared to factors such as substantial capital investments in water infrastructure upgrades and river pollution purification (Zhou et al., 2025b) and the continued prioritization of economic development (Li et al., 2020b). Furthermore, the influence of government-citizen collaboration appears limited to operational aspects and policy compliance, while meaningful public participation requires a more interactive communication platform where different stakeholders can meet and exchange opinions based on high-quality information, and ideally, a more formal sharing of decision-making power (Gao & Teets, 2021).

Discussion

This discussion section synthesizes the empirical findings through the five-dimensional conceptual framework, underscoring the tailored, problem-driven nature of the institutional design of collaborative governance in China. Table 5.1 shows an overview of the five aspects of institutional design and the intended objectives of collaborative governance in urban regeneration and water management.

First, participants in co-creation for urban regeneration are notably diverse, encompassing government officials, residents, developers, planners, academics, and civil society groups. This inclusivity is a direct response to the highly localized and often contentious nature of conflicts involved in urban regeneration. Issues such as land acquisition difficulties, fragmented property rights, resident dissatisfaction

Table 5.1 A comparison of the institutional design of collaborative governance in China

<i>Aspect of institutional design</i>	<i>Co-creation in urban regeneration</i>	<i>River Chief System in water management</i>
Participants		
Design features	Diverse stakeholders representing their own interests, including related public departments, residents, developers (if applicable), planners, academics, architects, journalists, etc.	Primarily, government agencies under a hierarchical political structure; blurred boundaries between state and non-state actors, as they are all involved in contributing to environmental protection; citizens' roles are supportive and marginal.
Intended objectives	Mitigate highly localized conflicts, ensure project progression by involving affected parties, manage residents' grievances, gain cooperation for renovations, enhance perceived legitimacy of regeneration projects.	Clearly define government agencies' responsibility and enforce intergovernmental collaboration for water management, leverage party-state hierarchy and political incentives for achieving water quality targets, utilize citizen input for supplementary information gathering and policy compliance.
Agenda-setting		
Design features	Micro-level, site-specific, practical issues within regeneration projects (e.g., public space design, nuisance resolution). Local governments typically determine overall goals and subjects of co-creation, steering toward immediate, localized concerns; residents' private economic interests are often excluded.	Macro-level: Within provincial boundaries, higher-level authorities set the agenda, emphasizing designated water quality goals and mandating intergovernmental collaboration to achieve these goals, while citizen participation is confined at the very local level where citizens can report water-related problems through official channels.
Intended objectives	Address immediate, localized practical concerns efficiently, manage public spaces to serve the public interests defined by local authorities, and keep deliberation focused on non-controversial aspects of project implementation.	Achieve overarching, centrally defined water quality targets, overcome transboundary water governance challenges, and respond to citizen demand for improved environmental quality through meeting these state-set water quality targets.
Stages of intervention		
Design features	Flexible timing: Collaboration and deliberation can occur at early planning stages or later implementation/management stages.	Intergovernmental collaboration spans various policy cycle stages; public engagement is predominantly concentrated in policy implementation and management stages.

(Continued)

Table 5.1 (Continued)

<i>Aspect of institutional design</i>	<i>Co-creation in urban regeneration</i>	<i>River Chief System in water management</i>
Intended objectives	Adapt to evolving challenges at different project stages; early engagement to gather local input for planning; later engagement to address practical implementation issues, manage conflicts, and reduce resistance during project execution.	Ensure continuous intergovernmental collaboration toward water quality targets. Public engagement primarily supports water-related policies or projects, fosters compliance with regulations, and improves public environmental awareness.
<i>Modes of communication</i>		
Design features	Varied communication channels, which can be formal or informal, potentially with deliberative qualities; consensus is not always necessary.	<i>Intergovernmental collaboration:</i> Formal monthly meetings for information exchange and problem-solving, while political leaders make final decisions. <i>Government-citizen collaboration:</i> Largely formal and one-way via official hotlines or digital platforms for problem-reporting and feedback.
Intended objectives	Facilitate negotiation and conflict management among diverse stakeholders, gather diverse input effectively, manage resident grievances through controlled channels, enhance perceived transparency, and accountability of the regeneration process.	<i>Intergovernmental collaboration:</i> Ensure coordinated action, information sharing, and resolution of intergovernmental conflicts under hierarchical leadership. <i>Government-citizen collaboration:</i> Efficiently gather information on water pollution, demonstrate government responsiveness to specific complaints, and manage public discontent in time.
<i>Nature of outputs</i>		
Design features	Influence on tangible outcomes at the project level (e.g., addressing immediate conflicts, some incorporation of resident input into design). Limited transformative potential on established power relations or pre-decided development visions; state retains ultimate authority and resources.	Intergovernmental collaboration can result in water-related projects or pollution remedy measures. Citizen reports can trigger specific responsive actions from relevant public departments.
Intended objectives	Resolve or mitigate practical, localized conflicts to facilitate smooth project implementation, manage conflicts effectively at the project level, generate information on local needs, all without ceding fundamental state control or altering overarching urban regeneration plans.	Reinforce the effectiveness of the hierarchical party-state structure in environmental governance; improve water quality to meet centrally defined environmental targets; demonstrate government responsiveness and temper public discontent, thereby preventing mass incidents.

with compensation and relocation, and public concern over heritage preservation necessitate the involvement of diverse stakeholders whose cooperation is crucial for conflict mitigation and project progression. In contrast, the RCS primarily orchestrates collaboration among government agencies across various levels, departments, and jurisdictions. The role of citizens, while acknowledged, is often supportive and marginal. This reflects a persistent techno-managerial approach to water management, which is largely regarded as the government's sole responsibility and demands significant technical and financial resources.

Second, regarding agenda-setting, agendas in co-creation are typically micro-level, focusing on practical, site-specific issues within regeneration projects, such as the design and use of public space or nuisances arising from the regeneration project. While planning professionals often initiate co-creation processes, local governments determine the ultimate goals and subjects of co-creation, steering agendas toward immediate, localized concerns; issues related to private economic interests usually fall outside the predetermined scope of co-creation. Conversely, the RCS tackles the macro-level challenge of water pollution across jurisdictional boundaries within provincial boundaries. Its agendas are typically set by higher-level authorities, emphasizing overarching water quality targets and mandating collaboration among all relevant actors when necessary to achieve these state-defined objectives.

Third, the stage at which collaborative processes are initiated reveals differing purposes for adopting a collaborative governance approach. The timing of co-creation demonstrates flexibility, occurring from early planning stages that allow for resident input into planning schemes (as in Pantang Village project) to later implementation and management phases that serve as conflict resolution platforms (as in Enning Road project). This adaptability is crucial for addressing the evolving challenges in different stages of urban regeneration. In the RCS, intergovernmental collaboration spans various stages of the policy cycle to ensure the comprehensive alignment of the national RCS guideline and the consistent achievement of state-determined water quality targets. However, public engagement is predominantly concentrated in the later stages of policy implementation and management. Here, public input is sought mainly to support predetermined goals, fostering policy compliance and improving public environmental awareness.

Fourth, in terms of modes of communication, co-creation employs more varied and interactive communication channels that potentially offer deliberative quality, including formal meetings, exhibitions and workshops, and informal community forums, to facilitate opinion solicitation, solution negotiation, and conflict resolution among diverse stakeholders. The RCS, however, predominantly relies on formal communication channels within the state apparatus, where ultimate decision-making authority rests with river chiefs, who are the superior political leaders in their respective jurisdictions. Communication with citizens is largely formal and one-way, utilizing official hotlines and digital platforms for reporting and feedback, rather than fostering broader deliberative dialogues.

Fifth, the nature of outputs and the overall impact of these collaborative endeavors reflect the distinct rationales for adopting collaborative governance approaches. Co-creation often yields tangible outcomes at the project level,

addressing immediate conflicts and sometimes incorporating local input into regeneration projects. However, its transformative potential regarding existing unequal power relations or predetermined urban regeneration visions is typically constrained, as the power of agenda-setting and implementing co-creation outputs firmly remains with the government. The RCS has reportedly achieved improvements in water quality, primarily by leveraging the party-state's hierarchical structure, vertical accountability mechanisms, and political incentives for officials. Citizen reports can trigger specific actions for pollution remedy, thereby improving the responsiveness and accountability of local governments. Yet, the influence of collaboration between governments and citizens, particularly when weighed against massive technological and financial investments, remains a subject for further research scrutiny.

In sum, these divergences in the institutional design of different instances of collaborative governance in China are not accidental; they are deeply intertwined with the nature of the problems being addressed, the scale of governance required, the historically perceived roles of state versus non-state actors, the specific objectives of collaboration, and, crucially, the overarching political and institutional context of authoritarian deliberation. Indeed, the institutional design of both co-creation and the RCS aligns with several functions of authoritarian deliberation proposed by [He and Warren \(2011, 2017\)](#). Co-creation emerges as a collaborative planning approach at project-level, serving primarily for instrumental conflict mitigation and ensuring smooth project implementation. The co-creation meeting, as a venue for deliberation, is an important platform for managing residents' grievances under controlled space and generating information about local needs and potential obstacles to the project. In addition, the involvement of diverse stakeholders in structured and open communication and discussion during co-creation processes enhances perceived transparency and accountability of often-contentious urban regeneration projects. The RCS, operating upon a hierarchical structure, is geared toward achieving centrally defined water quality targets. By offering several official communication channels for citizens to report problems, albeit in a more controlled fashion compared to those in co-creation, the RCS allows local governments to gather firsthand information on pollution conditions. Moreover, by addressing reported issues, the government tempers public discontent in a timely manner and demonstrates responsiveness, preventing issues from escalating into mass incidents.

Conclusion

In recent decades, rapid economic development and urbanization in China have given rise to severe environmental degradation and complex social conflicts, compelling the state to explore governance models beyond the traditional top-down approach. The adoption of collaborative governance approaches by governments, supported by national laws or local regulations, reflects the state's pragmatic response to increasing governance complexities characterized by diverse actors and conflicting interests and the limitations of existing policy tools and governance capacity. This chapter investigates the institutional design of collaborative governance

in China by comparing two collaborative approaches: Co-creation in urban regeneration and the RCS in water management. In conclusion, the problem-driven nature of collaborative governance in China implies that the institutional design of collaborative governance approaches is carefully calibrated at each design aspect. Comparing the institutional design of co-creation and the RCS using the conceptual framework offers a nuanced understanding of why collaborative governance approaches are adopted, how they are operated, and what purposes they ultimately serve in different governance contexts in China. As He and Warren (2011) put forward, the adoption of deliberative mechanisms in authoritarian regimes serves both strategic and functional purposes. Collaborative governance in China is found to be an effective tool to improve the government's governance capacity amid rising complexity, plural interests, changing public expectations, and pressing socio-environmental problems. The tailored institutional design across the five aspects reflects a pragmatic approach by the state to manage social complexities, enhance governance performance, maintain social stability, and ultimately reinforce its legitimacy, all while operating within established power structures and institutional frameworks.

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6 Gaining Discursive Power through Framing

Citizens' Strategic Use of Social Media in Collaborative Planning

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Social Media and the Networked Public Sphere

In recent years, social media platforms have transformed the forms of communication and public engagement. One key feature is interaction; platforms like Twitter, Instagram, and Weibo allow individuals to participate in online discourse through intuitive interfaces, regardless of technical skills (Boyd & Ellison, 2007). Unlike traditional media such as newspapers and television, which require significant resources, depend on institutional networks, and primarily facilitate one-to-many communication, social media enable mass self-communication (Castells, 2013). Their openness and ease of use amplify inclusivity, offering a space where diverse voices can converge and contest mainstream narratives (Papacharissi, 2015). However, openness also risks information oversaturation, where credible content competes with misinformation, potentially lowering the quality of discourse (Sunstein, 2018). Another notable feature is the broad reach, portability, and visibility of social media, which connect users across geographic and cultural boundaries to form a global public forum (Neumayer et al., 2021; Safari et al., 2022; Shirky, 2011). Still, some groups, such as the disabled, elderly, and children, may be marginalized in this digital space, and echo chambers can reinforce existing biases (Pariser, 2011). Thus, social media present both opportunities and complex risks. Increasing mobility, supported by smartphones and mobile internet, enables users to engage in discourse anytime and anywhere (Hampton et al., 2014; Schrock, 2015). This connectivity reshapes temporal and spatial dynamics, allowing real-time responses and sustained engagement. Yet, critics caution it may lead to superficial forms of engagement driven by the fast-paced nature of online interactions (Dean, 2010). Despite such critiques, the accessibility and interactivity of social media have democratized information sharing and public debate (Jenkins et al., 2013). Still, social media also empower digital repression, allowing authorities to efficiently prevent or control non-institutional challenges like protests or activism (Earl et al., 2022). The rise of global activism reflects a shifting power arena where both governmental and non-governmental actors actively engage (Castells, 2015; Poell & Van Dijck, 2015).

Referred to by Benkler (2006), such an arena is described as the networked public sphere, where citizens are empowered to shape public discourse in ways that traditional media never provided. Unlike the classic public sphere noted by

Habermas (1991), which was dominated by centralized mass media, the networked public sphere is characterized by its decentralized, networked, interactive, and participatory nature. The networked public sphere does not operate as a single unified arena but often fragments into a constellation of micro-publics. Digital platforms like social media enable citizens to share information and actively engage in discussions, which facilitates dynamic conversations and breaks spatial limitations or social constraints of communication (Castells, 2013). In this networked environment, the flow of information is horizontal rather than top-down. Through interactions such as retweets, comments, shares, and hashtags, individuals can influence the direction of public discourse (Shirky, 2011). These features involve social media into a crucial space where public ideas can be disseminated on a massive scale. In this context, social media's role extends beyond mere information dissemination. It becomes an arena for public discussion, debate, and collective actions (Loader & Mercea, 2011). The networked public sphere thus introduces a significant shift in power dynamics. Citizens can frame issues and construct narratives that gain traction and influence public opinion, allowing them to challenge official decisions and traditional power relations.

The relatively open, accessible platforms of the networked public sphere attract a wide range of actors to participate in public discourse, thereby democratizing the process of producing and contesting discursive legitimacy. Despite this optimistic potential, critical scholarship has identified important limitations. The prevalence of echo chambers and algorithmic bias can reinforce existing views and foster polarization rather than meaningful dialogue (Sunstein, 2018). Reliance on platforms owned by private corporations also raises concerns about surveillance, data privacy, and the manipulation of public opinion through targeted content (Zuboff, 2019). In authoritarian contexts, such as China, governments can exert significant control over digital platforms by regulating and censoring online content (Zhuravskaya et al., 2020). In addition, the fragmented and fast-paced nature of social media discourse can dilute complex issues into overly simplified or emotionally charged narratives. This increases the risk of misinformation and undermines efforts to build fact-based, legitimate public dialogue (Pennycook & Rand, 2019). While the usefulness of the networked public sphere has been questioned in different institutional and cultural contexts, empirical evidence suggests that it continues to serve as a medium for transformative civic expression (Milan, 2015; Tufekci, 2017). In the realm of urban governance, citizen engagement in digital discussions, especially those surrounding contentious planning issues, has become more frequent, with users employing framing strategies to contest official narratives. Nevertheless, studies also note the challenges of fragmentation, fleeting attention, and state control (Batorski & Grzywińska, 2018; King et al., 2013).

However, despite this growing interest, existing research has not sufficiently explored how discursive legitimacy is constructed under platform constraints and political pressure in contexts where direct criticism may be censored or penalized. In particular, there is a lack of a nuanced understanding of how citizens strategically employ framing mechanisms to maintain visibility, legitimacy, and influence

within contested online spaces. This gap calls for a closer examination of discursive power and framing practices on social media. Therefore, the next section introduces a conceptual framework of discursive power, discursive legitimacy, and framing to better understand how civic actors navigate and reshape public discourse under authoritarian constraints.

Discursive Power, Legitimacy, and Framing in Social Media

As information circulates through the networked public sphere, new forms of power emerge, particularly discursive power. Foucault (2013) emphasized the power embedded in discourse, but within the networked public sphere, this power becomes accessible to a more extensive array of actors, including ordinary citizens and grassroots movements. He argued that discourse is not static. It constantly evolves through layers of interaction (such as posts, forwarding, and comments), reinterpretation, and resistance. Within social media, this dynamic plays out as users engage in a continuous cycle of content creation, critique, and narrative reshaping, which empowers the potential of social movement and digital activism (Leong et al., 2019). These processes lead to the emergence of new forms of knowledge and power, as discourse is iteratively built upon and contested. To capture this process, it is important to consider not only the content of discourse but also the networks through which it circulates. While discursive theory highlights how actors construct meaning and contest legitimacy through language, it often neglects the structural dynamics that govern visibility and influence. Network theory, by contrast, focuses on how discourse flows through social connections and how certain nodes (e.g., users, accounts, or hashtags) gain prominence in shaping online conversations. Combining these perspectives allows us to understand discursive power as both a relational and symbolic phenomenon: Narratives acquire legitimacy not only by their rhetorical force, but also by their position in the network, their capacity to be relayed, and their embeddedness in clusters of influence. In this view, discursive legitimacy is co-constituted by meaning-making practices and the networked structures that enable or constrain their amplification. The open, participatory nature of the networked public sphere allows diverse actors to contribute to this ongoing dialogue, resulting in what scholars refer to as discursive power, reflecting the capacity to shape societal perceptions and norms through language (van Dijk, 2017). In this context, discursive power is not confined to institutional actors. It becomes distributed among citizens and social movements, who can challenge dominant narratives by constructing alternative frames that resonate within public discourse (Castells, 2013).

This is because the exercise of discursive power depends heavily on the perceived legitimacy of these narratives, which Purdy (2012) identifies as a new source of power emerging from recognized narratives. As discourse circulates and gains visibility within the networked public sphere, certain frames begin to solidify and garner recognition, thus transitioning into discursive legitimacy in social media (Lacerda & Rita de Cássia, 2023). This process showcases the importance of framing efforts in legitimizing alternative narratives, setting the stage for a deeper

exploration of how social media users actively construct and negotiate discursive power to influence policy and societal change. In addition, the cultivation of discursive legitimacy on social media does not occur automatically. As Benford and Snow (2000) point out, it requires intentional and strategic framing efforts. Among these efforts are techniques such as frame bridging, which involves linking different yet compatible frames to strengthen collective understanding, and frame diffusion, which refers to the spread of particular frames across diverse social contexts. These processes enable citizens to align their causes with broader societal concerns and to mobilize wider public support. Recent scholarship has emphasized that the digital nature of social media provides not only the arena but also the tools needed for this framing work. As noted by Pond and Lewis (2019), social media platforms can enhance discursive power by facilitating the visibility, repetition, and amplification of key narratives. The relatively open and accessible architecture of the networked public sphere allows a wide range of actors to engage in public discourse, which in turn democratizes the process of constructing and contesting legitimacy (Glozer et al., 2019). Empirical research offers several compelling examples of how framing contributes to the building of discursive legitimacy in online environments. In the context of environmental activism, Hansen (2018) demonstrates how climate campaigns have employed moral framing to connect climate change with ethical imperatives, such as intergenerational justice and the responsibility to protect the planet. This kind of framing not only resonates emotionally with audiences but also embeds environmental concerns within broader moral and societal values, thereby increasing their legitimacy in public debate. Similarly, studies of the #Me-Too movement have shown how personal narratives, when framed through themes of systemic injustice and gender equality, can reach and mobilize global audiences. Jackson et al. (2020) argue that such strategic use of framing helps individual experiences gain recognition as part of a collective struggle, enhancing their influence over public opinion and even policymaking processes.

Methodology

Case Selection: Big Banyan Tree Removal in Controversy

The case study of this research is related to a significant controversy over urban greening in Guangzhou, focusing on the public debate surrounding the removal of banyan trees. The issue first emerged in 2017, when the Tianhe District launched a project to remove certain street-side trees. At that time, the scale of removal was limited, and public reaction remained relatively muted. However, in 2020, the Guangzhou Municipal Bureau of Housing and Urban-Rural Development announced a broader plan to remove or relocate more than 4,300 trees, including over 3,000 banyan trees. This decision marked a turning point, triggering increasing public concern. In 2021, the government introduced the “Special Action for Greening and Afforestation in Guangzhou”, which extended tree removal efforts to key urban green spaces such as People’s Park and the riverbanks of the Pearl River. As the scope of intervention widened, public dissatisfaction also grew. While

traditional media outlets offered minimal coverage, social media rapidly became the primary space for discussion and critique. In May 2021, an article published by a civic activist on WeChat, titled “How Can I Keep You, Banyan Trees on Both Sides of the Pearl River?”, attracted widespread attention. The discussion soon migrated to Weibo, where the hashtag “#Embrace the Banyan Trees in Guangzhou#” gained traction. Citizens actively contributed to the conversation through both text and images, collectively framing the issue in emotional and political terms. The hashtag ultimately received more than five million views, reflecting a high level of engagement. Under mounting online pressure, the Forestry and Landscape Bureau released a public statement explaining that the tree removal was necessary due to concerns about safety, pest infestations, and ecological diversity. Nonetheless, many social media users questioned the legitimacy of these justifications, pointing to a lack of public consultation and transparency. The dissonance between the official explanation and public sentiment highlighted the contested nature of urban environmental governance and the struggle over discursive authority in digital spaces. In June 2021, the city’s landscaping department organized a symposium and pledged to suspend tree removal along the Pearl River. However, new incidents of tree felling continued to surface, prompting renewed criticism. Citizens framed these developments as a breach of public trust, using social media platforms to voice discontent and demand accountability. In August, another symposium was held, during which government representatives acknowledged previous mistakes and admitted that earlier decision-making lacked sufficient public input. By the end of 2021, provincial authorities criticized the tree removal project as inappropriate and held local officials accountable. This ultimately led to the revision of tree protection policies and a reconsideration of urban greening strategies. The Big Banyan Tree case illustrates how social media platforms can facilitate bottom-up discourse in response to contested planning decisions. It also demonstrates the potential of digital participation to influence public policy and reshape official narratives. Against this backdrop, the following section turns to the retweet network analysis to investigate how information and opinions circulated during the course of this public controversy.

Data Collection and Tools

This study collected data from Weibo, one of China’s leading social media platforms. On this platform, users publish original posts (similar to tweets) that can receive likes, comments, and forwards. When forwarding content, users may append their own comments, thereby generating new non-original posts. First, I collected all original posts under the hashtag “#Embrace the Big Banyan Tree#”. Subsequently, I gathered the forwards of each post along with their accompanying comments. After data clean, I acquired 256 comments in 385 valid posts. To protect personal privacy, all data were anonymized and randomly numbered. Based on this dataset, I further prepared two datasets: One focusing on the interaction behavior of “forwarding”, resulting in a network dataset, and the other focusing on the behavior of “commenting”, forming a text dataset. For the network dataset, I stored

data using edge and node tables. The direction of edges was determined by the flow of information, while nodes represented individual users within the interaction network. For the text dataset, each comment was treated as a separate record and stored in tabular form. I used Gephi to visualize the network dataset. Gephi is a well-known network analysis tool recognized for its high-quality visualizations. For sentiment and text analysis, I employed various packages in Weiciyun and R packages as the primary analytical tools. To systematically examine discourse-based interaction behaviors in the online public domain, this study proposes a 3A analytical framework integrating social network analysis (SNA), sentiment analysis (SA), and Latent Dirichlet Allocation (LDA). These three methods complement each other by capturing network structure, emotional dynamics, and thematic content, respectively. The framework is applied to analyze the case study to understand how social media facilitate discursive power to affect planning decisions.

Analytical Framework

First, this study employs SNA as a visualization method to map the pattern of information interactions across the network. SNA is a widely used method for revealing social media information propagation paths and social interaction patterns. Studies have shown that SNA can effectively demonstrate the propagation patterns of information flows through a network and the locations of key nodes, providing a deep understanding of the structure and characteristics of social networks (Hansen et al., 2019). Its strength lies in the visual presentation, which helps researchers to intuitively identify the paths of information diffusion, the core users of the network, and the community structure (Newman, 2010). However, SNA also has some limitations. For example, SNA tends to focus on structural analyses, making it difficult to dig deeper into the content and semantics of interactions among network nodes (Wasserman & Faust, 1994). In addition, since social media networks are usually large in scale, the visualization effect of SNA may be limited in the processing of large-scale datasets. Given its advantage of being able to visualize information dissemination patterns, this study adopts SNA to construct a microblog retweeting network to identify the paths of information flow and the core nodes in the network. SNA enables me to identify key users and information diffusion patterns in online interactions. Through SNA, I construct an interaction network based on post forwarding relationships, where each user is represented as a node and each retweeting behavior as a connecting thread, depicting the pathways and patterns of information propagation. To further identify key nodes within the network and examine the concentration of information dissemination, I utilize Gephi's graph statistics tools to calculate Degree Centrality, adjusting the size of each node in the network graph accordingly. Additionally, I employ Community Detection to identify clusters within the network where information dissemination occurs, setting the color of each node based on its community affiliation. By visualizing the network graph, I effectively illustrate the diffusion paths of information flow and pinpoint the location of core nodes, providing an intuitive mapping of microblogging's information dissemination patterns and distribution characteristics.

Second, SA is conducted to determine the emotional inclination and linguistic neutrality of citizens' comments. It is a text mining method that has been widely used in social media research in recent years, especially for capturing users' emotional tendencies and attitudes. Literature suggests that SA can reveal the overall emotional trends of social media users on specific topics and provide data support for understanding public opinion (Liu, 2012). Its advantage lies in its ability to quantify the sentiment features in a message by quickly classifying a large amount of text, thus revealing the emotional dynamics of microblogging users. However, SA also has its limitations. For example, social media texts often contain complex semantics and contexts, and users use language such as metaphors and sarcasm to express sentiments, and SA models may be biased in identifying these sentiments (Pang & Lee, 2008). In addition, the choice of sentiment lexicon and the accuracy of sentiment categorization may also be influenced by language and culture (Cambria et al., 2017). Nonetheless, SA is still an effective tool for capturing the emotional climate of social media, and therefore SA was chosen for this study to explore the emotional expressions of Weibo users in their comments. It quantifies the affective dimension of user comments, while LDA reveals the latent topical structure of discussions. By combining these approaches, this study aims to bridge structural and semantic analyses, offering a more holistic understanding of how discourse spreads, evolves, and gains emotional resonance in social media environments. With SA, I identify sentiment vocabulary and semantic structures within text to classify the conveyed sentiment as positive, negative, or neutral. In the data processing stage, I first perform preprocessing operations such as word segmentation and deduplication on the microblogging text. I then use Micro Word Cloud (Weiciyun) to score each comment's sentiment and determine its polarity. To ensure the reliability of the results, I also conduct statistical analyses of the sentiment scores, allowing us to discern trends in the overall sentiment distribution.

Third, I adopt the LDA method to uncover potential discussion themes within the text. LDA is an unsupervised machine learning algorithm that identifies latent themes in large-scale text data, offering a deeper understanding of microblogging content. LDA is an unsupervised topic modeling approach that is widely used in academia to mine latent topic structure in large textual data. Studies have shown that LDA is able to reveal hidden topic patterns in textual data, providing researchers with an overall picture of the textual content (Blei et al., 2003). Its advantage lies in the fact that it does not require pre-defined topic categories, and can automatically discover and cluster potential topics from massive amounts of data, making it suitable for exploring the diverse topics discussed by users in social media (Boyd-Graber et al., 2014). However, LDA has some shortcomings, for example, its model results are more sensitive to preprocessing steps and hyperparameter settings, and different parameter choices may lead to variations in the quality and quantity of topics (Chang et al., 2009). In view of its advantages in text topic extraction, this study adopts LDA for topic analysis of microblog comment texts to reveal the main content of users' discussions. In addition, LDA cannot directly explain the specific semantics of each topic, and requires the researcher

to interpret it in the actual context. I accordingly leverage qualitative approach to explain those posts as discourse (Bouvier & Machin, 2020). Initially, I preprocess the text by removing stop words, punctuation, and low-frequency words, while retaining meaningful terms to construct a bag-of-words model. Subsequently, I use the Perplexity metric as the evaluation criterion for model performance when setting the number of topics. Perplexity measures the accuracy of text generation by the LDA model on new data, where a lower value indicates a better model fit. To find the optimal number of topics, I iteratively adjust the topic number, calculate the corresponding perplexity, and select the number with the smallest perplexity as the final model parameter. Once the number of topics is determined, the LDA model clusters similar texts, thereby revealing the main hidden themes. The topic-word distribution and document-topic distribution are further analyzed to explore the characteristics and significance of each theme. Specifically, the topic-word distribution highlights high-weight keywords within each theme, providing insights into its core content, while the document-topic distribution assigns a score to each tweet, reflecting its probability of belonging to different themes. The magnitude of each topic score indicates the tweet's relevance to a specific topic, facilitating content classification and labeling. By aggregating these scores, I identify the most representative themes in the comments accompanying the retweeted post. Additionally, I review the original comments to verify the validity and interpretability of the topic categorization results.

Citizen Strategies to Spread Information in an Online Networks

SNA shows that the Big Banyan controversy on social media forms a sizable network of interactions. The network reveals that a large number of retweets carry textual content that reflects the opinions, criticisms, or discussions of the citizens. In this network, there is a giant network (the core in the figure) and a series of fragmented forwarding chains (the peripheral parts in the figure). Different colors represent different forwarding communities, and each cluster-like community contains a series of closely connected actor nodes, calculated by the Gephi community detection function.

Reviewing the entire development of the controversy, the involvement of network actors formed a series of online networks based on the flow of information. According to the theory of network power, actors embedded in a network hold different levels of influence depending on their structural positions, such as centrality, connectivity, or bridging roles, which shape their ability to control or direct the flow of information (Castells, 2011; He et al., 2024). In the context of digital activism, this structural influence translates into discursive power, enabling central actors not only to amplify certain narratives but also to shape the trajectory of public debate. Network power thus acts as an infrastructural condition for discursive power, determining whose voices are seen, heard, and recirculated within the digital public sphere. The retweet networks in this case consist of a dominant, centralized cluster and a number of fragmented smaller ones (see Figure 6.1). While only a few core nodes achieved wide visibility and reach, the existence of mini-networks

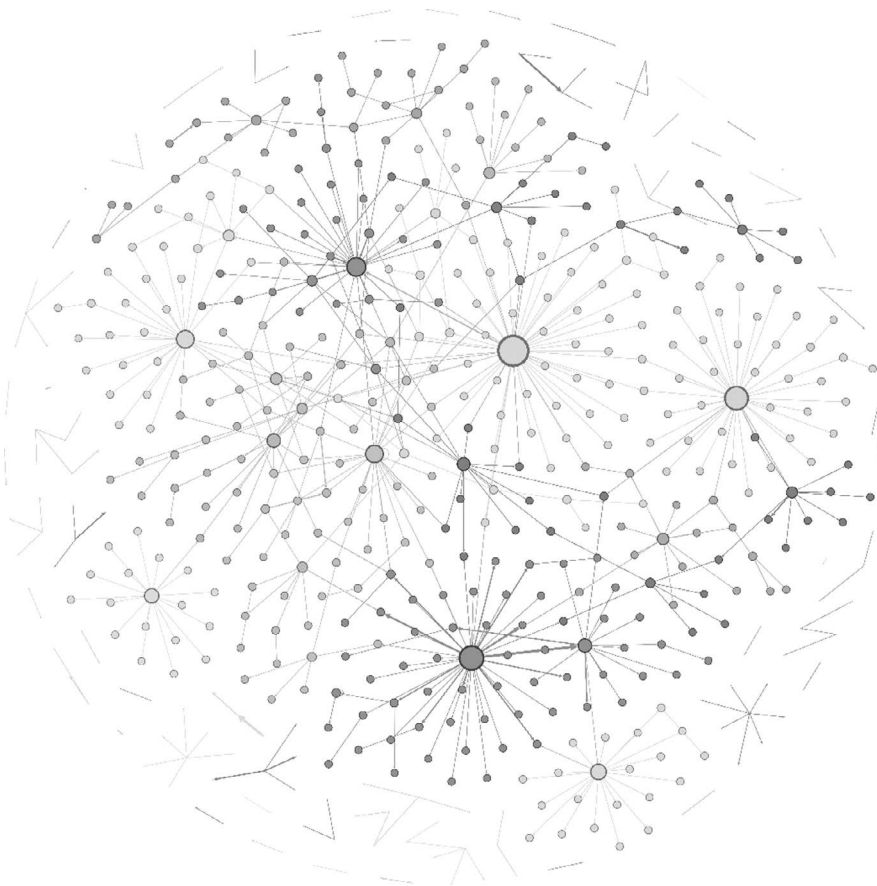


Figure 6.1 The online forwarding networks of Banyan controversy.

suggests that controversy-related topics also gave rise to numerous micro-publics, where dialogue and meaning-making took place. Although not all of these micro-networks evolved into large-scale debates, they illustrate the plurality of discursive arenas within the networked public sphere, reflecting a layered structure of public communication. These co-existing communicative spaces, ranging from highly visible mainstream discussions to more fragmented peripheral dialogues, highlight the interaction between distributed network power and the bottom-up construction of discursive legitimacy. To further understand how citizens leveraged these power dynamics, I examined the original content produced or shared by key nodes. Our analysis identified four major information dissemination strategies through which citizens collectively extended the influence of the network and cultivated legitimacy. These strategies are summarized in [Table 6.1](#).

First, actors in the controversy forwarded a popular article from WeChat platforms to support their ideas on Weibo. A notable example is the widespread sharing

Table 6.1 Citizen strategies to spread information

<i>Strategy</i>	<i>Explanation</i>
Cross-Platform Forwarding	Actors retweet posts from other social media platforms as evidence of their current social media presence.
Forwarding Without Comments	Actors retweet trusted posts directly from others without adding additional comments.
Accumulative Forwarding	Actors retweet different post content from the same hashtag and provide personal insights.
Posting Original Images	Actors post text alongside photos they have taken of the scene.

of the article “How Can I Keep You, Big Banyan Trees along the Pearl River?” This cross-platform information was a major factor in the rapid spread of information online. By leveraging content from other platforms, users demonstrate the presence of a topic from different social media and encourage further discussions within the Weibo community. This suggests the importance of multi-platform dialogue that amplifies the reach and impact of the information. Second, on the Weibo platform, the forwarding mechanism is chain-based, where each repost includes the original content, providing users the option to selectively add their comments. However, some actors in the controversy forwarded posts without adding their own comment, which appears as “(the user) forwarded this Weibo post”. For instance, in the “Big Banyan Tree Controversy”, some citizens opted for this direct forwarding method. This approach increases the likelihood that the post will be seen by a broader audience on Weibo, while maintaining the focus of the original topic. By avoiding personal input, users preserve the original message’s integrity and ensure the topic’s core remains undiluted, which guarantees the concentration of information in information spreading. Third, accumulative forwarding is the strategy of selectively and continuously sharing posts under the same theme to expand influence. In the Banyan Tree Controversy, users reposted various pieces of content surrounding a particular topic. This behavior creates a layered stream of information. By sharing a sequence of related posts, users build a narrative around the subject, extending its reach and reinforcing its significance in the social media space. Fourth, posts that include original images are more convincing. Many users have taken and posted pictures of the Big Banyan Trees from their own opinions, as well as photos documenting the process of destroying trees. This action resembles media reporting and associated with citizen journalism. It means that users not only enhance the credibility of their posts but also offer an immersive and visual experience for their audience.

Reframed the Meaning of Trees with Rationale

In this case, the networked interaction was accompanied by substantial discursive expression. I further extracted and analyzed the content embedded in the network’s edges using SA to detect the emotional dynamics surrounding the Big Banyan Tree controversy. As illustrated in [Figure 6.2](#), the sentiment distribution reveals

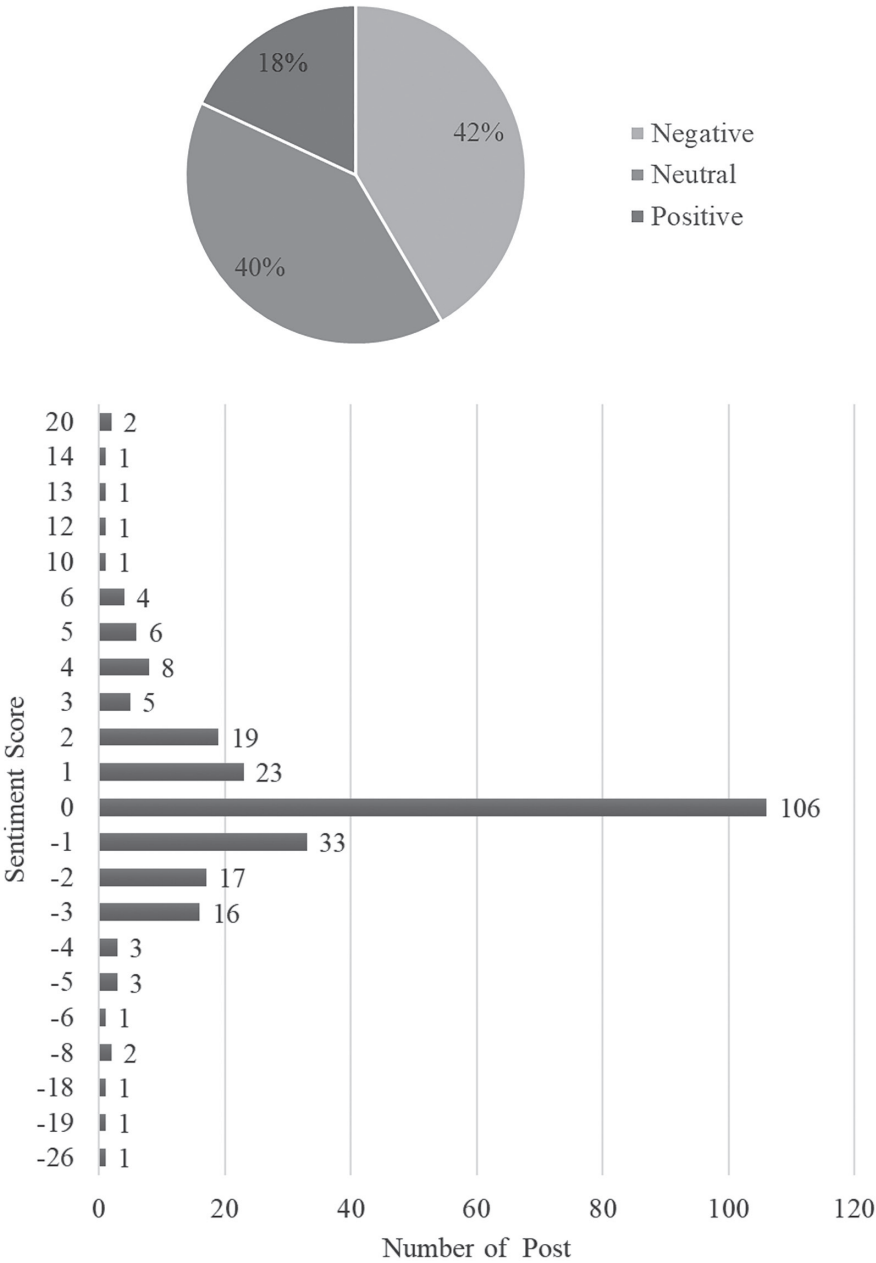


Figure 6.2 Percentage of sentiment (top) and distribution of sentiment score (bottom).

a slightly higher proportion of negative posts ($n = 106$) compared to neutral ones ($n = 103$), while positive posts were relatively fewer ($n = 46$). Many of the negative posts conveyed citizens' frustration, anger, and emotional distress in response to the tree removal. Notably, the near-equal proportions of negative and neutral sentiment constitute a distinctive pattern that diverges from the highly polarized tone typically seen in online controversies. This distribution suggests a mode of affective moderation, where users balance emotional expression with strategic restraint. Such a pattern may reflect a form of rationality in collaborative planning, in which participants operate under constrained conditions related to information access, expressive freedom, and institutional authority. By moderating their emotional tone, they seek to preserve the space for deliberation and maintain discursive legitimacy within a tightly regulated digital environment.

This suggests that citizens participating in the discussion tended to adopt a restrained and composed tone, rather than overtly confrontational or emotionally extreme language. For instance, an actor wrote: "I really enjoy cycling under the dense canopy of banyan trees. It's hard to imagine summer without them". This type of comment reflects a sense of appreciation without direct criticism, expressing concern through lived experience. It exemplifies how users convey sentiment in a calm and descriptive manner. Another post presents a more reflective and affirmative perspective: "I've come to realize that understanding trees isn't just about whether they're old enough. When we place trees in historical and cultural contexts, our perspective completely changes". This positively framed insight encourages a deeper awareness of urban ecology while staying within a constructive and respectful tone. Even in more critical posts, the emotional appeal remains introspective rather than incendiary. As one citizen noted:

To cut down such massive trees is, in itself, inhumane. Old trees command a sense of awe. Seeing so many banyans in Guangdong has always shaped my positive impression of the place and its people. How cruel must someone be to make and carry out such a decision?

Although strongly worded, the post appeals to shared values and emotions rather than explicitly attacking government officials, making it less likely to be flagged or removed under platform censorship. According to [Habermas \(1985\)](#), the legitimacy of public discourse depends on rational and moderate communication. In authoritarian contexts, where expressive freedoms are constrained, adopting a neutral or emotionally balanced tone becomes a strategic choice. Such forms of discourse not only align with the norms of rational public debate but also increase the likelihood of message retention in digital spaces. The Banyan Tree case demonstrates that moderate, affectively restrained expressions can serve as a powerful strategy for articulating dissent, garnering support, and maintaining discursive legitimacy.

In authoritarian or tightly regulated media environments such as contemporary China, the sustainability of public discourse is strongly shaped by platform moderation mechanisms and state-imposed content controls. Emotionally moderate expressions are less likely to be flagged by algorithmic filters or human censors,

increasing their chances of remaining visible. As a result, citizens often adopt a cautious communication style that balances critical intention with rhetorical restraint. This strategic use of temperate language enables individuals to express dissent or concern without triggering punitive measures, thereby creating a space for sustained engagement under restrictive conditions. This communicative practice reflects that subordinate groups challenge hegemonic narratives not through open confrontation, but through a gradual and dispersed cultural struggle. In the online controversy of banyan tree protection, most citizens did not directly oppose the planning authorities but instead reframed the meaning of the trees through narratives of memory, identity, and everyday life. By articulating shared values in emotionally composed tones, they contested the developmentalist logic of urban management and promoted alternative visions of the public good. The prevalence of neutral or near-neutral discourse in this context should therefore not be interpreted as a lack of concern or political disengagement. Rather, it reflects a form of strategic adaptation to a high-pressure communicative environment, one that prioritizes continuity of visibility over emotional intensity. This strategy allows citizens to maintain discursive legitimacy and influence public conversation, even in the face of systemic constraints.

Reaffirming Discourse Legitimacy with Framing Strategies

Citizens' responses to the banyan tree removal controversy in Guangzhou were not limited to emotional reactions. Instead, their discourse demonstrated a strategic effort to justify their concerns across a range of specific subtopics. These subtopics reflect the diverse ways in which legitimacy was reasserted through references to culture, lived experience, ecological reasoning, governance procedures, and institutional accountability. Rather than relying on radical confrontation, participants grounded their arguments in issue-specific expressions that were more likely to circulate within a politically constrained and algorithmically moderated public sphere. To explore the framing mechanisms present in the text dataset, I employed LDA for topic modeling. As part of this analysis, I calculated the perplexity score for various topic numbers to identify the optimal model configuration. As depicted in [Figure 6.3](#), the perplexity value initially decreases with an increasing number of topics, following a U-shaped curve. The minimum perplexity value, approximately 12.51, is observed when the model is configured with nine topics. This trend suggests that the LDA model achieves the best fit for the data when the number of topics is set to nine. Consequently, I selected 9 as the final number of topics to enhance both the accuracy and interpretability of the topic extraction process.

Further reviewing the text on the basis of the thematic extraction, I found nine subtopics as [Table 6.2](#), and identify three core categories. The first category of subtopics emphasized the practical and ecological functions of the trees. In the topic labeled Functional Value and Urban Liveability, users frequently described the cooling benefits and shade provided by banyan trees. These statements highlighted how the removal of the trees could disrupt daily life, particularly in Guangzhou's

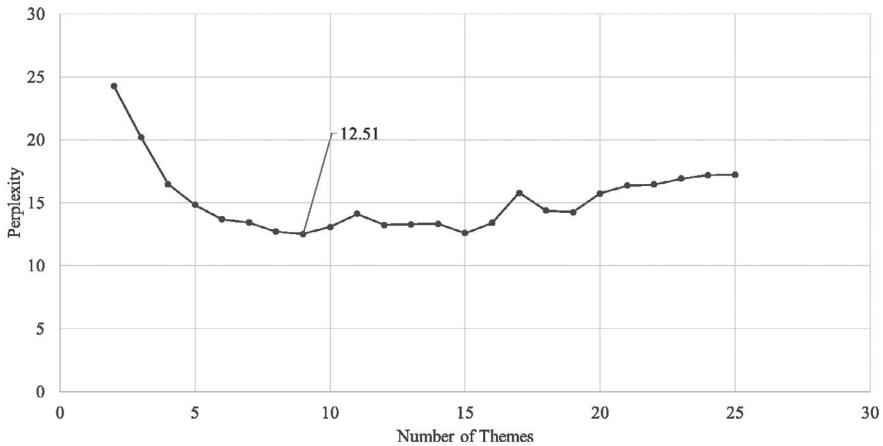


Figure 6.3 Perplexity for different numbers of themes.

subtropical climate. The shadow provided by banyan trees can provide public spaces where people can talk, play, and engage in exercise. Complementing this theme, the topic Scientific Rationality and Policy Critique included posts that referenced biodiversity metrics, tree health assessments, and urban forestry standards. Rather than dismissing official justifications outright, users engaged directly with technocratic language, aiming to reveal inconsistencies or flawed reasoning in the policy logic. The second category of topics focused on the cultural and symbolic dimensions of the banyan tree. In the topic of Cultural Heritage and Local Identity, citizens framed the tree as a historical emblem of Guangzhou. For example, some compared its removal to the demolition of traditional “riding buildings”, suggesting that the loss of the tree would constitute a rupture in the city’s cultural continuity. Closely related was the topic of Place Attachment and Collective Memory, which revealed how users evoked personal memories, family life, and everyday practices tied to the presence of banyan trees. These expressions helped to portray the trees not only as physical elements of the city, but also as part of the collective memory and emotional infrastructure of local communities. The third category of discourse

Table 6.2 Identified subtopics

ID	Subtopic
1	Cultural Heritage and Local Identity
2	Place Attachment and Collective Memory
3	Functional Value and Urban Liveability
4	Governance Transparency and Public Participation
5	Criticism of Performance-Oriented Urban Projects
6	Media Advocacy and the Demand for Supervision
7	Local Autonomy vs. Centralized Standards
8	Scientific Rationality and Policy Critique
9	National Symbolism and State Critique

addressed the legitimacy of the decision-making process. In the topic Governance Transparency and Public Participation, many users questioned who authorized the tree removal and whether sufficient public consultation had occurred. Others expressed dissatisfaction with the lack of openness and the absence of deliberative processes. In the related topic Criticism of Performance-Oriented Urban Projects, citizens voiced concern that the removal of the trees reflected broader patterns of top-down urban interventions aimed at aesthetic beautification and political achievement, rather than genuine public benefit.

In addition to these core themes, several topics reflected attempts to increase the visibility and credibility of the protest itself. In the topic Media Advocacy and the Demand for Supervision, users called for journalistic attention and tagged national and local media outlets, expressing the hope that coverage would help pressure officials to respond. The topic Local Autonomy versus Centralized Standards focused on conflicts between national greening policies and Guangzhou's specific ecological and cultural context. Finally, in National Symbolism and State Critique, some users extended the conversation to a broader political scale, referencing earlier governance failures and suggesting that the tree removal exemplified deeper structural problems within state-society relations. These nine LDA topics demonstrate that public discourse around the banyan tree controversy was organized not around a single narrative, but rather through strategic use of framing. By drawing on cultural memory, emotional attachment, ecological reasoning, and institutional critique, citizens were able to construct a multi-layered discourse that allowed for the reassertion of discursive legitimacy without direct confrontation. This approach made their messages more resilient to censorship and enabled their concerns to circulate more widely in the digital public sphere.

Discussion and Conclusion

Our findings indicate that citizens actively construct and expand discursive legitimacy through the dissemination and proliferation of various topics in online discussions, facilitated by ongoing interactions on social media. This legitimacy-building process is particularly evident in how online dialogues frame certain issues, influencing public perceptions and ultimately forming collective opinions that pose practical challenges to planning authorities (Glozer et al., 2019). By engaging in and amplifying these discussions, citizens contribute to an evolving narrative that can challenge dominant discourses (Carr et al., 2020). This underscores the importance of social media as a new incubator for the public sphere, where citizens can exercise power, reshape power dynamics, and validate their views to gain support from other members of society (Carvalho & Pinto-Coelho, 2019). Furthermore, the legitimacy of public participation in these online platforms demonstrates the complex interaction between public engagement and the influence over policy decisions (Zakhour, 2020).

This study identifies four specific information dissemination strategies employed by citizen actors on social media: Cross-platform forwarding, forwarding without comments, accumulative forwarding, and posting original images. These

strategies allow citizens to increase the visibility and resonance of their concerns in ways that are both scalable and resilient to platform regulation. They contributed to the formation of a collaborative network in which different forwarding patterns sustained issue visibility across digital platforms. Notably, many users paired textual commentary with personal photographs of the banyan trees, which is a tactic that not only enhanced authenticity but also introduced elements of citizen journalism, traditionally the domain of professional journalists (Kim & Lowrey, 2015; Roberts, 2019). Beyond technical dissemination, this study find that emotional restraint played a critical role in shaping discursive legitimacy within the tightly regulated media environment. SA reveals that while negative posts were slightly more prevalent than neutral ones, both categories accounted for the vast majority of the discourse. Posts rarely exhibited strong emotional polarity; instead, most clustered around neutral or mildly negative scores. This distribution reflects a broader communicative strategy of emotional moderation, whereby users conveyed concern, critique, and frustration in tempered and reflective tones. Rather than resorting to overt emotionalism or direct confrontation, citizens grounded their narratives in personal experience and shared memory of banyan trees. In the context of surveillance and content regulation, such moderation becomes a form of strategic adaptation. By calibrating emotional intensity, users increased the likelihood that their discourse would remain visible while minimizing the risk of suppression. This suggests that digital activism under authoritarian conditions is characterized not only by resistance but by a pragmatic negotiation with the constraints of the platform. Through affectively moderated expression, citizens sustained a space for discursive participation and challenged official narratives without jeopardizing their presence in the public sphere.

The study identifies nine discursive subtopics through topic modeling, which are classified into three broader domains. First, the functional and ecological justification of banyan trees underscores their value in Guangzhou's subtropical climate. Citizens emphasized the trees' role in providing shade and supporting daily outdoor life, such as walking, resting, and exercising. These narratives were often supported by scientific references to biodiversity and urban forestry, demonstrating frame bridging between lived experience and technical policy discourse. Second, the discourse adopted cultural and emotional framing, portraying banyan trees as symbols of local identity, collective memory, and historical continuity. Comparisons with the demolition of traditional "riding buildings" illustrate frame diffusion, as the debate shifted from environmental protection to cultural preservation and heritage values. Third, citizens raised concerns about urban governance, criticizing a lack of transparency, limited public consultation, and the aesthetic logic of performance-driven planning. These critiques extended procedural justice frames into the environmental discussion, embedding accountability concerns within a broader planning critique. These framing strategies show how discursive legitimacy was built through a dynamic interplay of ecological, cultural, and political arguments, which improve the discursive power of the public (Lacerda & Rita de Cássia, 2023). By bridging and diffusing frames across domains, citizens crafted a multi-vocal discourse grounded in widely accepted values, such as

sustainability, community well-being, and participatory governance. This framing work gained further traction through the networked nature of the discussion, where social media affordances enabled horizontal circulation, frame alignment, and amplification among loosely connected users. Within the networked public sphere, the strength of a claim depended not only on its emotional or factual content but also on its ability to circulate widely, build connections, and occupy structurally central positions in the discourse network. In this context, framing acted as both a communicative and infrastructural strategy, linking local grievances to shared values while leveraging the structural power of networked attention. Such alignment of discursive and network power allowed citizen voices to maintain relevance and legitimacy even within a tightly moderated and asymmetrical communicative landscape.

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7 The Influence of Digital Technologies on Power Exercises in Collaborative Practices

A Case of Built Heritage in China

Zhen Li

Collaborative Governance, Digitalization, and Power

Collaborative governance is an arrangement that brings public and private stakeholders together in collective forums with public agencies to engage in consensus-oriented decision-making ([Ansell & Gash, 2008](#)). It is regarded as

the processes and structures of public policy decision-making and management that engage people constructively across the boundaries of public agencies, levels of government, and/or the public, private and civic spheres in order to carry out a public purpose that could not otherwise be accomplished.

([Emerson et al., 2012](#), p. 2)

Collaborative governance increasingly relies on digital platforms for communication, decision-making, and public discussion. Digitalization has changed the way collaborative governance operates in many ways. It breaks traditional time and space constraints through online platforms and tools and promotes more stakeholder participation (including geographically dispersed groups) ([Meijer et al., 2019](#)). Studies have shown that digitalization can visualize relevant issues and processes and potentially improve transparency. Digitalization also enables massive information storage, efficient information processing and sharing, and decision support through algorithms ([Maulana & Decman, 2023](#); [Tomor et al., 2019](#)).

Digital platforms including apps are emergingly used to regenerate and preserve heritage sites in China collaboratively. This relates to three trends. First, the redevelopment of heritage districts involves traditional, requiring careful daily maintenance, adaptive reuse, business establishment, and organizing cultural activities ([Pintossi et al., 2023](#); [Zhu & Maags, 2020](#)). The interdependency of stakeholders is increasing; governments can no longer manage massive amounts of heritage by themselves due to the lack of financial, technical, and human resources ([Li et al., 2020](#); [Zhu & Maags, 2020](#)). Second, heritage governance often involves diverging values and conflicting interests. Previous property-led modes of redevelopment have led to tensions between the state, civil society, and citizen protests ([Yung & Chan, 2011](#)). The views and knowledge of different groups of stakeholders, especially citizens, need

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to be integrated into governance processes. Third, recently, the central state has a dual emphasis on historical preservation and technology development to enhance the state's tourism profit and image, as well as technical and cultural impact (Wu & Zhang, 2022).

The effectiveness of collaborative governance relies heavily on power dynamics. There is increasing research highlighting the risks of digitalization introducing new forms of exclusion and domination, reinforcing existing inequalities through biases or control. Previous studies have pointed out issues such as population bias, algorithmic bias, and the control of online platforms (such as technology companies' control over platform governance) may exacerbate power inequality rather than achieve true collaboration (Baud et al., 2014; Lin, 2022; Tenney & Sieber, 2016; Törnberg & Uitermark, 2020). The few studies that do touch upon power issues by discussing data practices (Leszczynski, 2015; Mattern, 2017), hegemonic commercial logics (Cardullo & Kitchin, 2019), and platform politics (Barns, 2019). However, research on power dynamics remains limited, and a comprehensive framework for power analysis of digitalized collaboration is lacking. Understanding power dynamics in digitalized collaborative processes that use digital platforms is essential because it enables critical reflection on how technology shapes inclusivity, equity, and decision-making. Also, assessing power can help stakeholders evaluate the dynamics of a process and develop a greater understanding of the ways in which one can be privileged or marginalized. There are a few studies that examine power exercises within collaborative governance (Hafer et al., 2022; Purdy, 2012; Ran & Qi, 2018); however, these works are still based mainly on offline reality. Additionally, critical perspectives on the role of digitalization in heritage are notably lacking in heritage literature (Waterton & Smith, 2010; Taylor & Gibson, 2017). The ongoing debates widely ignore earlier studies that have shown that digitalization may be enacted to facilitate heritage democratization but can also contribute to strengthening command and control, and that "a vast increase in the use of networks has changed but not diminished the importance of bureaucracy" (Fountain, 2001, p. 62).

This study aims to investigate a digital collaborative platform in southern China that have been practicing digital heritage management for more than five years. I developed an analytical framework incorporating power sources and power arenas to analyze the dynamics of power operations within these platforms. This study's contributions are twofold. First, it contributes to the power debate of digitalized planning and governance by creating a multidimensional power analysis. Second, it provides empirical evidence of how different actors in China's heritage regeneration empower themselves in digitalized interaction. The Chinese context is particularly significant for studying digitalized collaborative governance in heritage regeneration. China's rapid urbanization and emphasis on digital transformation provide a unique setting where traditional and modern approaches to governance coexist. The government's dual priorities—preserving historical and cultural heritage while advancing technological innovation—create a dynamic environment for experimentation with digital platforms. Additionally, China's centralized governance structure, coupled with an increasing push for public participation, offers

critical insights into how power is distributed and negotiated among state, private, and civil society actors in a digitally mediated space.

Assessing Digitally Mediated Power Exercises in Collaborative Governance

Power Arenas and Sources and Digitalization

Power analysis of collaborative governance should focus on power arenas (Purdy, 2012). Power arenas are spaces where power is exercised and contested. According to collaborative governance literature (Booher, 2004, p. 44). The three essential elements embedded in collaborative governance processes are participants, process design, and content. Each of these components provides opportunities for power exercise.

- *Participants* describe who is involved in a collaborative process and who leads it.
- *Process design* describes where, when, and how of collaborative governance, influencing the nature of interaction and the modes that are used for communication and decision-making.
- *Content* of the collaboration describes what issues are addressed and what outcomes are pursued.

However, alongside arenas of power, sources of power are crucial (Purdy, 2012; Li et al., 2024b). Power sources refer to the different bases or resources from which power is derived. According to Purdy (2012), one's power sources include authority, resource-based, and discursive influence.

- *Authority* refers to the socially acknowledged right to exercise judgment, make a decision, or take action (Greenwald, 2007). It is determined by relative status within the institutional context in which the participating actors are embedded. For instance, the authority of a technical company is tied to its rights to design the architecture of a digital platform.
- *Resources* recognize the dependencies among actors involved in collaboration and their ability to deploy resources. In digital collaborations, individuals or organizations may hold different resources, including control over algorithms and data (Coletta & Kitchin, 2017; Van Zoonen, 2016). Resources include not only tangibles such as financial resources, people, infrastructural technology, data and algorithms ownership, and other physical tools/supplies, but also intangibles such as knowledge, information, symbolics, and capabilities relevant to collaboration.
- *Discursive legitimacy* refers to the ability of an individual or organization to represent a discourse or speak on behalf of an issue in the public sphere. One exercises discursive legitimacy when acting on behalf of the values or norms of a society, such as the rule of law, the logic of economic rationality, or principles such as democracy or respect for diverse cultures. Technology literacy and the strategy of speaking contribute significantly to online discursive legitimacy.

Power Analysis Framework Tailored for Digital Platforms

While the above literature provides a robust foundation for understanding power dynamics through arenas (participants, process design, and content) and sources (authority, resources, and discursive legitimacy) of collaborative governance, these theories are still mainly based on offline reality. As collaborative governance gradually transforms to digitalization, the existing power analysis framework is no longer sufficient to cope with the dynamic characteristics of the digital environment. Digitalization may introduce new modes of engagement and power asymmetries. To address these changes, I propose a tailored power analysis framework (Table 7.1) specifically designed for digitalized collaborative governance, integrating these evolving dynamics into the traditional power arenas and sources framework.

Participants Arena: Who Is Involved and Who Leads the Collaboration

In the participant arena, authority can be used to determine who is accessible to digital platforms (Zhang et al., 2019). Authority often rests with those who control the platform’s technical infrastructure and governance mechanisms. Platform administrators, app developers (technical experts), app owners, or organizations that create and enforce legal constraints or permissions for participation (e.g., who

Table 7.1 The power analysis framework

	Authority	Resource	Discursive legitimacy
Participant	• Accessibility to platforms • Selection of participants	• Financial, social, intellectual, technical capacity, and digital infrastructure for participation • Training of participants	• Framed representativeness of participants • Preferential access to or coalition with decision-makers
Process design	• Platform ownership and architecture • Leadership of interaction • Frequency and formality of interaction	• Utility design of platforms • How the process is paid for	• Preferred or acceptable modes of interaction
Content	• Agendas of interaction • Collective direction of collaboration • Gatekeeping roles in diversion, manipulation, misinformation, and censorship	• Algorithmic biases in generation, distribution, interpretation, and analysis of information	• Prioritization of knowledge being considered valid, credible, and impactful • Prioritization of issues being addressed or discussed • Dominant, hegemonic themes or values

can participate, moderation policies, and user roles) hold formal authority over participants. This authority allows them to decide who has the right of participation and voice in collaborative processes. Yet, merely constructing an open, inclusive process may not ensure participation. Resources may influence the number able to participate and how well-informed or expert participants are (Purdy, 2012). Financial, social, intellectual, and technical capacity—along with digital infrastructure for participation—play a critical role in shaping who can meaningfully engage (Zhang et al., 2019). Those with access to advanced digital infrastructure, sufficient funding, training for participants, and relevant knowledge can dominate digital platforms, while those without access face systemic exclusion (Baud et al., 2014; Garau et al., 2015; Van Dijck et al., 2018). This is particularly relevant in stakeholder collaborations where digital divides or technical literacy gaps exist. The discursive influence can be exercised in the participant arena. Discursive framing often dictates which participants are seen as representative or legitimate (Benford & Snow, 2000; Li et al., 2024a). These frames create a perception of authority or authenticity that can marginalize less prominent stakeholders, regardless of their actual relevance or expertise. Some participants may enjoy preferential access to decision-makers or form a coalition with them due to their institutional affiliations or reputational clout. Such advantages enable them to affect decision-makers disproportionately. This can be exacerbated by digital metrics such as follower counts, likes, and shares, which skew perceived legitimacy toward those with higher visibility and engagement. The interplay of authority, resources, and discursive legitimacy defines the inclusivity and accessibility of the participant arena. These dynamics highlight that while digital platforms offer opportunities for broad participation, they can also reinforce existing inequalities and power imbalances, shaping who meaningfully engages in collaborative governance processes.

Process Design Arena: How Collaboration Is Structured

In the process design arena, the influence of power sources—authority, resources, and discursive legitimacy—determines how collaboration is structured and function. Once a process has been designed, the type and duration of interactions determine opportunities for participation and for the use of power (Purdy, 2012). Authority relates to the process design. Authority over process design originates from the ownership and architectural control of digital platforms, leadership in interaction expectations, and regulation of interaction frequency and formality. For instance, those with authority power make decisions regarding the rules of engagement (e.g., moderation policies, voting rights, and data privacy settings) and platform architecture (e.g., dashboards, discussion boards, and access controls) (Tiwana, 2013). The resources allocated to platforms significantly affect the process design of interaction. These resources influence the allocation of operational resources (financial, technical, and institutional support) and whether the functionality of the system in principle can do what is needed, which is the utility of platforms (Nielsen, 1994; Zhang et al., 2019) such as intuitive interfaces and accessibility features. Discursive legitimacy in

process design revolves around determining the preferred or acceptable modes of interaction (Glozer et al., 2019). Actors with established discursive legitimacy can lead to domineering behavior and one-way flows of information (He et al., 2024; Li et al., 2024a). Meanwhile, greater discursive legitimacy can be used to perform a gatekeeping function that ensures equitable participation from all parties. These dynamics address how interactions and decisions unfold within deep-structure notions.

Content Arena: What Issues and Outcomes Are Addressed

Power sources—authority, resources, and discursive legitimacy—shape this arena, determining the direction and outcome of content generation in digital governance. Authority in the content arena is exercised through agenda-setting and collective direction of collaboration (Barzilai-Nahon, 2008). Those with authority decide what issues are prioritized and what types of contributions are included or excluded. For instance, platform moderators or institutional editors may filter content to prioritize specific topics based on coded preferences or commercial interests (Bucher, 2018; Van Dijck et al., 2018). These actions influence the collective direction of the collaboration by focusing attention on particular themes. Authority can also shape content by gatekeeping roles in terms of direct diversion, manipulation, misinformation as well as censorship of information (Gillespie, 2018; Lukes, 2012). Censorship controls what issues and topics are visible and discussable or not (Lin, 2022; Rauchfleisch & Schäfer, 2015). Additionally, discursive influence can also produce misinformation by distorting and selecting information. In the content arena, control over resources directly impacts the generation, interpretation, and analysis of information through algorithmic biases (Coletta & Kitchin, 2017; Rogers, 2021). Stakeholders with access to advanced research tools, data analytics, and communication technologies can create more compelling, data-driven, and visually engaging content. This gives them the upper hand in influencing discussions and swaying decisions. Algorithmic bias is generated using authority and resources by powerful companies to control content. For example, recommendation systems may prioritize certain content, or algorithmic sorting could affect which issues are brought to the forefront of the discussion (Tenney & Sieber, 2016). Discursive legitimacy shapes what knowledge and issues are deemed valid, credible, and impactful (Li et al., 2024a, 2024b). Stakeholders with discursive power prioritize themes aligned with dominant cultural or institutional values, marginalizing alternative viewpoints. Similarly, encouragement and inducement like badges, leaderboards or rewards might manipulate users' real or subjective interests and steer them toward engaging with predefined priorities, reinforcing hegemonic values and overshadowing fewer dominant perspectives.

In sum, this framework allows for the analysis of digital platforms as power arenas where power sources—authority, resource, and discursive legitimacy—shape the roles of participants, the design of collaborative processes, and the content of discussions.

Case and Methodology

I selected one pioneering case—the Chongqing Old Street Mini Program, which is famous for its extensive practical experience in collaborative heritage governance in South China. Chongqing Old Streets is a local nonprofit organization in Chongqing city. Established in April 2011, it focuses on preserving the built and intangible heritage and traditional culture and revitalizing urban and rural areas around Chongqing. This is Chongqing's first and only volunteer-based civil organization dedicated to cultural heritage preservation. In 2016, it was officially registered as a social organization under the People's Republic of China, thereby obtaining formal recognition as an official entity. By 2022, the NGO had grown to over 2,000 members, including teachers, media professionals, civil servants, corporate employees, designers, and individuals from various other sectors. It established a WeChat public account called Old Street.

To ensure a comprehensive analysis of power dynamics, data were collected from multiple sources and triangulated. Between 2022 and 2023, I conducted a total of 33 face-to-face semi-structured interviews. Interviewees included one government official (G1), the NGO leader (N1), one platform designer (D1), and fifteen users (10 citizens and 5 NGO members, U1–U15). The first author participated in various activities organized by Chongqing Old Street, including routine heritage patrols and group discussions with government officials in 2020. The interviews ranged from 1 to 2.5 h. All respondents were asked about their background information, daily practices related to the data-based platform, roles played, concerns and demands, resources and strategies, their experiences using the platform, perceived challenges, and their evaluations of the decision-making process and outcomes. I also did content analysis of the posts and comments on the platforms collected since 2019. Additionally, I reviewed documents including policies and news about the platforms, work manuals obtained from the NGOs, platform promotional materials, and user guides.

NVivo10 was used for coding and analyzing all interviews, observations, and document records. Since our study focused on using interpretive frameworks as a priori coding templates, I adopted a deductive approach during the coding process (Crabtree & Miller, 1992; Fereday & Muir-Cochrane, 2006). I conducted multiple rounds of reflective analysis on the data to identify analytical tools within the framework, such as themes, patterns, and relationships (Berg & Lune, 2001). Each round of analysis provided new insights into power mechanisms and the different sources of influence impacting digital collaborative governance.

Results

Collaborative Actors and Functions of the Platform

The Chongqing Oldstreet Platform (COP) serves as a collaborative platform for multiple stakeholders engaged in heritage governance. Five key actors are involved in this collaborative framework. COP was developed jointly by the NGO

Chongqing Oldstreet with Lingxi Technology, under the proposal of the Chongqing Municipal Heritage Bureau and the Chongqing Municipal Commission of Culture and Tourism Development. First, government institutions play a crucial role in initiation and supervision, including the Municipal Heritage Bureau, the Chongqing Municipal Commission of Culture and Tourism Development, and district heritage management offices. Second, the NGO of Chongqing Old Street actively operates the platform for various participants in heritage preservation. Third, the users include citizens and heritage preservationists, primarily organized by the NGO. Fourth, Tencent Technology provides the basic digital infrastructure of WeChat, as COP is integrated into the WeChat public account of the NGO Chongqing Old Street. Tencent's WeChat is a multifunctional app that combines social networking, payment services, and developer tools, offering a versatile space for digital heritage initiatives. Finally, Lingxi Technology, the platform's technical service provider, is responsible for the design and development of the WeChat mini-program, assisting the NGO in its digital operations.

The platform provides three primary functions: Heritage education, event organization, and training for heritage enthusiasts and preservationists. One of its notable features is the "Heritage Claim" function, which allows citizens to assume responsibility for a specific heritage site by conducting regular inspections and submitting reports. This feature enables users to document their patrol results, upload photos of any issues, and generate posts for real-time inspection. The system uses GPS tracking to pinpoint post locations and employs push notifications to remind users of upcoming patrols. When utilizing the Heritage Claim feature, users can submit posts that are visible to all participants, who can then comment on them. A historical record function allows users to track the progress of their reports, while NGO and government officials follow up on reported issues through investigation and monitoring. In addition to the Heritage Claim function, the platform offers a "Heritage Snap and Report" feature, which enables citizens to: Upload information on damaged cultural relics, allowing relevant authorities to take immediate protective actions or hold responsible parties accountable (e.g., pursuing legal action in cases of illegal heritage destruction); Share and promote stories behind cultural heritage to raise awareness and enhance cultural identity. Beyond these heritage monitoring functions, users can also leave general comments and suggestions regarding heritage protection. Other users can comment on their posts. The platform features two types of discussion forums: One where users comment on posts related to their "claimed" heritage sites (e.g., sharing similar heritage issues and proposing solutions), allowing other citizens and the NGO to provide feedback and engage in discussions. The other forum is for official announcements (NGO or government), such as when the NGO publishes a summary of endangered urban heritage sites, where citizens can comment and contribute to discussions. The NGO leader stated that people are free to express their opinions. When people defend their proposals, critical discussions emerge (N1). Based on submitted reports, the NGO and government agencies compare citizen inputs with official heritage listings and take appropriate action for maintenance and management. The NGO leader emphasized that the platform "stores a vast amount of heritage data, making cultural heritage

protection more efficient and less labor-intensive” (N1). Furthermore, the platform promotes various heritage conservation projects, including initiatives aimed at revitalizing suburban villages through heritage-based tourism. After careful deliberation, the NGO, citizens, and relevant government departments collectively decide which projects to accept or reject. In 2021, for example, many users learned about a suburban village in urgent need of development through the platform and volunteered to help establish a village history museum and compile historical records. In addition to its core functions, the platform also serves as a medium for government and NGO heritage protection initiatives, as well as a marketing channel for cultural tourism products (Figure 7.1).

How are Power Sources Used in Power Arenas?

Participants

An analysis of power within the participant arena reveals the degree of inclusivity in collaborative heritage governance under COP. The technology companies, NGOs, and users involved in the platform’s development and operation hold the authority to access and engage with it. Any citizen can register on WeChat to learn about Chongqing’s cultural heritage and participate in its governance. However, power dynamics shaped by resource access influence participant engagement. The NGO relies on WeChat’s digital infrastructure as a key resource, as WeChat is China’s most widely used social platform. However, WeChat mini-programs require a certain level of technological literacy, favoring younger, tech-savvy demographics who are regular WeChat users. Survey data indicates that 90% of platform users are under the age of 50, while only 10% are over 50 (N1, U1–U8). Discursive legitimacy also influences participation. While the platform is theoretically open to anyone interested in heritage protection, its initial and ongoing promotional efforts primarily targeted professional heritage conservationists and enthusiasts. Research findings indicate that 80% of users are NGO members, who undergo regular training and structured management. This trend can be attributed to the platform’s origins—it was not initially designed for collaborative heritage governance, but rather as an NGO-led initiative aimed at promoting the NGO’s heritage conservation values, documenting its activities, and recruiting new members. According to an NGO interviewee, the push for collaborative governance emerged when the government sought to outsource public heritage services to NGOs to alleviate challenges such as staff shortages, funding constraints, and limited expertise (N1). Consequently, the platform’s primary user base consists of NGO-trained members with some level of heritage expertise. Moreover, ownership, naming rights, and user control remain under the NGO’s authority. Notably, the platform’s name does not include terms like “collaboration” or “public participation”, as it was built upon the NGO’s existing WeChat public account, which could not be renamed. This reduced the likelihood of general citizens discovering the platform by searching keywords (P2). Despite strong interest in heritage preservation among long-time Chongqing residents, many remain unaware of the platform’s existence.

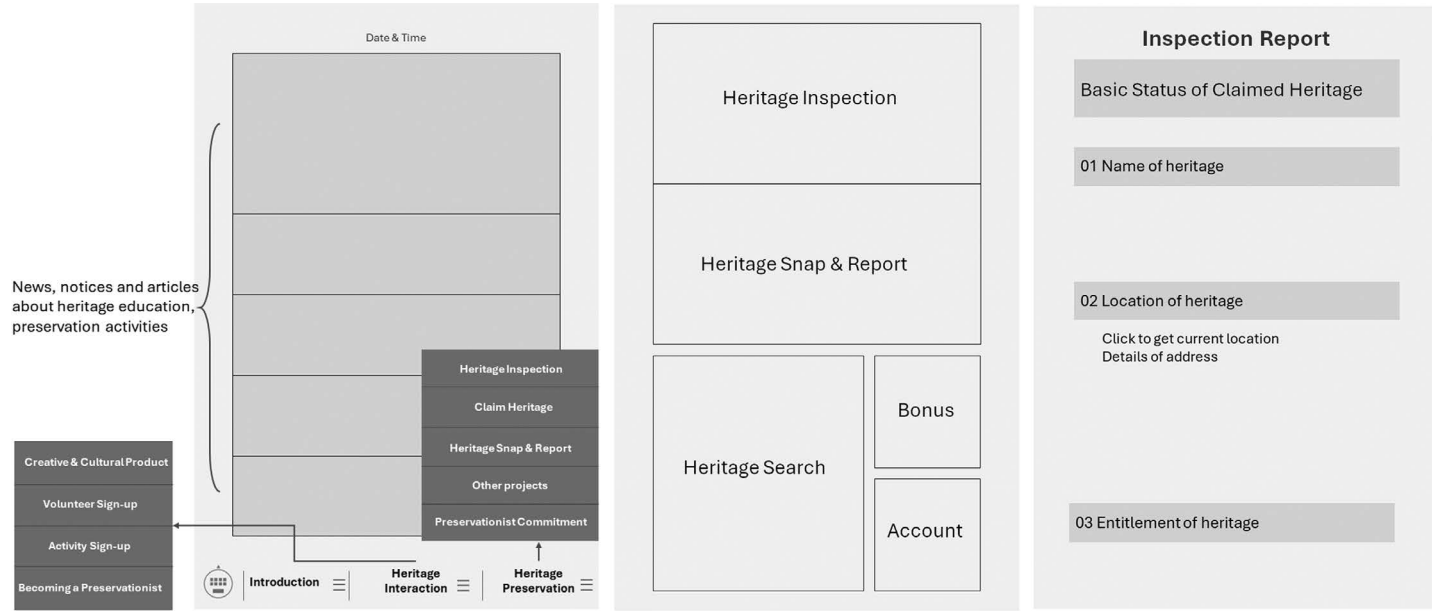


Figure 7.1 Chongqing Oldstreet's WeChat official account homepage menu, main functions, and inspection report.

Those interested in using the Heritage Claim and Patrol functions must join NGO chat groups or formally register as NGO members and undergo some training. This grants the NGO power over participant representation and selection. While this structure enhances participant expertise and fosters community building, it also excludes two groups: Citizens who lack the time or capacity to engage in chat groups or training; Individuals who are not NGO members. For these users, participation difficulties arise when encountering technical issues while using the platform. One year after the platform's launch (mid-2020), the NGO expanded its outreach beyond its own members to enhance heritage education and public oversight. However, promotional content was still primarily written by the NGO and circulated via NGO members' personal networks, other heritage-related NGOs, and heritage enthusiasts. Mainstream media coverage remained limited, with only a few news reports mentioning the platform's existence and benefits but failing to elaborate on participation methods or collaboration outcomes. As a result, public mobilization efforts remained constrained, though the platform's inclusivity had improved to some extent.

Process Design

The power analysis of process design in the arena reveals deeper decision-making dynamics. The ownership and operation rights of the platform belong to the NGO, granting it authority over process design. With the assistance of technology companies, the NGO regulates basic functions and interface usability to ensure that the core features of the mini-program align with the objectives of cultural heritage preservation, such as display, education, and discussion. The platform employs gamification techniques to guide users toward predefined priorities. For instance, users who submit high-quality heritage nomination reports receive digital badges. This approach encourages participation but, at the same time, subtly reinforces the NGO's heritage preservation agenda. Furthermore, the platform's functional availability is limited. It rarely provides features required by private capital and market participants. There is no information on heritage renovation demands, nor are there functions for investment promotion or bidding. This suggests that the government and the NGO do not intend to renovate or repurpose cultural heritage but rather focus primarily on preservation. Some functions preferred by citizens are also restricted. Many citizens wish to donate to endangered heritage sites they care about and track subsequent conservation progress. However, the platform offers almost no crowdfunding mechanism. It has only published two projects aimed at raising funds for heritage renovation, but both had little impact. One major reason is the lack of transparency in fund allocation. As one heritage conservationist stated, "my friends and I considered donating, but this function seems new. Even though there are contacts for fundraisers and project details, we feel there is a lack of accountability. Moreover, there are no successful cases to learn from". Another reason is that the NGO perceives the design and operation of the payment module for donations as complex, and given its limited financial capacity, it needs to control costs.

As the developer of WeChat, Tencent also holds a certain degree of authority, as it controls the platform's basic architecture and stability. The NGO, as the platform's operator, grants data management permissions to its three leaders and the project lead from Lingxi Company, thereby controlling the storage and usage of user data. Some advanced functions, such as comment modification, data analytics access, and historical data retrieval, are restricted to the NGO and Lingxi Company. The NGO and Lingxi Company store data on self-built servers, with WeChat's parent company not involved in data access or modifications. However, under certain circumstances—such as legal requirements, security audits, or technical issue resolution—Tencent may access or modify this information. Regarding data privacy, only one type of information—geolocation—requires explicit user authorization for access. This largely protects users' location privacy. However, to utilize the heritage claim function, which identifies heritage sites' location, users must enable "Allow Access to Geolocation". In practice, this means that users' location data are effectively exposed to the platform's owners and operators. In the process design arena, users are, in principle, allowed to guide discussions, interact, and propose solutions to issues related to Chongqing's cultural heritage. However, the NGO and its members possess stronger leadership. The NGO has a greater capacity to integrate various resources, mobilizing volunteers, experts, and community residents to coordinate participation in the mini-program's interactions and problem-solving. The NGO primarily determines the direction of the discussion areas, as its core members make up 70% of active speakers and hold greater persuasive power. Furthermore, the frequency and form of interactions depend on the NGO as the platform's owner. The NGO is responsible for collecting citizens' opinions and suggestions, as well as promoting and implementing solutions. Yet, citizen reports on heritage issues receive responses that simply indicate "In Progress" or "Resolved", with no room for further discussion or follow-up. As one interviewed user noted, "key decisions still happen offline because real-time dialogue is difficult to achieve on the platform". While the system automatically generates reports based on issues flagged in citizen-submitted heritage inspection reports, in practice, NGO leaders do not use this data directly. Instead, they review and summarize the reports before submitting them to relevant departments, which then distribute them to district-level authorities. The NGO prioritizes constructive citizen comments, and then, these comments are compiled and analyzed in regular discussions between the NGO and government representatives.

Although the government does not directly own the platform, it exercises control over process design through its influence on the NGO. This is because the NGO is a formally registered social organization, and in China. According to the national Regulation for Registration and Management of Social Organizations (last amended in 2016), registered NGOs have the right to seek funding but also have to regularly report to and pass annual inspections by civil affairs authorities. Government control manifests in two aspects. The first hidden government control is security auditing. Although Tencent is a private company, it operates within China's internet regulatory framework, meaning all comments on

the platform undergo security reviews by WeChat's moderation system. Second, there is implicit control over platform functions. Initially, the platform had two types of discussion sections: One for commenting on posts about heritage sites that others had "claimed" and another for commenting on official heritage conservation news. The latter was retained, while the former was removed. The government and NGO justified this decision by arguing that: (1) citizen engagement was low, and the first discussion section was sparsely used, making it unnecessary to maintain; and (2) the NGO believed that unmoderated discussions could evolve into unmeaningful or confrontational debates, potentially destabilizing networked society. Second, users must register with their real names and phone numbers to access key platform functions. This requirement may help trace and hold dissenting voices accountable, but it could also discourage users from raising critical issues altogether. As one citizen put it, "it's difficult for me to report too many negative issues without anonymity. I might choose to express concerns more cautiously offline because online text could be missed out or misunderstood". The above structure reflects efforts by both the government and the NGO to maintain professional and solution-oriented discussions while limiting dissenting opinions. This hierarchy is evident: Although citizens contribute valuable cultural heritage information, final decision-making authority rests with the NGO and the government.

In terms of the resources, the NGO and technology firms control the main technical and human resources to shape the process design, guiding and regulating user's action formality. Some heritage inspection functions are limited to preset options or short comments and cannot support in-depth discussions. For example, the question about heritage safety is "Are there any safety hazards?", and citizens can only answer "Yes" or "No". Text input operations are also limited in length, making it challenging to clearly articulate complex viewpoints. The Lingxi Company stated that this is for technical reasons related to memory and system efficiency. Therefore, it streamlined the process for submitting reports and comments by imposing character limits (N1 and D1). Users who prefer detailed arguments or alternative storytelling formats may be marginalized. To improve this situation, the NGOs sought to expand participation by giving those who want to express more other options, such as setting up WeChat group chats or inviting people to join existing group chats and meet up for offline communication.

In the process design arena, platform's emphasis on specific interaction patterns is reinforced by exercises of discursive legitimacy. Government agencies and NGOs guide use's expression in implicit ways. First, the topic of the preservation and security of heritage sites that have been officially registered as cultural heritage is relatively well discussed. Yet, there are only a few initiatives aimed at revitalizing suburban villages through heritage-based tourism, and the platform only displays basic initiative calls and information. Citizens who want to participate in relevant research and crowdfunding can only do so by contacting NGO and joining its WeChat groups. Second, the promotion and records of heritage protection activities are written by NGO members or the journalists invited by NGOs and the government. These are presented on the platform in the form of articles rather than

posts, occupying most of the daily platform pages. Toward these articles, citizens can click like but not dislike. Citizens can also comment on the articles, but their comments need the permission of the NGO operator to be published. Therefore, whether the comments are published and how fast they are published depends on the frequency of NGO visits and their preference for comments. While there is no official requirement for users to follow specific templates when submitting heritage nomination reports or citizen comments, the discursive space is subtly regulated. For instance, several posts have addressed topics beyond heritage conservation and site safety, such as how certain cultural artifacts could be officially recognized, inquiries into the effectiveness of top-down policies or initiatives, and suggestions for the renewal of historic neighborhoods. In response, some users in the comment section often advise, “this topic can be discussed in group chats”, or “The NGO can provide answers to this question”. Others simply note, “No one here can respond or address this issue”. Such comments implicitly redirect discussions to offline spaces or expert-led conversations, limiting opportunities for public deliberation and the collective formation of legitimacy in the online setting. This phenomenon is partly due to the complex nature of these commented issues. Another reason is relevant to the fact that experts and NGOs maintain general control over heritage-related information. The active commenters are a relatively homogenous group who believe that the NGO and experts know things better.

Content

In the content domain, authority is reflected in agenda-setting, gatekeeping roles, and the prioritization of specific heritage protection narratives. Tencent and the NGO jointly regulate content moderation to ensure digital heritage content meets academic standards, legal regulations, and ethical norms, preventing the spread of misinformation or inappropriate content. Although the platform is intended for public participation, the NGO (and the government behind it) controls the boundaries of discussion by predefining topics, framing questions, and structuring activities. These agendas include heritage claim, where users report unrecognized heritage sites for official acknowledgment; heritage patrol, where users monitor existing heritage sites for damage or threats; and heritage knowledge sharing, where users contribute historical anecdotes or cultural insights. Other heritage-related concerns, such as adaptive reuse or commercial revitalization, are marginalized. I found that the discussion typically centers on traditional cultural values, conservation measures, or policy promotion. This framing limits the diversity of perspectives, making it difficult for citizens to articulate views that contradict official positions. Citizen users (U1–U3) complained that “concerns related to heritage site commercialization or tourism-driven overuse are not included in the platform’s reporting mechanisms”. More contentious issues, such as heritage reuse, demolition disputes, or conflicts of interest, are rarely included. One user (U7) mentioned: “I posted about a historical site being demolished for a commercial project. My post was flagged and removed without explanation”. The NGO’s resources control information and public narrative. The NGO curates and filters user-generated content

to ensure alignment with its objectives. All posts undergo moderation before publication. While this helps maintain quality and accuracy, it also limits user autonomy in shaping heritage discussions. For instance, one user (U5) noted:

I once submitted a post questioning the historical accuracy of a listed heritage site, but it was never published in the discussion section. Rather, the NGO leaders will guide me in discussing it offline. The discussion is fruitful, and they took action for it, but I just feel more people need to know this kind of stuff.

Additionally, while users are encouraged to share stories and experiences on the platform, the most prominently featured content of the discussions comes from the NGO itself. Survey results show that 70% of the platform's top-viewed posts were authored by NGO staff, compared to 30% of general users. This trend suggests that general citizen users' voices are present but secondary in the overall narrative.

Although there is no government sector operating the platform directly, the NGO must align the discourse with government-approved heritage policies. This manifests in two aspects: (1) Censorship of highly critical or aggressively negative comments about the NGO is implemented to maintain the organization's credibility and competence in the eyes of the government. This ensures that the NGO's access to governmental resources and discursive support remains unaffected. Although, as of this study, the NGO claims that such censorship has not occurred, it nonetheless reflects a potential national influence on heritage discourse. The most widely shared posts emphasize national pride, cultural unity, and government-led preservation efforts (D1). (2) In recent years, the state has made significant efforts to enhance national confidence and preserve cultural heritage (Wu et al., 2022). Yet, some scholars state that this might make criticism of government initiatives increasingly irrelevant (Li et al., 2024a; Zhou et al., 2025). Content that challenges official heritage policies on the platform was socially discouraged and received minimal engagement. The content featured and discussed on the platform primarily aligns with official narratives, limiting critical discourse. As a result, the content presented and discussed on the platform remains structurally aligned with the government's heritage agenda, reinforcing top-down control over public discourse.

Algorithmic bias also shapes the content of discussion and governance. While features like likes and shares ostensibly enhance user engagement, the algorithm favors highly interactive content. Users are more likely to encounter socially accepted perspectives or government-endorsed viewpoints, while opinions that are less resonant remain underexposed. According to the Lingxi company (D1), the discussion section presentation resembles social media logics. The frequently discussed content is presented at the top. For example, if a citizen raises objections to a conservation policy in a historic district but fails to gain enough likes or shares, the platform's recommendation system reduces the comment's visibility. The algorithm also downgrades the ranking of comments that have received no comments or posted for over 1 year, rendering them from reaching a wider audience. As a result, the platform's interaction mechanisms reinforce mainstream narratives; its capability to foster diverse discussions is limited.

Nevertheless, some citizens still manage to assert their discursive legitimacy by forming discourse alliances and introducing critical debates. Because the platform allows users to browse and comment on others' posts about heritage sites, it facilitates social connections among like-minded citizens. These individuals engage in discussions by commenting on each other's posts, forming online groups, and even organizing offline visits to investigate various heritage sites. Through these interactions, they engaged in several collective actions. For instance, some users actively participate in heritage inspection discussions, advocating for the protection of historic street districts that are not officially recognized. Others focus on preserving place names, compiling lists in comment sections to suggest which historical names should be retained in the naming of new metro stations. These citizens play an influential role in shaping heritage discourse. These influential citizens share several characteristics: (1) they possess relatively high levels of education, all holding at least a university degree; (2) most are retired, allowing them ample time to engage with the platform; and (3) they have prior experience in offline heritage preservation activities or a strong interest in visiting and studying cultural heritage sites. These attributes equip them with the knowledge, negotiation skills, and energy necessary to navigate and influence heritage discussions within the platform.

Discussion and Conclusion

This chapter explores the power dynamics in digitalized collaborative governance by analyzing a case study of the Chongqing Old Street Platform. Using a power framework that considers authority, resources, and discursive legitimacy within three key arenas (participants, process design, and content), the study has provided insights into how power is exercised, contested, and reinforced in digital heritage governance.

The multidimensional definition of power provided by the framework enables a deeper understanding of the dynamics and outcomes of collaborative processes. It suggests a comprehensive assessment of power across participants, process design, and content, revealing hidden forms of power. This approach can benefit not only researchers and observers but also participants by helping them to recognize their relative strengths and weaknesses and avoid self-serving bias. By understanding how power operates through different arenas and sources, I can more strategically intervene to address power imbalances. For example, by redistributing power sources (such as providing training or open data), I can facilitate more equitable participation in collaborative processes. Moreover, strength in one arena can compensate for weakness in another, making governance more inclusive and encouraging broader participation. In the case study, the NGO demonstrated this by using discursive legitimacy to introduce alternative communication methods when message length restrictions limited citizen engagement. This suggests that powerful actors who own and operate digital platforms can adopt strategies to balance their influence and avoid dominating the process. Such efforts help counteract their resource-based power and create more equitable participation.

The power framework also highlights strategies for less powerful participants to strengthen their influence. For instance, when process design is difficult to change, participants can enhance their discursive legitimacy to increase their impact. Discursive alliances serve as a means to expand participation, share resources, and strengthen legitimacy. In the case study, some citizens used this approach to introduce their own topics and challenge existing narratives.

I concluded that the COP benefits multiple stakeholders by enhancing participation in heritage governance. Citizens gain opportunities to engage in heritage monitoring, education, and conservation projects. The NGO can promote its agenda, mobilize volunteers, streamline management, and expand outreach. The local government relies on the platform to mobilize the NGO's resources and public support for heritage conservation due to its lack of human, financial, and technical capability. Government agencies benefit from efficient data collection, real-time public feedback, and improved heritage oversight. The platform's digital infrastructure, supported by Tencent and Lingxi Technology, ensures some extent of accessibility and coordinated decision-making. These technology companies profit from providing digital services. Overall, COP strengthens collaborative governance by engaging diverse actors and promoting community-driven heritage preservation.

The study highlights that while digital platforms offer enhanced accessibility for various actors, power asymmetries persist. The study contributes to the debate on digitalized collaborative governance by identifying more nuanced forms of exclusion and domination. Power arenas of participants, process design, and content provide opportunities for power dynamics to unfold. In the participant arena, digital platforms help balance power by allowing individuals interested in heritage preservation to access and use basic platform functions. Yet, participant representation remains skewed toward trained NGO members and heritage professionals, while general citizens face engagement challenges due to technical literacy gaps and social barriers. Power is primarily exercised within the process design and content arenas. Actors with significant resources and strong motivations (the government and NGOs) shape process design and control content. The NGO's control over platform governance reinforces a structured approach to participation, privileging institutional actors over spontaneous citizen involvement. The NGO and its technology partner control key process design aspects, influencing how users interact and contribute. While digital platforms theoretically allow for open dialogue, discussions are structured around predefined themes aligned with the government's heritage preservation agenda. The removal of open discussion forums and the requirement for real-name registration suggest an implicit form of governance oversight, shaping the way collaboration unfolds. Content control mechanisms, such as algorithmic bias and moderation policies, prioritize heritage narratives that align with state and NGO perspectives. User-generated content is curated to reinforce dominant heritage discourses, while alternative viewpoints, especially those questioning redevelopment strategies, receive limited visibility. Algorithmic ranking systems amplify mainstream perspectives, reducing the diversity of voices in digitalized

collaborative governance. This system is often driven by the commercial logics of digital platforms, which prioritize content that generates higher engagement and aligns with dominant narratives. This study aligns with existing research on digital inequalities (Baud et al., 2014; Tenney & Sieber, 2016; Törnberg & Uitermark, 2020), reinforcing concerns that technological mediation may reinforce exclusionary practices rather than foster true collaboration. Moreover, I found that the NGO serves the governmental interest through self-censorship. The action of absorbing dissent and maintaining social stability illustrates this point. This reflects the dependency of Chinese NGOs on the governments and their roles as governments' gatekeepers.

This study also offers insights into both online and offline collaborative governance. Online platforms streamline many collaboration processes, making interactions that were previously difficult offline more accessible. Traditional offline collaboration was constrained by factors such as meeting frequency, meeting locations, participation channels (limited to in-person presence), and the costs associated with hosting and attending meetings, including travel, lost work hours, venue expenses, and documentation efforts (Meijer et al., 2019). Online communication significantly reduces the consumption of these resources. However, the integration of these resources within the platform also grants platform owners and operators a monopoly over them. In offline settings, actors can reshape power dynamics by negotiating the process design, benefiting from more flexible interaction mechanisms, immediate contextual feedback, stronger emotional engagement, and greater possibilities for negotiation. For example, participants can influence governance processes by adjusting meeting structures, modifying discussion rules, or introducing new agenda-setting methods. Additionally, face-to-face communication may reduce information asymmetry, allowing stakeholders to articulate their interests more directly and negotiate consensus more effectively. However, our case study of the online platform reveals that process design is largely fixed, leaving limited room for non-owners and non-designers to challenge or modify it. As a result, shifting to offline communication became essential for the participants seeking in-depth discussions in our case.

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8 Governance Models of Community Gardens in Urban China

Motivations, Opportunities, and Challenges

Danning Lu and Hongmei Lu

Introduction

To combat social and environmental problems arising from rapid urbanization, community gardens (CGs) have emerged as an effective initiative to enhance sustainability in cities. Broadly defined as “open spaces managed and operated by members of the local community in which food or flowers are cultivated” (Guitart et al., 2012, p. 364), CGs provide benefits in ecosystem services (Anderson et al., 2019), community organizing (Aptekar, 2015), fresh food access (Taylor & Ard, 2015), public health (Kou et al., 2019), crime reduction, and cultural preservation (Guitart et al., 2012). CGs also provide citizens with opportunities to collectively develop gardens per their needs, which vary by the social context. For instance, in the United States, CGs are built with the primary purposes of food access, economic empowerment, and community activism in disadvantaged groups (Block et al., 2012; Taylor & Ard, 2015), while esthetics or environmental activism are the main motivations for better-off communities (Aptekar, 2015; McVey et al., 2018).

With diversified motives, activists may take the lead in garden initiation, management, and decision-making (Jacob & Rocha, 2021), forming different types of collaborative governance models. Scholars suggest a nuanced continuum of governance structures, with models such as top-down with community engagement or bottom-up with administrative support and professional help (Fox-Kämper et al., 2018). In the West, most CGs are operated bottom-up with civic leadership. Many CGs for food activism benefit from policy advocacy, government funding, and logistical help, signifying civic-state collaborative governance (Block et al., 2012; Taylor & Ard, 2015). Otherwise, local residents may collaborate with planners and horticulturists to better manage the gardens under professional technical assistance (Aptekar, 2015; McVey et al., 2018). However, some countries may feature a more top-down approach in CG development. For instance, in Singapore, the National Parks Board initiated the Community in Bloom program, and collaborated with the grassroots group Residents’ Committee to develop CGs (Tan & Neo, 2009). Gardens can also feature mixed governance models, as governance may change at different stages of the gardens’ life cycle (Jacob & Rocha, 2021).

CGs' governance models are highly contextualized and geographically distinct. However, studies of CGs in Euro-American countries predominate, especially low income areas in the United States (Guitart et al., 2012). A recent CG movement in China led by Shanghai scholar-activists is catching attention. In China, urban green spaces as public goods are usually provided by the government without or with limited public engagement. The emergent collaborative CGs, with activists from the state, civic, and private sectors actively leading local initiatives, are heralded as governance innovation in a highly centralized political system (Liu & Kou, 2019; Mai et al., 2023; Zhang et al., 2022).

A governance model outlines the general leadership accountabilities and decides how leaders and stakeholders interact with each other. Leadership, implying a "leader who is in a position to initiate and help secure resources and support for a collaborative governance regime", is an essential driver and key to reinforcing a collaborative effort (Emerson et al., 2012, p.9). The leading actors' motivations and accessible resources substantially impact the nature of governance. However, there is little research on how leadership and its associated opportunities and challenges may influence the overall success of the collaboration.

This research centers around two questions: What are the governance models of Chinese CGs based on different leadership, and how do leadership-associated factors enable or challenge gardens' thriving in each model? Our study contributes practical insights into CGs' development in a state-centered socio-political context and a theoretical discussion of how leadership can influence collaboration outcomes in different collaborative governance models.

Leadership and the Associated Factors Influencing Governance Models

Collaborative governance refers to processes and structures that engage people across sectors to carry out a public purpose (Emerson et al., 2012). Studies have suggested specific factors in the governance structure that impact successful collaboration, including the prior history of conflict or cooperation, leadership, institutional design, power and resources imbalances, and the incentives for stakeholders to participate (Ansell & Gash, 2008; Bryson et al., 2006). Specifically, leadership plays an important role in facilitating the collaborative process and outcomes (Ansell & Gash, 2008). Bussu and Galanti (2018) recognize three types of identity-based leadership: Political leadership of politicians, managerial leadership of city managers/officials, and civic leadership of communities. Bryson et al. (2006) instead contend two types of role-based leadership: Leadership of sponsors, who have authority and access to resources but participate less in daily work; and leadership of champions, who facilitate the collaborative process and goal achievement. In practice, political or managerial leaders usually sponsor the collaborations, while civic leaders champion daily work.

Principled engagement, shared motivation, and capacity for joint action are three components of collaborative dynamics that generate actions and impact (Emerson et al., 2012, p. 6). We draw on this framework for analytical dimensions

to focus on in collaborative governance models. Other studies summarized more specific variables in the governance structure that impact successful collaboration, including power and resource imbalances, trust building, the prior history of conflict or cooperation, the incentives for stakeholders to participate, leadership, and institutional design (Ansell & Gash, 2008; Bryson et al., 2006).

Specifically, leadership is associated with different collaborative governance models, which imply distinctive opportunities and challenges. In a top-down pathway of collaborative governance, the state leaders have advantages in authority and resources. They can provide authority that legitimizes and enhances the impact of community-based initiatives (Lu & Carter, 2023). In Germany, CGs rely more on state funding and supportive policies because of the history of allotment gardens, which are well-regulated in the German planning system (Wesener et al., 2020). In many post-industrial American Rust Belt cities, food system policies enable the development of CGs, which turn vacant public land into rental plot gardens (Raja et al., 2014). However, political leadership may also face the threats of symbolic participation in decision-making, low citizen efficacy, and a mismatch of expectations (Van Meerkerk, 2019).

Bottom-up civic actions in public service provision can be efficient and low-cost; they may also be seen as a response to the frustration of the top-down pathway. In New Zealand, CGs are more independent from the political-administrative system and feature civic leadership (Wesener et al., 2020). Civic leaders can bring in local knowledge, creativity, networks, and commitment (Van Meerkerk, 2019). Individual actors' passion and garden volunteers' commitment enable success, while a lack of time and continuous contribution can also result in challenges (Wesener et al., 2020).

Finally, in settings where governments and citizens collaborate, leadership is usually shared among actors. In such cases, shared vision and cooperation between different stakeholders, coordinated leadership, and a sense of community are crucial to the success of collaboration for CGs (Wesener et al., 2020). However, competing visions of gardens or conflicts between different groups threaten the survival or thriving of gardens (Aptekar, 2015; Lu, 2022). Van Meerkerk and Edelenbos (2014) analyzed different actors' roles in CG's governance structures and found that public actors generally play a facilitative role between organizations and provide resources like plots and financing, while private actors such as community organizers play a more practical role in managing the gardens. When multiple leaders across sectors are involved in CG development, commitment and collaboration among different leaders are key to the gardens' success. Shared leadership needs to be supported by other conditions. Molenveld et al. (2021) tested conditions that contribute to collaborative success and found no single sufficient condition for garden durability; rather, combinations of financial independence, clear institutional design (rules of engagement), and shared motivation among a small core group of volunteers lead to garden endurance.

Leaders always need to secure necessary resources, such as land and funding, to ensure garden success. Land is one of the most frequently mentioned challenges for garden survival (Guitart et al., 2012). Gardens can be built on private land, public

land, or land that belongs to public institutions like schools, prisons, hospitals, and churches (Guitart et al., 2012). In Stockholm, land reserved for horticulture is divided into plots for allotment gardens where families or individuals have the management rights (Barthel et al., 2010). In the US, some gardens are built on land owned by organizations, while others are built on public lands that the government leases to gardeners (Drake & Lawson, 2015). In Australia, local governments serve as the gatekeepers of CGs by licensing public land and assisting applications (Carrad et al., 2024). Funding is equally important because gardens, especially big gardens, rely more heavily on good infrastructure, which can be very expensive (Drake & Lawson, 2015). In cities supporting CGs, the government may allocate budgets for the development of gardens. Otherwise, garden managers have to raise funds through donations, horticultural sale events, or possible grant applications.

Methodology

Context of Community Garden Development in China

In China, the unparalleled speed of urbanization and acute demands for a better quality of life led to a boom in CGs in the last decade (Zhang et al., 2022). In underserved neighborhoods, green spaces are not only scarce but poorly maintained, while in new neighborhoods, pre-built green spaces do not provide opportunities for civic participation according to their needs. Furthermore, citizens in high-density metropolises face problems including disconnection with nature, aging populations in old neighborhoods (Kou et al., 2019), and the middle-class' growing concerns about food safety with environmental pollution (Scott et al., 2018).

Partially responding to such public appeals, the government issued policies to support urban regeneration and collaborative community governance. At the national level, the new type of urbanization program emphasizes urban quality and promotes the ecological environment as well as community well-being (Yu, 2021). City-level policies such as Implementation Measures of Shanghai Urban Regeneration encourage a human-centered approach to urban micro-regeneration (Ding et al., 2020; Kou et al., 2019). Many cities use CGs as a breakthrough point for the above-mentioned policy initiatives. For instance, the city of Shenzhen piloted the top-down program of community co-creation gardens, which calls on citizens to co-design, co-manage, and co-share the CGs. By the end of 2021, there were 240 CGs developed in Shenzhen.

With an encouraging institutional environment, co-created CGs emerge with goals to increase green space, regenerate old neighborhoods, and enhance residents' participation in community affairs (Mai et al., 2023). Garden types are diversified, including gardens in old neighborhoods for micro-regeneration (Liu & Kou, 2019; Liu et al., 2017), informal pocket gardens spontaneously started by residents (Ding et al., 2020; He & Zhu, 2018; Zhu et al., 2020), school gardens (Peng et al., 2020), and rental plot gardens where food production is dominant (Liu et al., 2013). Different types of gardens are usually developed with different governance models.

Data Collection and Analysis

We employ a qualitative method of grounded theory to investigate governance models of Chinese CGs. Following an iterative process of data collection and analysis, grounded theory offers a useful approach to studying processes where actions and meanings as well as their relationships are made explicit (Charmaz & Thornberg, 2021). Applied in our research, grounded theory allows us to study processes of CG development and understand various stakeholders' actions in the processes. We used a combination of participant observations at CGs and interviews with stakeholders involved in CGs.

We conducted fieldwork in Beijing during May-August 2020 and in Shanghai during August-September 2020. We chose Beijing and Shanghai as they are the two cities in China where CGs first developed (Mai et al., 2023). These two are also the most prominent urban centers that reflect the country's broader trends in innovative policy and governance practices, so CGs in Beijing and Shanghai serve as models for other cities (Ding et al., 2020). The wide variety of CGs and the associated governance models found in these two cities are suitable for understanding different types of CGs within the country. We contacted two leading NGOs of CGs, Friends of Nature · Gaiascope in Beijing and Clover Nature School in Shanghai, respectively, to identify CGs to visit and snowballed for more information about gardening practices that involved grassroots efforts. We also searched with keywords like "community gardens", "civic gardens", and "civic farms" online and visited various types of gardening activities where citizens participated, and the gardens had communal features.

We studied a total of 19 gardens in Beijing and Shanghai (Appendix A). During fieldwork, we observed activities in the gardens and attended meetings or onsite events happening at CGs. We conducted interviews with on-site gardeners, who would also direct us to other key stakeholders, such as volunteer team leaders, garden managers, staff of the Neighborhood Committee (street-level bureaucrats), NGO project coordinators, etc. All interviews were conducted one-on-one, except for two focus group interviews at Beijing's Yu Garden and Kechun Garden.

Guiding questions included the development trajectory of the gardens, interviewees' involvement with the gardens, their motivations of involvement, financing of the gardens, the benefits of gardens, and perceived challenges of the gardens' long-term thriving. We followed an iterative process of data collection and analysis, writing memos, and initially coding interviews to identify emergent types of garden models based on who led the garden development and how the gardens were managed. We conducted follow-up interviews in September-October 2021 and July 2023 with stakeholders in Shanghai to make up for the insufficiency of information about garden development.

All interview notes, along with data from garden meeting recordings, news reports, and social media articles we investigated, were compiled in the software ATLAS.TI for a final round of coding. During the coding process, we analyzed the identity of the leading actor(s) who initiated and/or managed gardens, as leading

actors are key to classifying the governance model and analyzing governance practices within the model (Emerson et al., 2012). While the degree of various actors' involvement and their roles shift through different stages of CGs' development, we use the most prominent aspect to decide the governance model. Then, we also analyzed the underlying motivations and factors that influence gardens' thriving in each model.

Results

CGs in China are developed through collaborative actions between the state, citizens, NGOs, and businesses. Based on the leading actors, we identify three main types of collaborative governance models: State-led, civic-led, and business-led. For each type of governance model, we analyze the motivations, the collaborative process, resources (land and financing), and the enabling factors and challenges of CGs (Table 8.1).

State-led CGs

The state-led governance model resembles a top-down model with professional and community help. State-led CGs are the major type of CGs in China (11 out of 19 gardens). Given the central government's policy advocacy on urban regeneration and collaborative community governance, local administrations use CGs as an entry point to achieve the policy goals. This may explain the dominant role of the state in CG development in China. The "state" refers to the two street-level administrations: The Subdistrict Office and the Neighborhood Committee, with the latter more directly involved. State-led gardens are usually built in public green spaces

Table 8.1 Three governance models of community gardens

<i>Model</i>	<i>State-led gardens</i>	<i>Civic-led gardens</i>	<i>Business-led gardens</i>
Leading actor	• Neighborhood Committee	• Local Residents • NGO	• Companies • Social Enterprises
Land	• Vacant lands in neighborhoods	• Vacant lands in neighborhoods	• Peri-urban farmland • Urban commercial spaces
Financing	• Government	• Residents • NGO • Government	• Business
Motivations	• Neighborhood regeneration • Community governance	• Personal well-being	• Added value and profit • Food safety
Enabling Factors	• Policy support • Funding access • Land use legitimacy	• Commitment of gardeners	• Flexibility in securing land and labor
Challenges	• Civic participation	• Legitimacy	• Profitability

or vacant lots in old, underserved neighborhoods. The street-level administrations usually apply government funding for developing CGs.

In this governance model, the state actors initiate the garden projects, convene partners, and procure services through different stages of garden development. State actors procure services from organizations specializing in CG projects (e.g., [Clover Nature School, n.d.](#)) and engage residents. For example, the two above-mentioned NGOs led CG design and construction workshops at the request of Neighborhood Committees. They also partnered with Neighborhood Committees to invite residents and volunteers to participate in these workshops. During garden management, state actors recruit residents to form garden management teams and provide them with necessary resources. But without enough volunteers, state actors “handle the work themselves” (CF1). NGOs as external partners sometimes also hold activities in CGs, but “Neighborhood Committee-led activities are very frequent, and residents go there when invited to events” (HXH4).

Motivations

State-led gardens are driven by state actors’ need for urban regeneration, promoting community self-governance, and improving social cohesion. These motivations lead to the resources available for state-led CGs. On the other hand, when some motivations are not recognized by other stakeholders, long-term maintenance of CGs becomes difficult.

The most direct driver is the Neighborhood Committee’s responsibility to manage public space and achieve spatial regeneration. Chinese CGs are usually in underserved neighborhoods where problems such as poor environmental conditions, recreation space shortage, and residents’ dissatisfaction are prevalent. Ten of the visited state-led CGs were initiated to transform squalid spaces and increase neighborhood public green space. For example, the Neighborhood Committee initiated Kechun Garden because “the space used to be a trash dump and residents filed lots of complaints ... we want to make the space more beautiful” (KC4). Kechun Garden turned out quite successful ([Figure 8.1](#)). It consists of plants, seats, a rain barrel, two compost bins, painted walls, and art from recycled waste. A 65-year-old resident states that “in the past, I circumvented the area, but now I always go. I bring my grandson over—it’s a quiet space, and I can teach him about plants” (KC1).

Second, state actors adopt CGs as a strategy to promote citizens’ participation in community affairs and collaborative governance. State actors bring together residents and NGOs for garden co-creation. According to the founder of Gaiascope, “Subdistrict Offices commissioned us to carry out CG projects, and all funding comes from the government ... We led residents in participatory design workshops and construction. Take Yu Garden, for example; throughout three years, we led 18 workshops” (YG2). After Yu Garden was built, the Neighborhood Committee recruited residents to form garden management teams and organized events such as harvest festivals. “Around 10 residents maintain the garden on a daily basis, most of them retired female residents who are horticulture lovers” (YG1). A social



Figure 8.1 State-led Kechun garden in an old neighborhood.

Source: Photograph by Danning Lu.

worker based in Qinghe Subdistrict Office articulated the goal of state-led CGs as follows:

CGs are part of the community planner project that aims to improve residents' self-governance. Space regeneration is easy to start with, and the community could see instant results ... We focus on cultivating residents' participation (in community affairs). It might not be successful yet, but residents' sense of and degree of involvement are more important.

(JHG16)

All state actors interviewed mentioned residents' self-governance as a motivation, and 7 out of 10 claimed that CGs enhanced residents' capability of self-governance in neighborhood affairs.

Strengthening social cohesion among residents is a third motivation of state-led CGs. For example, Xin Garden in Shanghai was built with the goal of "improving relations between neighbors and sense of community through gathering like-minded residents" (XG6). Through garden co-creation, neighborhood committees help residents get to know each other and connect. This is particularly important for old neighborhoods where retired elders could feel lonely and bored. The garden team leader of Hongxu Habitat Garden reflected, "I am retired

and have lots of free time, but we are all part of the neighborhood. I want to do something to contribute. My favorite thing is to plant ... I get to know others and stay connected to society” (HXH1). In some cases, state-led CGs also ameliorate the relationship between residents and Neighborhood Committees as residents feel they are served better, generating positive feedback (HXH1, YG4).

Enabling Factors

State-led CGs have the advantages of access to government funding, land-use legitimacy, and policy support. Neighborhood Committees oversee community affairs and are responsible for organizing community events, so they are well-positioned to allocate resources and convene different actors. As one Kechun Neighborhood Committee member claims, “CG resonates with the District Party Committee’s call for enhancing citizen participation in and mobilizing different actors for social governance ... The funding is from the program of ‘building the Party’s relationship with the people’ (dangjian)” (KC4). Similarly, the Clover Nature School receives funding for CGs from local administrations in Shanghai under the policy banners of “neighborhood micro-regeneration” (XYG1, XG1) and “experiment of governance innovation” (Mai et al., 2023). The land of state-led CGs is always secured because Committees already grant legitimacy to use the space when initiating the CGs.

Challenges

The most prominent challenge threatening state-led CGs’ thriving is the continued engagement of residents, mainly because of the institutional inertia and expectation mismatch in a top-down initiative. Despite state actors’ goal to achieve community self-governance and the participatory process, cultivating residents’ capacity for self-governance is a long process, and there is an inertia in relying on the government. Seven Neighborhood Committees’ staff state that recruiting resident volunteers to maintain CGs is difficult, and most resident volunteers are elders. A Committee member pointed out that “ideally it would be residents’ autonomous governance, but in reality, we cannot achieve that 100%. When I can handle the work alone, I just do it ... it’s difficult to mobilize residents” (CF1). Some residents view state-led CGs as state actors’ responsibility and ultimately rely on them, as some say, “I don’t really participate. It’s mainly taken care of by Neighborhood Committee and Party members. They have enough people” (CF3). In addition, conflicting visions cause residents’ dissatisfaction with the gardens, preventing participation: “the design doesn’t fit our situation – the grass grows wild! We don’t need landscape designers. Just listen to residents’ needs” (JQC1).

In summary, state-led CGs reveal the emergence of an innovative, collaborative governance approach in China’s strictly top-down political apparatus. This model is characterized by state actors’ leadership in garden initiative, resource allocation, and partner convening. Nevertheless, difficulty in mobilizing residents in long-term management and a mismatch between residents’ expectations and the state-led CGs’ intended management model threaten the garden’s thriving.

Civic-led CGs

Civic-led CGs are grassroots, spontaneous gardening initiatives in neighborhoods. They are usually small guerrilla gardens claimed by a few residents on vacant land or poorly maintained green spaces. Residents are the leading actors in initiating and maintaining gardens, and sometimes NGOs catalyze and assist residents' gardening initiatives. It is difficult to survey all civic-led CGs as they range from informal vegetable plots (like Garden 12) to gardens that gain formality in later development stages (like Garden 13). Civic-led CGs are usually funded through residents' own money or grants from NGOs, occasionally from government grants. Among the 19 CGs we investigated, only three are civic-led. Compared to state-led gardens, residents have more autonomy, but the gardens' legitimacy is questioned more due to individual occupation of common space, i.e., representativeness of the initiative.

Motivations

The civic-led CGs are motivated mainly by residents' pursuits of well-being and neighborhood regeneration. Many gardens are started by retired elders and horticulture lovers for recreational purposes, so they are internally driven to take care of the gardens and are willing to invest in them. For retired elders, gardening kills time while bringing physical and mental health. A resident around 65 in Beijing's Jiaqichang neighborhood said,

Retired life is boring. I like gardening. It keeps me active, and it is a joy to see plants grow ... It's not for food at all—it would be much easier and cheaper for me to buy vegetables! Just for fun.

(JQC3)

Spending some of his younger years in rural areas, he has gardening skills ready, and gardening brings back farming memories. Other gardeners can be newer to gardening, but fun and hobbies stay core to their motivations: "I only started gardening several years ago. I bought everything myself, including organic fertilizers and insect repellent. I just love it, and when you love it, it's not tiring! Neighbors all appreciate my flowers" (JQC2).

The second motivation is neighborhood regeneration. Civic-led CGs are predominantly in neighborhoods with poorly maintained green spaces. Driven by the need to "see greens" and "beautify neighborhoods", residents take the responsibility of making green space when other actors are absent. Take the Law Garden in Shanghai, for example. The neighborhood was built in 1996, and the developer invested little in managing green space. A retired resident started to plant flowers in a vacant space near her building. This plot later attracted support from the Neighborhood Committee and Nature Clover School's community planning workshops, and was given the formal name of "Law Garden", and engaged more residents. The Law Garden also led to the formation of a neighborhood horticulture club in 2021 that regularly meets to discuss residents' participation in neighborhood regeneration.

Enabling Factors

The biggest advantage of civic-led CGs is the presence of internally motivated actors who can take care of the garden in the long run. Since horticulture lovers, especially elders who have leisure time, started the CGs, they have a sense of ownership and a strong commitment to them. Gardeners describe that they come to the CGs daily to check how the plants are doing. Furthermore, civic-led CGs are usually managed by a small group of people, so the clear allocation of responsibility facilitates gardens' long-term management.

Funding has not been mentioned as an issue for a few reasons. First, residents contribute needed materials themselves and use recyclable materials as much as possible. The JQC2 resident states that he "covers everything myself. I bought these tulips and roses and applied organic fertilizers and insect repellents". Second, civic-led CGs are usually small in size; if funding is needed, the amount would be modest. Third, if the funding is needed, crowdsourcing donations from residents would be the solution. In Law Garden's case, the Neighborhood Committee bought seeds and flowers. NGOs, including the Clover Nature School, sometimes appeal to business investors or government offices to support civic-led CG. Most actors are very willing to support and invest in grassroots gardens.

Challenges

For civic-led gardens, securing land is the biggest challenge. Civic-led gardens operate in a gray area, and their legitimacy is ambiguous due to collective land ownership in neighborhoods. One resident's appropriation of the space could be viewed as an encroachment on others' rights, often causing conflicts among residents and incurring interference from the Neighborhood Committee. A social worker in Jiaqichang neighborhood stated that "some residents were averse to individuals appropriating common green space for vegetables. The limited space allows only a few residents to plant, and conflicts arise between growers and non-growers" (JHG16). Residents would invite third parties, such as the Neighborhood Committee or property management company, to intervene.

There are two ways for civic-led gardens to temporarily overcome the legitimacy issue. One is to obtain recognition from other residents while avoiding interference from regulatory bodies. In cases when regulatory bodies have a weak presence, the gardens, predominantly consisting of ornamental plants, gain acquiescence from neighbors. Despite these gardens' informality, they sustain. The other way is to gain permission from the regulatory bodies through negotiation or partnership with these actors. Gaining land-use legitimacy is the foundation for the success of civic-led gardens. Partnerships with regulatory bodies provide a beneficial alternative to the guerrilla situation of informality.

Business-led CGs

Compared to state-led and citizen-led CGs, business-led CGs are for-profit and market-oriented initiatives started by companies. Business-led CGs take diverse

forms, from suburban rental plot gardens to rooftop gardens on shopping malls. They profit from garden plot leasing, organic produce sales, or nature-based education or recreational programs. We investigated five business-led CGs that represent diverse forms and argued that business-led gardens should count as a special type of CG since gardeners who rent plots are from nearby communities, and gardens provide benefits to nearby communities. While the concept of community here is less definite than a residential neighborhood, gardeners also form a tight-knit community with shared interests and practices where social relations are formed and skills and knowledge exchanges happen. Given the limited land use in high-density cities, business-led gardens can be located in rented suburban farmland (Shi et al., 2011) or commercial spaces in cities, such as shopping mall rooftops (Lu & Ryan, 2022) (Figure 8.2).

Motivations

The foremost motivation of business-led CGs is to promote the value of space and thus profit better, either directly or indirectly. This motivation drives companies to build gardens that could increase the vitality of the space and satisfy the market's demand. A good example is the Shanghai Knowledge & Innovation CG, built on vacant land piled with trash, adjacent to a high-end Business Zone. The business zone's developer invested in turning this eyesore into a beautiful CG, which substantially boosted the business zone's property price. "The real estate group that invested in the residential neighborhood next to the vacant land funded us in the first three years" (KICG2). Other examples include shopping



Figure 8.2 Shopping mall rooftop community gardens.

Source: Photograph by Ruiyu Wang of Urban Shared Farm, SkyCity.

malls attempting to boost their top-floor customer base and business; they either rent out to or directly turn the bare mall rooftops into roof gardens. [Lu and Ryan \(2022\)](#) investigated 40 mall rooftop gardens in Shanghai and found that 77.5% of gardens are for-profit, with businesses ranging from urban farms to horticultural training courses. For the suburban land-renting type, Little Donkey Farm in Beijing turns rented urban farmland into popular community-supported farms (LDF1, HP14).

While business-led CGs are for-profit, gardeners are willing to pay to get recreational experience and organic produce, the two most frequently mentioned and intertwined motivations. According to the staff of Little Donkey Farm, “more than a third of the gardeners are elders. The rest are middle-aged couples and young people who come only on weekends” (LDF1). Similar to elders in civic-led CGs, gardening allows them to get physical exercise and socialize with other gardeners. A gardener in her 60s says,

I have been biking to the farm every day for two years. I was a farmer for one year in my childhood. Gardening brings happiness and healthy vegetables. Produce in supermarkets might have overdose chemicals, so getting my own feels safe.

(HP4)

Nevertheless, most gardeners state that the produce cannot fully meet their demands, and renting plots is more for fun and experience. A professor who rents plots at Little Donkey Farm reflects that: “(the garden) is a multifunctional space. I relieve pressure from work, get exercise, and bring my kid out to play and experience nature. Cannot satisfy vegetable demand, though” (LDF5). Recreation for children is indeed a growing market for business-led CGs, as middle-class families desire to offer their children a nature-based “playground”. A core volunteer states, “I came from rural areas and am really attached to the land. I want my kids to experience nature even in metropolitan Shanghai, so bring them over a lot” (KICG1). Business-led CGs thus satisfy urban citizens’ growing pursuit of recreation in nature and reconnection with food production system.

Enabling Factors

Business-led CGs are more flexible in securing the land or labor force. Some companies rent available lands, such as brownfields or shopping mall rooftops, at low cost. For instance, the Farm of Sky can rent rooftops cheaply as the mall developer believes that rooftop gardens can attract more customers to the mall. Other companies rent land in urban peripheries and sublease small lots to urban gardeners. Land use in this model is secured and legitimate when rented through long-term contracts. Businesses have autonomy over land management, and gardeners can plant vegetables based on their preferences. For example, the Little Donkey Farm rented land from a village in suburban Beijing and divided the land

into many 30-m² plots, which are leased out at the price of 2,500 RMB (around 350 dollars) per plot annually (Shi et al., 2011). The farm provides seeds, fertilizers, irrigation, technical support, and membership benefits for citizen gardeners. As for labor, the businesses usually hire paid professional gardeners, so their commitment is stable. Citizen gardeners who rent plots are self-motivated to take care of their rented plots. Gardener members have high retention and low turnover rates (HP4).

Challenges

Nevertheless, long-term profitability and insufficient policy support are two key challenges to business-led CGs. Organic agriculture and gardening are expensive, and the market share remains small. Even Little Donkey Farm, the first and one of the most successful urban farms in China, barely profits after more than ten years of operation (Shi et al., 2011). Likewise, many shopping mall rooftop gardens struggle with financial stringency (Lu & Ryan, 2022). Such for-profit gardens' longevity relies on accumulated reputation and customers from wide social media exposure. Fortunately, according to our observation, many garden businesses fulfill founders' and staff members' personal goals and vision for food system sustainability. For example, Little Donkey Farm's leading founder, a rural revitalization expert, played a critical role in the Farm's pilot and development. Many business garden leaders are patient and wait for the gardens to become profitable. However, there are still lots of business-led gardens that have been closed after years of financial losses (Lu & Ryan, 2022).

Furthermore, business-led CGs are innovative practices that emerged only in the past decade; the absence of supporting policies further exacerbates the gardens' profitability. For instance, a shopping mall rooftop garden cannot be registered as an urban farming business because the rooftop is not real "land". Legal registration becomes difficult, and the company has to operate more informally (Lu & Ryan, 2022). Meanwhile, rooftops cannot have any extra structures like pergolas or even shading facilities, which should be counted in a building's floor area ratio; otherwise, such "illegal" structures must be demolished by city inspectors. Likewise, for the suburban gardens, the rented farmlands are assigned only for agro-production according to the land-use policy; any building structures such as tool sheds or resting rooms are not allowed, which brings substantial inconvenience to gardeners. Without appropriate policy support, urban farming business operations become difficult, which further influences their profitability.

Discussion

CGs provide a great entry point to discuss collaborative governance in China's urban sustainability transition, which emphasizes multiple stakeholders' participation in social governance. The diverse governance models we observed indicated

increasing non-state actors' participation in public affairs and the importance of leadership in urban sustainability transition. The three types of gardens we found all empower citizens, whether it's the right to participate in community affairs and neighborhood planning, the right to garden in high-density cities, or the right to reconnect with land and recreate. Nevertheless, given the path dependency, the state still plays an important role in terms of policy-making and resource allocation to different degrees.

Our analysis based on leading actors' motivations and social position aligns with top-down and bottom-up governance pathways to some degree (Fox-Kämper et al., 2018; Jacob & Rocha, 2021), but it offers a more nuanced understanding of leadership's influence on opportunities and challenges in each model.

The predominant state-led gardens share similarities with top-down CGs in other countries, like Singapore. In such gardens, state agencies play dominant roles (Tan & Neo, 2009) and provide political/administrative support (Wesener et al., 2020). Different from the Singapore program, where some people refuse to participate due to the close link with government and political control (Tan & Neo, 2009), we find continued and autonomous civic participation to be the main struggle of state-led CGs. State-led CGs' main challenge is sustained citizen commitment due to a potential mismatch of expectations (Van Meerkerk, 2019), but more commonly an inertia to rely on state actors in a non-democratic political context. At the current stage, the leadership and commitment of Neighborhood Committee staff are still critical to state-led gardens' long-term thriving (Lu, 2022). They serve more as champion leaders than sponsor leaders. The state actors' efforts to use CGs as a way to promote public participation and cultivate citizens' sense of self-governance in community affairs still have a long way to go.

For civic-led CGs, gaining land-use legitimacy is challenging since lots of spontaneous gardening stays contentious (Zhu et al., 2020). Our cases have found civic-led CGs to gain temporary legitimacy where neighborhood regulating bodies are weak, and maximizing gardens' positive externalities can boost the chance of legitimization. The CG motivations identified in this research overlap with others such as placemaking and social cohesion found in existing literature (McVey et al., 2018; Wesener et al., 2020), but common themes in Euro-American CGs, including food security and economic empowerment (Aptekar, 2015; Taylor & Ard, 2015) are less prominent in the Chinese case. The latter two are more individual benefits. Civic-led gardens are built on neighborhood collective lands, although many residents like to grow food (Lu & Chen, 2018), civic gardens usually feature ornamental plants to avoid the criticism of land-use "privatization". Civic leaders use ornamental gardens to create more public values for the neighborhood, include environmental esthetics and natural education, with the hope of legitimizing and sustaining their gardens.

For business-led CGs, long-term profitability is the most important factor. Business-led gardens can better satisfy urban citizens' needs to reconnect with food production and nature through hands-on agricultural practices (Kettle, 2014). However, the market share of business-led CGs is relatively small, making it challenging for businesses to survive long-term. Moreover, whether for suburban or

urban rooftop gardens, without policy support to allow necessary facilities for the gardens' operation, urban farming activities become very seasonal and weather-dependent, which greatly undermines profitability (Lu & Ryan, 2022).

In response to challenges in each governance model, we suggest mobilizing more volunteers in state-led CGs, granting legitimacy to civic-led CGs, and providing tailored policies to promote business-led CGs as potential ways to enhance CGs' sustainability. First, to encourage extensive public involvement and improve community self-governance, state leaders need to shift their role from an administrator to a facilitator and mediator (Van Meerkerk & Edelenbos, 2014). The implications are twofold. For one, the Neighborhood Committee, as street-level bureaucrats, has multiple work responsibilities, with CG being only a small focus of their work. Being a sponsor, they do not have to invest much time and energy in the gardens. For the other, residents' potential would be activated when state leaders become sponsors but not managers. For instance, some state-led gardens do not have a continuous budget and sufficient voluntary contributions to garden maintenance. In such cases, the state-led gardens might thrive better if residents' autonomy and voluntarism are mobilized: Residents may organize fundraising or regular maintenance work for the garden, as in civic-led gardens.

Second, residents' interests and needs in gardening should be channeled into community governance actions rather than becoming a source of illegality or conflict (He & Zhu, 2018). Under-served neighborhoods are usually occupied by disadvantaged groups such as retired elders or rural migrants who cannot afford an expensive apartment in well-appointed neighborhoods. Although civic initiatives' representativeness is sometimes questioned (Van Meerkerk, 2019), civic-led gardens provide disadvantaged groups with the opportunity to remake the place and to center their needs in the planning and implementation process. In old neighborhoods, whether CGs should be vegetable gardens or ornamental gardens is always a focal dispute (Lu & Chen, 2018). Civic leaders can work with the Neighborhood Committee to deliberate on issues like garden siting and management, as well as how to maintain justice if not all interested residents can participate in the gardens. For instance, in Lu and Chen's study (2018), a neighborhood Happy Farm was established after land-use conflict resolution; residents can pay an annual fee to become members of the garden. When rules acceptable to the majority are established, the controversial informal CGs will become a win-win solution. This kind of democratic deliberation also serves as the best practice of community self-governance.

Third, for business-led gardens, tailored supportive policy designs for urban farms are necessary to sustain this emergent business model. First, reasonable relaxation of land use regulations and zoning restrictions facilitates this nascent industry's growth. The existing land use policy that farmlands are strictly protected only for agriculture does not fit with the emergent urban farming industry (Lu & Ryan, 2022). Ironically, given the low returns on farming, most young villagers migrate to cities to make a better living, and their lands are abandoned. Such lands are valuable resources for urbanites, who otherwise have claimed brownfields and

rooftops in cities to make CGs (Liu et al., 2019). Renting vacant land for urban farming offers a promising way to reuse land and revitalize rural areas. For rooftop gardens, relaxing the floor area ratio policy to allow more roof gardens can provide not only organic produce but also ecological benefits to improve urban climate resilience. Second, urban farming business differs from traditional agriculture as it requires cross-department policymaking (Lu & Ryan, 2022). The agriculture, business, and planning departments need to sit together and make policies to facilitate urban farming business registration and urban agriculture production.

Conclusions

This research identifies three governance models of CGs—state-led, civic-led, and business-led and finds that while all gardens are developed through collaborative governance, different actors from the state, civic, and private sectors take the leadership role in the three models. Leading actors with different positions and motivations in each governance model also bring distinct opportunities and challenges to each type of garden. For three models, cultivating resident volunteers in state-led gardens, granting legitimacy to civic-led gardens, and tailored policymaking for business-led gardens are critical to each type's long-term thriving. Our findings show possibilities of civic engagement under a centralized political regime while pointing out structural limits and calling for policies that facilitate collaborative urban green space provision.

There are some limitations of this research that future studies can continue to investigate. First, given the number of cases and their individual embeddedness in local contexts, we acknowledge the limitations of our observations for generalization. We chose to examine CGs in Beijing and Shanghai as representatives of CGs' development in urban China because of the leading roles they play (He & Zhu, 2018). Yet, field research from cities beyond Beijing and Shanghai might offer new findings and more nuanced models of garden development and management. Second, the governance typology we proposed serves as an exploratory framework for analyzing CGs in China, but more mixed types can be identified. For instance, there are gardens with a hybrid model in Shanghai that involve both business and citizen volunteers. Gardens emerging in public institutions, such as agro-education gardens (Peng et al., 2020) and therapy gardens in hospitals or elder homes, are also worth exploring. Future research can study the longevity and turnover rate of different types of CGs in China, which is lacking but fruitful for further analysis of influencing factors. The promised benefits of CGs hinge on gardens' long-term thriving, so a systematic examination of the life and death of CGs is an important research area.

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Ethics Declarations

The project is approved by the IRB at Wheaton College (IL). All the subjects have provided appropriate informed consent.

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Appendix A. List of CGs Investigated and Information about Interviews

No.	Garden Name	City	Interviewee Details	Total
1	Jiaqichang Happiness Garden (est. 2019 June)	Beijing	Resident Volunteers—JHG1 to JHG4, JHG14 Residents—JHG5 to JHG11 Staff of Residents’ Committee—JHG12 Staff of Property Management Company—JHG13 Seed Nature Studio designer—JHG15, JHG17 Social Worker—JHG16 Assistant of the garden’s designer—JHG18	18
2	Kechun Garden (est. 2018)	Beijing	Residents—KC1 to KC3 Staff of Residents’ Committee—KC4 Resident Volunteers—KC5 to KC10	10
3	Yu Garden (est. 2017 July)	Beijing	Staff of Residents’ Committee—YG1 FON-Gaiascape designer—YG2 Resident Volunteers—YG3 to YG16 Non-resident Volunteers—YG17 to YG19	19
4	Zhixueyuan Garden (est. 2019 June)	Beijing	Staff of Residents’ Committee—ZXY1 Head of the school garden project—ZXY2 Resident Volunteers—ZXY3, ZXY5, ZXY6 Staff of Property Management Company—ZXY4 Resident—ZXY7 FON-Gaiascape designers—ZXY8, ZXY9	9
5	Cuifu Garden (est. 2019 June)	Beijing	Staff of Residents’ Committee—CF1, CF12 Residents—CF2 to CF8, CF13, excluding CF6 Resident Volunteers—CF6, CF9 to CF11 Staff of NGO that funded the garden—CF14	14

(Continued)

<i>No.</i>	<i>Garden Name</i>	<i>City</i>	<i>Interviewee Details</i>	<i>Total</i>
6	Hongxu Habitat Garden (est. 2019 November)	Shanghai	Resident Volunteer—HXH1 Staff of Residents' Committee—HXH2 Resident—HXH3 Staff of Clover Nature School—HXH4	4
7	Hongxu Vegetable Garden (est. 2018 March)	Shanghai	Resident Volunteers—HXV1, HXV3 Staff of Residents' Committee—HXV2	3
8	363 Fun Garden (est. 2016)	Shanghai	Staff of Clover Nature School—FUN1	1
9	Herb Garden (est. 2014)	Shanghai	Resident—HG1 Staff of Clover Nature School—HG2	2
10	Xin Garden (est. 2018)	Shanghai	Resident Volunteers—XG1 to XG4 Staff of Clover Nature School—XG5 Staff of Residents' Committee—XG6	6
11	Xinyi Garden (est. 2019)	Shanghai	Staff of Residents' Committee—XYG1 Resident Volunteers—XYG2, XYG3	3
12	Jiaqichang residents' plots (est. 2019)	Beijing	Resident Gardener—JQC1 to JQC3	3
13	Law Garden (est. 2021)	Shanghai	Residents Volunteers—FG1, FG2	2
14	Tsin and Liu's garden (est. 2020)	Shanghai	Ms. Tsin who is in charge of the garden	1
15	Little Donkey Farm (est. 2008 April)	Beijing	Farm Staff—LDF1 to LDF3 Citizen Gardeners—LDF4 to LDF16	16
16	Happy Farm (est. 2010)	Beijing	Citizen Gardeners—HF1 to HF20	20
17	Train Garden (est. 2017)	Shanghai	Staff Gardener—TG1 Staff of Clover Nature School—TG2	2
18	Farm of Sky (est. 2017)	Shanghai	Couple managers and two employees of the company	4
19	Knowledge and Innovation Community Garden (KICG) (est. 2016)	Shanghai	Non-resident Volunteers—KIC1, KIC3 to KIC5 Staff of Clover Nature School—KIC2, KIC9 Resident—KIC6 to KIC8 Resident Volunteer—KIC10 Staff of Residents' Committee—KIC11	11

9 Community Participation in Environmental Governance in Guangzhou

Xinhu Liu, Weijue Guo, and Zheng Liu

Introduction

The concept of environmental governance has emerged in response to the growing need to address environmental issues, which require multi-stakeholder participation, coordination, and cooperation (Bodin, 2017; Lemos & Agrawal, 2006; Newig et al., 2010). Contemporary models of environmental governance have attracted significant attention largely because they can generate multiple benefits. By engaging diverse stakeholders, environmental governance can increase local property value through ecological restoration (Li et al., 2021), enhance community cohesion while fostering environmental awareness and cultural identity (Forsyth, 2020), and improve overall quality of life during the governance process (Te Lintelo et al., 2018). This capacity to integrate environmental, economic, and social objectives distinguishes contemporary environmental governance from traditional pollution-control approaches, positioning it as a comprehensive framework for sustainable regional development (Zhang et al., 2020).

Collaborative planning, a widely studied theoretical framework, can help illuminate how multiple actors interact through institutionalized participation channels and communication mechanisms (Foroughi et al., 2023; Healey, 2020). Existing research on collaborative planning has predominantly emphasized the process through actors interact in communicative practices to build shared understanding and consensus, thereby strengthening stakeholder identification with plans and ultimately supporting more effective implementation (Jager et al., 2020). The engagement of civil society and local communities in collaborative processes is crucial to address complex environmental problems. However, important questions remain regarding how collaborative structures are initially formed, how community participation is organized and maintained, and what conditions support the durability of these arrangements.

Social capital also plays a crucial role in achieving social, economic, and environmental benefits through effective environmental governance. Putnam's classical logical chain of "civic participation—social trust—cooperative performance" provides a theoretical foundation for understanding the role of social capital (Putnam, 1993). Some studies find that environmental issues, as complex public problems, are characterized by cross-boundary attributes, uncertainty, and stakeholder

diversification (Christensen et al., 1996). On the one hand, daily interactions allow residents to develop local knowledge and community trust (Reed et al., 2010). On the other hand, voluntary organizations and collective action help cultivate shared community value (Pretty & Ward, 2001). Empirical studies further indicate that social capital helps reduce coordination costs, incubate organizations, and facilitate the implementation of public policies (Wu, 2012). However, the role of social capital in environmental governance is still overlooked in existing studies, especially how social capital is built and evolves in dealing with environmental issues.

This chapter examines the case of Sima Stream in Guangzhou to explore how various stakeholders collaborate in environmental governance, with particular attention to the role of community participation and social capital in shaping this process. We reviewed policy documents and news reports from 2006 to 2025, including the Greenway Planning Scheme, River Chief Implementation Scheme, and relevant social media materials. We conducted semi-structured interviews with 16 key stakeholders (eight government officials, two nongovernmental organizations (NGO) leaders, four non-governmental river chiefs (NGRC), and two experts). Each interview lasted over 60 minutes. The primary focus of the interviews is on their roles, responsibilities, and patterns of collaboration in environmental governance. Additionally, we collected 80 questionnaires from residents of the Caihong Community on their participation in environmental governance and sense of community cohesion, and conducted participant observation to understand the relationship between environmental improvements and community cohesion.

The Shifting Government Philosophy in China

In 2012, the central government announced ecological civilization as a guiding national development philosophy in China, asserting that “Lucid Waters and Lush Mountains Are Invaluable Assets”. It signified that urban development must shift from pursuing mere economic growth to pursuing high-quality development, making environmental governance a key measure and important indicator of urban modernization. Meanwhile, this shift has made citizen participation and stakeholder collaboration increasingly important in environmental governance. In 2025, the state conference on urban development further emphasizes the importance of governance input in future urban affairs.

The development of Ecological Civilization exerts a strong influence on institutional design and policy-making. Traditional urban planning followed a control approach, focused on economic targets, viewing environmental factors as technical constraints for development control. However, globalization, marketization, and decentralization have led to diversification, fragmentation, social inequality, and serious environmental problems (Lemos & Agrawal, 2006), which cannot be adequately solved by a development control-oriented planning system. To tackle these issues, urban planning has been shifting toward a more collaborative and localized approach, focusing on envisioning a development strategy. A good case in point is the implementation of the community planner system. With the expansion of concepts such as livability, ecological health, and social equity, master planning and regional

planning have integrated ecological development goals into their control systems. Simultaneously, China's spatial governance approach has undergone a transformation to achieve its ecological development goals. It emphasizes local governance practices, focusing on enhancing participation, interaction, and collaboration between government and social actors through institutional innovation (Tang, 2015).

Unlike Western collaborative governance, which often emerges from bottom-up initiatives, China's approach is actively shaped by the state. Through innovations in local governance practices, a hybrid arrangement has taken shape that combines top-down coordination with bottom-up engagement. For example, the Guangdong Provincial Government has been proactively and pragmatically refining its regional policies to address governance issues in early practices, combining limited scopes of participation within top-down institutional arrangements (Liu et al., 2024). This reflects China's distinctive approach of promoting social participation while maintaining centralized political authority, setting it apart from Western collaborative frameworks.

Environmental Governance in Guangzhou

The stream restoration practice in Guangzhou is a special example for understanding the transformation of China's environmental governance. Given that stream management is a comprehensive task that requires interdepartmental coordination, it has long posed significant governance challenges for Guangzhou. Streams are not only important ecological infrastructures in the city, but also carry unique cultural value as part of Lingnan waterfront culture. However, Guangzhou has been suffering from environmental problems in a highly developed urban environment, with limited financial support and numerous stakeholders. The governance dilemma stems from the superposition effects of multiple factors, including industrial pollution during economic development, domestic sewage discharge from rapid population growth, and other multiple pollution sources intertwining (Li et al., 2017). Climate change has exacerbated the problem, as outdated sewage facilities struggle to process sewage in a timely manner after heavy rainstorms, resulting in sewage entering streams (Xu et al., 2019).

In 2009, Guangzhou invested substantial funds in water treatment, but the improvements were difficult to sustain, triggering widespread social criticism. In response to the failure of unsustainable governance models, Guangzhou began exploring new governance approaches. For instance, in 2017, the River Chief System (RCS) established a four-tier accountability hierarchy (i.e., city, district, town/street, village/community) for river governance, built upon China's administrative hierarchy and the tradition of party-government integrated accountability. The heads of municipal and district governments and street offices must appoint river chiefs according to their jurisdictions. This unique institutional design provides additional guarantee for stream governance, as each river chief is assigned full responsibility for a certain water body, supported by regional River Chief Offices. The River Chief Offices not only undertake daily management functions but, more importantly, provide platforms for local residents to participate in stream

governance. The River Chief Offices value the cultivation and mobilization of diverse actors as components of stream governance, ultimately forming a governance framework featuring government leadership, social coordination, and civic engagement.

Additionally, Guangzhou has been pursuing synergistic benefits from ecological restoration. In 2018, the Blueway Plan proposed to transform traditional river management to ecological corridor construction. It aims to develop ecological corridors that simultaneously serve as “safe flood discharge channels, natural ecological corridors, and cultural leisure walkways”. It is crucial to avoid a “one-size-fits-all” approach to greenway typologies and planning activities, which has become a challenge for multi-purpose greenway planning in urban environments (Liu et al., 2020).

The Restoration of Sima Stream

The governance of Sima Stream serves as a representative case study, encapsulating the full trajectory of social governance innovation in Guangzhou (Figure 9.1). Sima Stream is located in the core of Liwan’s old town, and this research focuses on a 4.94-kilometer section within the Caihong Sub-district, which forms part of the stream’s total 7.7-kilometer length. This area encompasses six residential communities: Xihua, Xianjia, Xiaoqiao Chongji, Fuli, Nanyuan, and Tianjian. The community is characterized by a rich cultural heritage, active civic participation, and a strong sense of community identity. Most residents in the Sima Stream area are longtime residents with a pressing need for environmental improvement, providing a solid foundation for social mobilization and community participation in environmental governance.

Due to limited infrastructure and a constrained financial budget, the governance of Sima Stream has shifted toward participatory management to reduce the management costs. At the same time, the area’s long-term residents have demonstrated both a willingness to engage in public affairs and the establishment of preliminary social networks. This alignment between governance needs and community capacity makes Sima Stream an ideal case for examining the dynamics of community participation in collaborative practices and the role of social capital in environmental governance.

Historical Evolution of Sima Stream’s Governance

The evolution of Sima Stream’s governance can be divided into four phases, marked by three key events: The launch of Guangzhou’s water treatment initiative for the Asian Games, the widespread re-deterioration of the streams, and the implementation of the RCS. Each phase displays unique governance characteristics:

Phase one (1970s–2008): Characterized by a lack of governance and progressive environmental deterioration. Phase two (2008–2010): Marked by a one-off, large-scale intervention to prepare for the 2010 Asian Games. Phase three (2011–2016): Witnessed the spontaneous emergence of community participation in response to

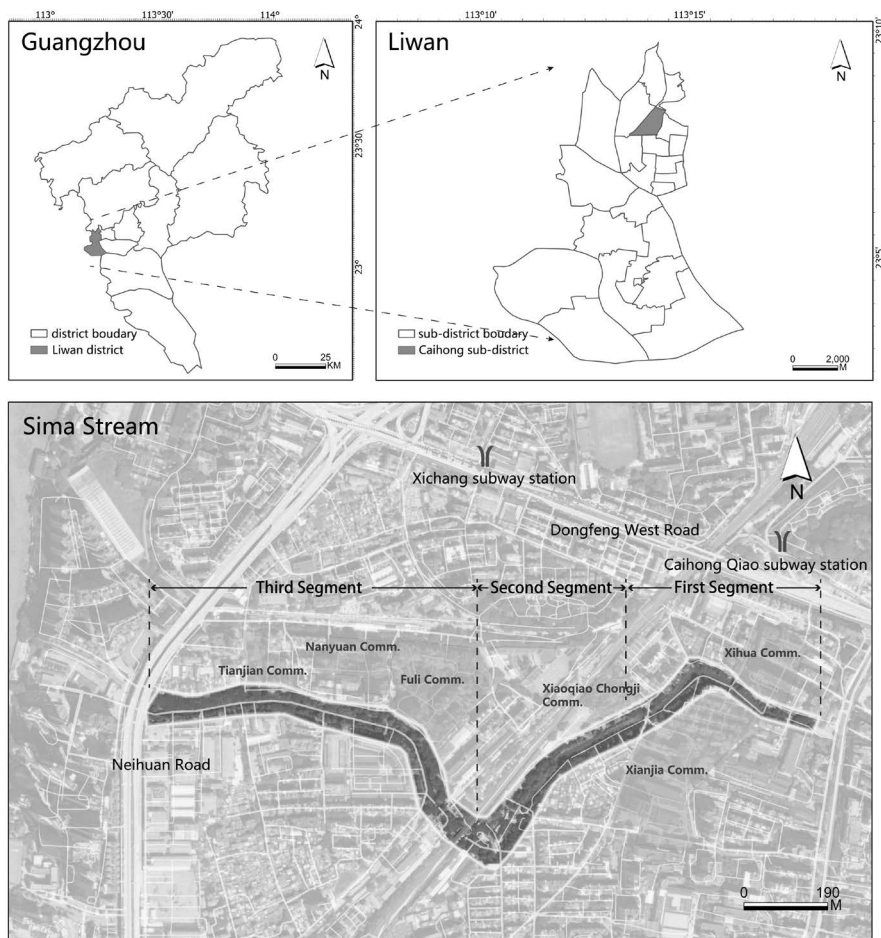


Figure 9.1 Geographic location and present construction status of the Sima Stream area.

the ineffectiveness of previous governance efforts. Phase four (2017–present): Features institutionalized cooperation between the government and the community.

Community participation became a critical factor in Phases Three and Four, transforming the governance model from a purely top-down approach to a collaborative one that successfully eliminated the “black and odorous” water bodies by 2021.

Phase One (1970s–2008): Environmental Deterioration and Governance Absence

The first phase was characterized by rapid environmental deterioration driven by accelerated urbanization and weak environmental protection consciousness among citizens. This situation epitomized a development-oriented governance pattern that prioritized economic growth over environmental protection.

In the 1970s, Sima Stream presented a natural state with clear river water, serving as an important water source for the daily life of surrounding residents. However, this situation changed with the advancement of the reform and opening-up. With rapid urbanization, the population along the banks surged by the 1980s, and the resulting growth in population density brought environmental pressure (Azzam et al., 2013).

The discharge of domestic waste and sewage polluted the Sima Stream and gradually turned the river water black and foul-smelling. The fundamental cause of this environmental deterioration was an imbalance in the growth-oriented development paradigm, which failed to provide adequate municipal environmental infrastructure. Besides lagging infrastructure construction, the orientation of prioritizing economic development also led to insufficient environmental protection awareness. Local governments are more concerned about economic growth than environmental quality, due to gross domestic product (GDP)-focused achievements evaluation criteria.

During this period, residents' environmental awareness was weak, while factories continued to discharge without restraint. A news report (Zhang, 2008) criticized the widespread pollution, highlighting how urban streams had become open sewers due to indiscriminate dumping of pollutants. The report showed that:

There are many pipes along both sides leading to the stream, not to mention domestic sewage, and some even connected their home toilet pipes to the stream. Many citizens laid cement boards directly across streams, putting waterways under their balconies and turning them into covered channels. Many people threw domestic garbage randomly, and vendors from nearby markets often threw leftover vegetables into the streams. When the tide rises, the stream surface is covered with garbage. There are 65 streams in the central urban area, with water quality generally classified as inferior Class 5 water. Approximately 1.24 million tons of domestic sewage were discharged directly into the Pearl River through these streams daily.

Phase Two (2008–2010): Water Treatment and Infrastructure-Focused Approach before the 2010 Asian Games

The second phase was characterized by the government investing in large-scale infrastructure renovation, which the municipal government took as an opportunity to implement a top-down, resource-intensive approach before the 2010 Asian Games. Guangzhou officially launched the Comprehensive Water Treatment Campaign, the largest and most expensive water environment governance initiative in the city's history. The campaign involved the systematic renovation of 121 streams citywide, covering over 80% of the city's water system. From a financial perspective, the total investment reached 48.6 billion yuan, equivalent to most of Guangzhou's 2008 annual general budget revenue of 62.2 billion CNY. This intensive, capital-driven engineering approach yielded immediate results. During the Asian Games, the water

quality of key streams like Sima Stream improved, water transparency increased, odors were largely eliminated, and the riverbank landscapes were enhanced.

However, this governance model, which lacked sustainable safeguard mechanisms, quickly revealed its flaws. After the Asian Games concluded, the streams experienced a pollution rebound, as the temporary cleanup had not been accompanied by systematic regulation or fundamental environmental remediation. As the internal motivation for governance declined, the “re-blackening and re-stinking” phenomenon emerged. The extent of this rebound was severe: Data from the Guangzhou Environmental Protection Bureau in 2013 showed that among 50 streams, 39 had inferior Class V water quality, accounting for 78%, with only the Dasha River meeting the required standards.

Community residents suffered greatly from this relapse, yet they had no voice in the government’s decision-making processes, nor did they have effective channels to report and supervise polluting behaviors. Scholars criticized the effectiveness of Guangzhou’s 48.6 billion yuan stream governance program, noting that it relied on pumping water daily to flush the riverbeds—a costly approach that could not be sustained in the long term.

Phase Three (2011–2016): Emerging Community Participation with Re-blackening and Re-stinking of Streams

In 2009, following the setback of the government-led approach and the continued deterioration of the stream environments, civil society actors began to voluntarily organize to fill the governance void. The Guangzhou Youth Volunteer Association established an environmental protection team. Some members of this team went on to form the Green Life Environmental Protection Promotion Association (GEP). GEP assembled a professional volunteer team through online platforms and social recruitment, composed of environmental science students, university scholars, environmental engineers, and other professionals with expertise in environmental protection and water quality monitoring. In 2012, GEP shifted its focus to water treatment and began to systematically participate in Guangzhou’s stream governance. In the same year, residents of the Sima Stream area started joining GEP on stream patrols and introduced GEP to other residents living along the stream. GEP provided environmental education to the public and training for volunteers, acting as a bridge between professional organizations and grassroots communities by transferring specialized knowledge to local residents.

Community participation rapidly extended from professional groups to the grassroots level, transitioning from an elite-oriented to a mass-oriented movement. The establishment of the Caihong Sub-district Office in 2013 marked the formal launch of community-level environmental protection actions. Subsequently, the Community Stream Patrol Group (CSPG), a grassroots organization dedicated to protecting the stream’s environment and water quality, was formed. After receiving training in water quality monitoring from GEP, CSPG utilized its local knowledge to begin patrol activities. The group grew from an initial approximately 6 members to 19 members, establishing a semi-annual assessment system and conducting regular stream patrols every Wednesday (Figure 9.2).

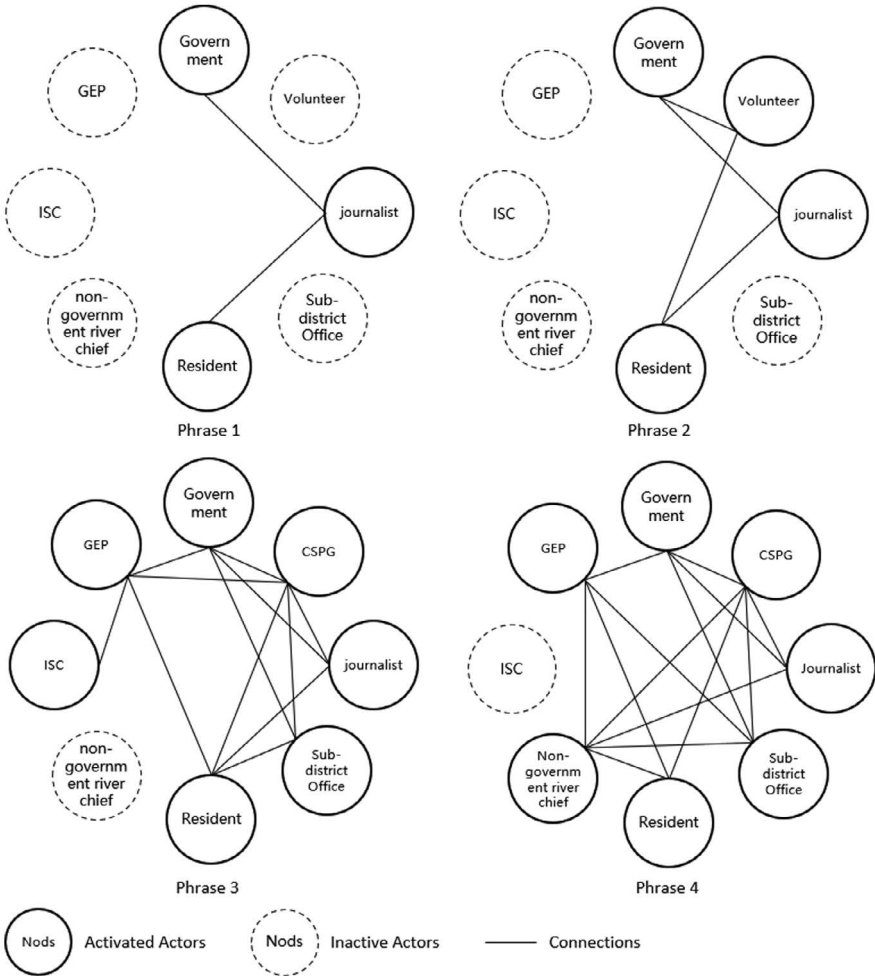


Figure 9.2 Evolution of actor network.

Thanks to the *Southern Metropolis Daily*, GEP held a meeting with water affairs departments to discuss stream remediation, marking the beginning of collaboration between the government and the community. The effectiveness of community participation was demonstrated during the 2015 “Red River Outbreak”, which served as a powerful example of the community’s capacity for collaborative governance. When Sima Stream turned into a “Red River” after days of heavy rains, the CSPG immediately conducted on-site sampling and photographic documentation. They confirmed the severity of pollution through professional water-quality testing and reported this crisis to local media and water affairs departments. The resulting social pressure from media exposure prompted the relevant departments to swiftly identify the pollution source and penalize the responsible construction site.

The successful resolution of this incident proved that community participation could achieve tangible results in stream governance, affirming residents' influence. Following this event, government departments began to dispatch personnel to liaise with community organizations, leading to the establishment of regular participation mechanisms.

Phase Four (2017–Present): Black-Odorless Water Body Elimination Campaign and Institutionalized Cooperation Stage

The fourth phase has been characterized by the comprehensive institutionalization of community participation and the deepening of government-community collaboration. Building on the experience gained from previous community participation and the demonstration effect of successful cases, Guangzhou's stream governance entered a new stage of institutionalization. A key milestone in this process was the establishment of the "Guangzhou Open Water Treatment" WeChat platform in 2016. This initiative created a convenient mechanism for reporting problems. Since its launch, the platform has established a "rewarded complaint" system (a 15 CNY reward for each effective complaint) to incentivize residents to engage in stream governance and has handled 495 citizen complaints. This platform not only provided a channel for participation but also established normalized communication between the government and communities.

The implementation of the RCS in April 2017 further expanded the space for community participation. It not only established a responsibility system for official river chiefs but also provided an institutional foundation for the participation of "Non-Governmental River Chiefs (NGRC)". However, the implementation of this system had significant flaws. A significant number of the phone numbers listed on the river chief information boards were unavailable, and official river chiefs often lacked professional skills; some were not even aware of the specific locations of the river sections for which they were responsible. In response, social organizations like CSPG played a crucial role in promoting the capacity improvement of government departments by reporting problems and submitting suggestions.

In 2018, the Ministry of Housing and Urban-Rural Development launched the "Black-Odorless Water Body Elimination Campaign", which further fostered a close collaborative relationship between functional departments and NGRCs. Government departments began to inform community organizations of the results of their supervision on illegal pollution discharge, and the supervision findings of community organizations were promptly shared with the relevant departments. In 2019, with the assistance of Southern Metropolis Daily journalists, the government held a commendation conference for NGRCs, releasing a list of 13 outstanding individuals. This provided official endorsement for the identity of "NGRCs", institutionally recognizing the legitimate status of community participation in stream governance.

After years of optimizing community participation mechanisms and innovating in practice, Guangzhou's stream governance has achieved significant

progress. By March 2021, all 147 previously black-odorous water bodies and 50 key remediation streams in Guangzhou were declared to be no longer black and odorous.

Positioning Changes and Participation Patterns of Typical Actors in the Governance Process

The environmental governance of Sima Stream evolved through four phases, characterized by the increasing participation of civil society organizations and local residents and the growing collaboration between governmental and societal actors. Specifically, the period from Phase two to Phase three saw a significant shift as actors moved from a passive to an active state, reflecting an iterative process of social mobilization. The enhancement of participation and interactions between actors was most pronounced between Phases three and four, indicating a deeper collaborative interaction among the multiple actors.

To analyze the evolving roles of various actors, this study further classified four representative stakeholders and explained their roles and functions in environmental governance. These four actors are: Community Residents, GEP (representing NGOs), CSPG (representing resident-led organizations), and the Caihong Sub-district Office.

Community Residents

The role of community residents has evolved significantly throughout the governance process. Before 2007, residents had been suffering from river pollution while the government excluded public participation in addressing water issues. While they had an urgent need for environmental improvement, residents' primary ways of expressing their demands were through the media. During the second phase, in response to the government's water treatment initiatives, residents began to form informal organizations after receiving training, positioning themselves as potential participants in governance. Following 2017, the channels for resident participation continued to expand. Some of the more active residents were empowered by the authority to supervise and manage the streams, publicize governance achievements, and mobilize other community members to participate in stream patrols.

Guangzhou New Life Environment Protection Promotion Association (GEP)

GEP's role has gradually shifted from an independent NGO to a partner backed by government empowerment. When it was originally founded by environmental volunteers, GEP had not yet deeply intervened in the government-led environmental governance work. Supported by the Institute for Sustainable Communities (ISC), an international non-profit focused on climate issues, GEP had some engagement with the Guangzhou Municipal Government, but was already recruiting professional volunteers and focusing on water-related issues. In the third phase, GEP's

operational funding was increasingly coming from the Guangzhou government. In terms of authority and responsibility, GEP began to collaborate with government departments and assume multiple public environmental governance functions, including public education and volunteer training.

Currently, GEP has evolved into an actor embedded within the environmental governance framework led by the Guangzhou Municipal Government. It plays a crucial role in facilitating the flow of governance information and promoting public awareness of environmental policies.

Community Stream Patrol Group (CSPG)

The role of the CSPG has evolved from an active grassroots organization to a formalized representative of civilian collaborative governance. The formation of the CSPG marked the birth of a grassroots governance unit, but at the time, the government had not yet formally recognized its authority and responsibility through institutional design. Consequently, the CSPG functioned primarily as the organizer of spontaneous stream patrols, publicizing their patrol results through social media. In the fourth phase, the CSPG was officially recognized by the government at a commendation conference.

Its specific actions include regular stream patrols, water quality monitoring (including dissolved oxygen, pH value, and ammonia nitrogen), identifying pollution sources, and providing feedback via social media. The group also engages community residents through educational activities to raise awareness of environmental issues.

River Chief Office

The establishment of the River Chief Office represents an attempt at refining environmental governance through a more systematic administrative approach. Before 2017, Guangzhou lacked a specialized institution to coordinate all aspects of water management, which resulted in insufficient collaboration among the various government departments.

In 2017, Guangzhou established the RCS, assigning river chiefs full responsibility for environmental management. This marked the beginning of a more systematic and accountable approach to water management. The River Chief Office is responsible for coordinating various resources, allocating authority and responsibility, and supervising assessments. It is also directly responsible for providing feedback on public governance information, serving as a vital component of collaborative governance. Specific actions include coordinating multiple government agencies, such as the Housing and Urban-Rural Development Commission, the Environmental Protection Bureau, and the Urban Management Commission, to clarify their respective duties in stream governance and ensure direct accountability for outcomes. The River Chief Office has also provided official endorsement for civilian participation through formal recognition and implicit resource support. Additionally, it has established communication channels with NGO to

gather opinions and suggestions. To improve governance effectiveness, it has also developed performance assessment and accountability mechanisms to motivate officials' efforts.

Public Participation Performance Evaluation—Two Perspectives: Governance Performance and Social Impact

The Improvement of Governance Performance

First, environmental governance has enhanced community cohesion. The process has given rise to a series of active grassroots residents' organizations. These organizations have established initial social connections within the community, facilitating the development of social capital, trust, collaboration, and consensus. For example, residents have joined the NGRC weekly stream patrols, and communities have participated in knowledge training programs organized by GEP. Through these activities, diverse community connections have been established, and a community consensus on environmental governance has been formed. According to our survey data, 73% of community residents believe that public environmental governance has enhanced their sense of community belonging.

In terms of cost, social participation has significantly reduced the expenses of environmental governance while improving efficiency through a network of social participation. Previously, governmental decision-making suffered from a lack of information transparency and was prone to departmental responsibility shirking. With the connection between the sub-district office and communities, immediate feedback platforms like WeChat groups and reports from the NGRC have shortened the time required for problem discovery and resolution. A representative from the NGRC described the transformation as follows:

We established an official WeChat group. Then this group continued to grow, with sub-district office directors, neighborhood committees, residents, and non-governmental river chiefs all involved. Previously, we didn't know who to look for. (Now) We can quickly find the cause, because there's no way to shirk responsibility.

As for effectiveness, through digital platforms like the "Clear Water Co-creation" mini-program on WeChat App, the public can directly interact with municipal stream management centers, while the River Chief Offices can directly monitor and evaluate the stream governance situation. This chain of demand expression, information processing, and action adjustment has enabled governments to optimize their strategies. Correspondingly, the government's placemaking actions have become more closely aligned with the needs of residents. Responsive to resident feedback, the government has implemented long-term renovation efforts focusing on three key areas: Improvements to the thermal environment along the streams, the creation of public green spaces, and enhanced walkability. These targeted measures have, in turn, significantly boosted the effectiveness of

stream governance. The leader of GEP confirmed the value of their work and the organization:

We discover one problem and address one, step by step, implementing the River Chief System. When problems arise, we collect them and submit them to the Water Affairs Bureau, which also addresses (stream black-odorous points) with us step by step. They also think this process is very effective, really able to get down to those (black-odorous) points, and can also promote official river chiefs. So they think we're very useful.

Social Mobilization Effectiveness

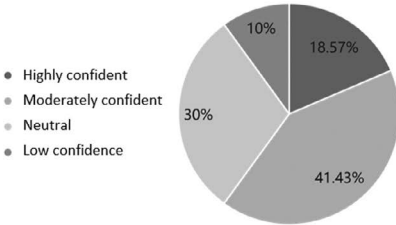
On the positive side, public participation in stream environmental governance has achieved widespread recognition and established a community consensus. Survey data provide clear evidence of this effect, as 82% of residents believe stream governance will bring benefits, and 73% believe that public participation can play an important role in environmental governance. This indicates that stream governance has become a shared consensus, which has the potential to attract more participants. Furthermore, 60% of residents hold positive attitudes toward the work of NGRC, further confirming that these governance practices have gained community recognition. However, public participation in stream environmental governance is currently constrained by three core challenges.

First, residents' involvement in governance remains insufficient. Survey results showed only 22% of respondents had ever participated in stream governance, indicating that most residents had yet to be integrated into governance participation systems. Similarly, 73% of residents indicated that they had never reported governance-related opinions to the government, reflecting the insufficient channels available for residents to communicate their views to the authorities. Most respondents shared a similar view, noting that they believed they lacked professional knowledge and training. Thus, they considered environmental governance irrelevant to themselves, as they could not provide professional advice. Therefore, they relinquished their participation in public governance. One resident from Caihong Community described his opinion:

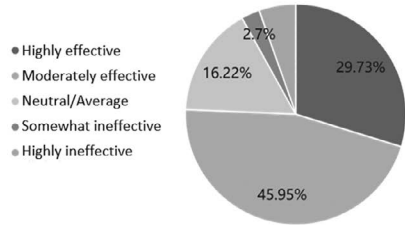
I think current water governance is quite good. Professional matters should be handled by professionals. I can't provide any constructive opinions ... No one asks for our opinions either. Gradually, I feel this matter has nothing to do with me, and finally, I don't get involved.

Second, residents' roles in stream governance are peripherally positioned, particularly in decision-making processes such as plan formulation, finalization, and implementation. Although 62% of respondents believed that the government had fully considered residents' opinions in stream governance, when respondents were asked about their actual participation in decision-making, most acknowledged that

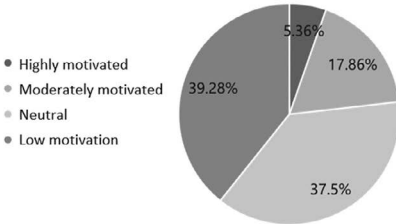
To what extent is your willingness to engage in creek environmental governance?



What is your level of confidence in the ability of community residents to contribute to environmental governance?



How would you describe the performance of the civilian river chief initiative?



Which of the description best fit the primary benefit of the environmental remediation of Sima Stream?

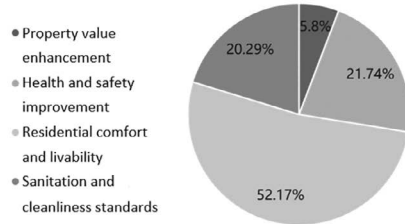


Figure 9.3 Questionnaire results.

their involvement falls far short of meaningful engagement. This disparity reveals that the government has not yet built effective channels for residents to participate in core procedures of governance. Consequently, residents are predominantly relegated to passive roles as feedback providers and outcome observers rather than active stakeholders in decision-making.

Moreover, public participation also faces challenges in engaging all age groups, particularly among the elderly. The rapid advancement of digital governance platforms has, in some cases, intensified the disconnection between aging populations and public governance, due to issues of insufficient publicity and the digital divide (Figure 9.3).

Conclusion

Along with the national strategy of “Ecological Civilization” in China, environmental governance is gradually transitioning from government-led to more collaborative and participative forms of governance. The case of Sima Stream in Guangzhou clearly illustrates this transformation. This chapter uses it as a case study to examine the evolution of environmental governance and the features of community participation in the Chinese context.

The study finds that the involvement of societal actors in collaborative governance presents an evolutionary pattern, shifting from the formation of community willingness to bottom-up community cooperation, then to empowered community participation, and finally to institutionalized social collaboration. We also find that

Guangzhou's sub-district-level organizations play a key role in such a transformation, as they represent official bodies and collaborate with grassroots participants. For instance, the establishment of the NGRC by volunteers in collaboration with the Sima Stream Sub-district Office demonstrates their collaboration. As these participatory practices demonstrated positive results, they gradually gained institutional empowerment and official endorsement, transforming into an institutionalized collaborative governance model.

In terms of impact, this collaborative approach has had a significant impact on both social cognition and public governance efficiency. First, it has improved residents' understanding of environmental issues, fostering a community consensus and a shared knowledge base in environmental governance. This aligns with social learning theory, which posits that cognitive changes in a community of practice are based on individual learning but ultimately transcend the individual (Reed et al., 2010). We also observe similar evolutionary processes. Environmental knowledge initially introduced by external actors like GEP was diffused among active participants, such as the NGRC, and then spread throughout the community via science popularization activities. This created a foundational knowledge system for collaborative governance and a shared belief that "stream protection is a shared responsibility".

Second, community participation has enhanced the efficiency and effectiveness of governance. The collaborative model has helped to overcome the inefficiencies and responsibility-shirking that often characterize purely top-down systems through multi-channel feedback mechanisms. It has played a crucial role in promoting transparency and refinement in governance, resulting in significant cost savings for the government in management and monitoring.

However, despite the increasing community participation, its actual influence remains limited (Liu et al., 2019). The Guangzhou municipal government has maintained a conservative stance on resident participation in core governance decisions, and access channels remain narrow. Although the 2018 Guangzhou Greenway planning documents explicitly listed "co-creation" as a guiding principle, they provided no specific guidance on the forms this participation should take. The research reveals significant deficiencies in community participation across two core dimensions: Scope and depth. These limitations directly constrain the breadth and effectiveness of public engagement, indicating that the resident participation system requires substantial improvement.

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10 From Government-led Participation to Shared Governance

A Situational Collaborative Mechanism for Urban Flood Risk Management in Shenzhen

Zeqiang Pan

The Rise of the “Communicative Turn” on Flood Risk Management at the Local Level

Urban flood risk management at the community level is increasingly interrelated with local context and local actors. Local authorities, residents, and other civil society actors have negotiated diverse interests that extend beyond managing flood risk, including creating more leisure areas. They pool resources, such as local knowledge, funding, and social or political capital, to support each other in developing community-tailored flood strategies. However, the flood literature has thus far paid little attention to the mechanisms required to collaborate with these actors, especially between local authorities and citizen collectives at the community level (Ishiwatari, 2019). This chapter aims to address this knowledge gap. The chapter first explores the “communicative turn” of urban flood risk management in Western countries and China. A shared governance framework between local authorities and citizen collectives is then developed by focusing on the following three key institutional dimensions: (1) the interdependencies between formal and informal institutions, (2) the role of boundary spanners, and (3) the development of tailor-made solutions. Empirical research was carried out to explore the collaboration process between local authorities and local collectives in Shenzhen’s two community-level projects of the Sponge City Program, a national initiative for managing urban flooding in China. The chapter concludes by reflecting on how collaborative planning can be adapted to the Chinese context, emphasizing the need to contextualize collaborative mechanisms for managing urban flooding at the community level.

Flood risk management is experiencing a “communicative turn”, particularly in the Western world, where many countries are moving toward more integrated and locally grounded approaches (Mees et al., 2016). In the United States, schemes such as the National Flood Insurance Program’s Risk Rating 2.0 transfer part of the flood responsibility for flood risk to individuals (Heinrich & Penning-Rowse, 2022). In the European Union, the EU Directive 2007/60/EC encourages the engagement of interested parties (e.g., different levels of authorities, NGOs, and private sector stakeholders) in the assessment and management of flood risk. Similar

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initiatives have taken place in many national programs, such as the UK's Making Space for Water and the Room for the River program in the Netherlands, which illustrate a shift toward combining spatial planning with water management. Across these flood policies or strategies, non-structural measures, such as green roofs and garden reservoirs, are becoming increasingly adopted, linking flood risk management with broader urban quality goals (Restemeyer et al., 2024). These solutions require integrated, area-specific strategies that depend not only on different levels of government but also on local communities (Mees et al., 2019). These actors align diverse interests and combine resources, knowledge, funding, and political support to jointly manage flood risk. Therefore, understanding the collaborative mechanisms that enable local authorities and local collectives to work together becomes central to making local context-specific flood strategies (Pan et al., 2024).

China has also started to move toward a more integrated and communicative approach to managing urban flooding. During the 20th century, national flood policy in China favored hard engineering solutions, such as the Three Gorges Dam on the Yangtze River, to manage river and mountain flooding. While these are technical, government-led prevention mindsets, they have continued to influence urban flooding policymaking. Government agencies primarily used technical guidelines with mandatory responsibilities distributed to local authorities, such as in the Outline of Urban Flood Control Planning in 1997 issued by the Ministry of Water Resources (MOWR) (Zheng & Huang, 2023).

In recent years, however, these standardized technical measures have failed to adapt to complex local conditions and multiple local actors' interests and have therefore become less effective in combating urban flooding under increasingly rapid urbanization. According to MOWR (2021), about one-fifth of China's cities experienced urban flooding each year between 2015 and 2018. In 2021 and 2023, record-breaking torrential rain caused urban flooding that led to 292 and 33 deaths in Zhengzhou and Beijing, respectively. This shows that urban flooding has become the primary flood risk in Chinese delta cities (Meng et al., 2022).

To cope with the new reality, flood policy has shifted toward more integrated and context-specific strategies (Nguyen et al., 2019). Since 2014, the national Sponge City Program has promoted creating more buffer spaces within urban areas, such as rain gardens, wetlands, and permeable pavements, to absorb and retain urban rainwater to alleviate pluvial flooding. The State Council has set ambitious national targets for the program: "... 20% of urban areas were to meet sponge standards by 2020, rising to 80% by 2030" (State Council, 2015, p. 1). In 2022, the Ministry of Housing and Urban-Rural Development's (MoHURD) Announcement for Further Promoting Sponge City Construction called for the further integration of the Sponge City concept into other planning agendas, including the renewal of old (aging) residential neighborhoods (MoHURD, 2022).

These efforts aim to achieve interdependencies across policy sectors and to engage local communities. However, implementation still faces challenges (Jiang et al., 2018). For example, while bottom-up initiatives increasingly seek collaboration with authorities, the absence of clear, localized guidelines often discourages the government from adopting a collaborative approach (Ma et al., 2024). Tensions

may arise between the general flood risk reduction goals emphasized by policymakers, such as those promoted in the Sponge City Program, and the more specific concerns of residents, such as the qualitative boost of their built environment (Pan et al., 2024). This highlights the need to address what mechanisms are required to collaborate with these multiple actors to develop area-specific flood strategies. The following section explores the institutional factors that influence such collaborative mechanisms, focusing on old residential neighborhoods. In these areas, flood risk management is not only about preventing urban flooding but also intersects with a range of other built-environment issues and local stakeholders' interests.

A Shared Governance Approach for Managing Urban Flood Risk

The term “collaborative planning” in this chapter refers to a planning process at a small and micro (local, community) scale and in area-specific situations related to the flood issue, in which actors (local authorities, NGOs, citizens, etc.) work together. When focusing specifically on the collaboration between local authorities and local communities, this collaborative planning paradigm can be framed as “shared governance” (De Roo, 2003; Pan et al., 2024). Shared governance typically involves a collaboration in which local collectives (citizen groups) in communities assume certain responsibilities under conditions set by the authorities, who, in turn, support and facilitate the collectives' efforts (De Roo & Perrone, 2020). Such governance frameworks bring together stakeholders with diverse interests and perspectives, requiring a collaborative process to facilitate dialogue, mutual understanding, and joint actions toward common goals. In this sense, shared governance can be seen as an area-specific institutional framework that shapes collaborative planning between local authorities and communities. This is particularly relevant in old residential neighborhoods where Sponge City infrastructure often competes with other spatial demands, such as creating more parking or recreational spaces (Yin et al., 2021). To develop locally supported flood strategies, authorities must engage with residents, negotiate trade-offs, and integrate broader community interests into flood plans, including improvements to the quality of the living environment (Pan et al., 2024).

However, collaborative planning or shared governance does not occur in a vacuum but is tied to contexts (De Roo, 2003; Forester, 2016; Lin, 2025). In many Western countries, it is common for local collectives to actively participate in public interventions, contributing to both decision-making and implementation (Friedmann, 1992). This raises the question of whether genuine collaborative planning or shared governance can exist in non-Western contexts, especially in top-down political systems such as China. Hu et al. (2013) and Lin (2025) describe public participation in China as “government-led participation” or “mandated collaboration”, while Zhang et al. (2020) show that collective action is often triggered or constrained by a government-imposed condition. In urban flood risk management, research has shown that policymakers around the world commonly prefer strong government involvement in flood affairs (e.g., Plummer et al., 2018). Even though non-governmental actors show substantial interest in collaborating with local

authorities on flood prevention, technical flood control measures generally remain under a strong governmental role and the responsibility of local authorities (Mees et al., 2019; Pan et al., 2024).

On the basis of this theoretical discussion and empirical evidence, this chapter assumes that managing urban flood risk at the community level is a dynamic process, which might differ significantly between directive, government-led contexts and more collaborative, shared forms of governance (De Roo, 2021). This chapter examines different institutional contexts of collaborative planning by exploring how flood responsibilities can be divided in Shenzhen. Inspired by Dieperink et al. (2018), this chapter argues that collaborative planning can still be achieved if certain collaborative mechanisms are in place, as presented in the following three aspects: Interdependencies between the formal and informal institutions, boundary spanners and tailor-made solutions.

Interdependencies between the Formal and Informal Institutions

Government-led decision-making on urban flood risk management is situated within formal institutions, which include legal frameworks, policies, and regulations set by public institutions. In contrast, community involvement often occurs outside the governmental domain, constituting the informal institution (De Roo & Perrone, 2020). Bottom-up actions and initiatives in community involvement are driven by shared or personal norms, values, customs, and informal agreements rather than official procedures (North, 2005). Although formal and informal institutions operate under different logics, collaborative processes often require both sides to adapt their procedures or expectations, thereby creating a dynamic process that bridges the formal and informal worlds (Pahl-Wostl et al., 2013; Pan et al., 2024). For example, while the Sponge City Program is typically implemented through top-down procedures, at the local level, authorities increasingly recognize the value of community interests. In response, authorities may shift from a government-expert-led principle toward a shared governance approach with communities, adopting flexible institutional roles that accommodate the interests of local collectives or citizens and provide space and time for social learning (Friedmann, 1987/2020; Mees et al., 2019). Such collaboration can occur through formal co-creation initiated by authorities that involves selected participants (e.g., experts or officials) and is structured around predefined governmental goals. It can also occur through informal co-creation, such as community-led learning workshops or roundtables with open, short-term participation (Puerari et al., 2018). Together, these formal and informal interactions help generate context-specific solutions that blend technical measures with locally embedded knowledge and capacities, thereby incorporating community desires into formal strategies (Mees & Driessen, 2019).

The interdependencies between formal and informal institutions are also important for the long-term maintenance of joint projects. Research shows that residents are more likely to maintain flood projects when they feel meaningfully involved in the collaborative process (Edelenbos et al., 2017). However, the roles and responsibilities of local actors are often poorly defined in joint projects, and local authorities

may lack the capacity to provide sustained support. This leaves residents uncertain about their roles, expected outcomes, or the concrete benefits of participation, creating a disconnection between authorities and local collectives. Conversely, while flood infrastructure requires long-term maintenance, local authorities, constrained by limited budgets and short-term planning cycles, may shift responsibilities to community actors who lack the necessary resources or technical expertise. This can lead to frustration and erode long-term public participation (Uittenbroek et al., 2019). To address these challenges, local authorities must clearly define roles and responsibilities, especially given their position to coordinate diverse actors' interests (Trell & van Geet, 2019). This is particularly important in communities that are both highly exposed to pluvial flooding and socio-economically vulnerable, where residents may lack "surplus time" or resources to stay engaged in maintenance (Qian et al., 2024). Authorities should also align their expectations with community capacities and consider targeted support measures, such as offering training or assigning maintenance tasks to residents with adequate resources and knowledge (Uittenbroek et al., 2022).

Boundary Spanners

Proactive boundary spanners can connect actors across the formal and informal worlds with institutional divides. These boundary spanners are often government officials, organizations, or individuals, such as government officers, NGOs, landscapers, or committed residents (e.g., Dieperink et al., 2018; Van Meerkerk & Edelenbos, 2018). Local authorities can play a proactive role by offering visionary, entrepreneurial, and collaborative leadership in recognizing their interdependencies with communities when developing local flood strategies (Van den Brink et al., 2019). External actors, such as NGOs or individuals, may help translate scientific knowledge into local action and link grassroots initiatives with formal support systems (Edelenbos et al., 2017; Mees & Driessen, 2019). However, most existing insights on boundary spanning in flood risk management primarily stem from Western contexts. In China, the role of boundary spanners remains under-explored with the exception of studies by Dabrowski et al. (2021) and Pan et al. (2024). While shared governance is often assumed to help authorities better respond to community needs and design area-specific flood strategies, it remains unclear who acts as the role of boundary spanner between local authorities and local collectives in the Chinese context. This question will be further examined in the empirical analysis.

Tailor-made Solutions

A shared governance approach to urban flood risk management often leads to smart, tailor-made solutions that address multiple goals. Residents, for example, frequently repurpose open spaces for daily activities such as exercise or vegetable gardening (Lu & Zhou, 2024). These everyday practices reflect local knowledge and priorities, which local authorities can adapt to refine the generic guidelines of

the national Sponge City Program and respond to specific community needs (Yin et al., 2021). Smart, tailored solutions thus become possible and necessary, and urban flood risk can be addressed in conjunction with the daily environment, making it not only safer but also qualitatively improved. Although research shows that residents are less focused on “flood risk” in their initiatives and more motivated by improvements to the broader environment, bottom-up initiatives can also lead to smart community strategies, such as creating community gardens that also serve flood management functions (Chan et al., 2021; Mees et al., 2019; Pan et al., 2024).

Collaborative Mechanisms for Urban Flood Risk Management

Managing Urban Flood Risk in Shenzhen

After 40 years of rapid urbanization in China, the regeneration of aging urban residential neighborhoods has become a key priority in spatial planning over the past decade. To improve the living environment in these areas, Shenzhen, a major city in the Pearl River Delta (Figure 10.1a) and particularly vulnerable to rainfall-related flooding, was actively exploring the Sponge City Program after being selected as one of the second group of pilot cities in 2016. In 2019, the Shenzhen municipality launched the Communal Garden project, with the aim of building 100 community gardens across the city. Although these two initiatives seem to target different aspects of flood-related issues, their local implementation shares a common focus: Placing communities at the center of broader goals such as improving living environments and enhancing public spaces, while simultaneously reducing urban flood risk through sponge-like green landscapes, including rain gardens, wetlands, and permeable pavements that absorb and store rainwater. This commonality places the local sphere, with its complex contexts and multiple interests, at the center of the themes explored in this chapter.

However, many policy initiatives have followed a generic, top-down approach that overlooks the specific needs and conditions of individual neighborhoods. Local communities often raise concerns about insufficient public and green spaces under intensive land use. There were also other issues, such as installing elevators, building renovations or upgrading facilities for the elderly, which fell outside a project or program’s intended scope. These concerns suggest that a purely technical and engineering-driven approach is insufficient for implementing the Sponge City Program at the community level in Shenzhen. Instead, the involved local context and interrelated interests in urban regeneration, land use, and community development call for a collaborative planning process. The following two community-level cases demonstrate how diverse actors negotiated their interests, responsibilities, willingness, and capacities to collaboratively develop an area-specific flood management strategy: Haiyue Community and Xi-anqi Community.

The Haiyue Community (Figure 10.1b), located in Nanshan District, provides an example of a collaborative, shared governance approach to urban flood risk management. The community had long suffered from waterlogging during heavy

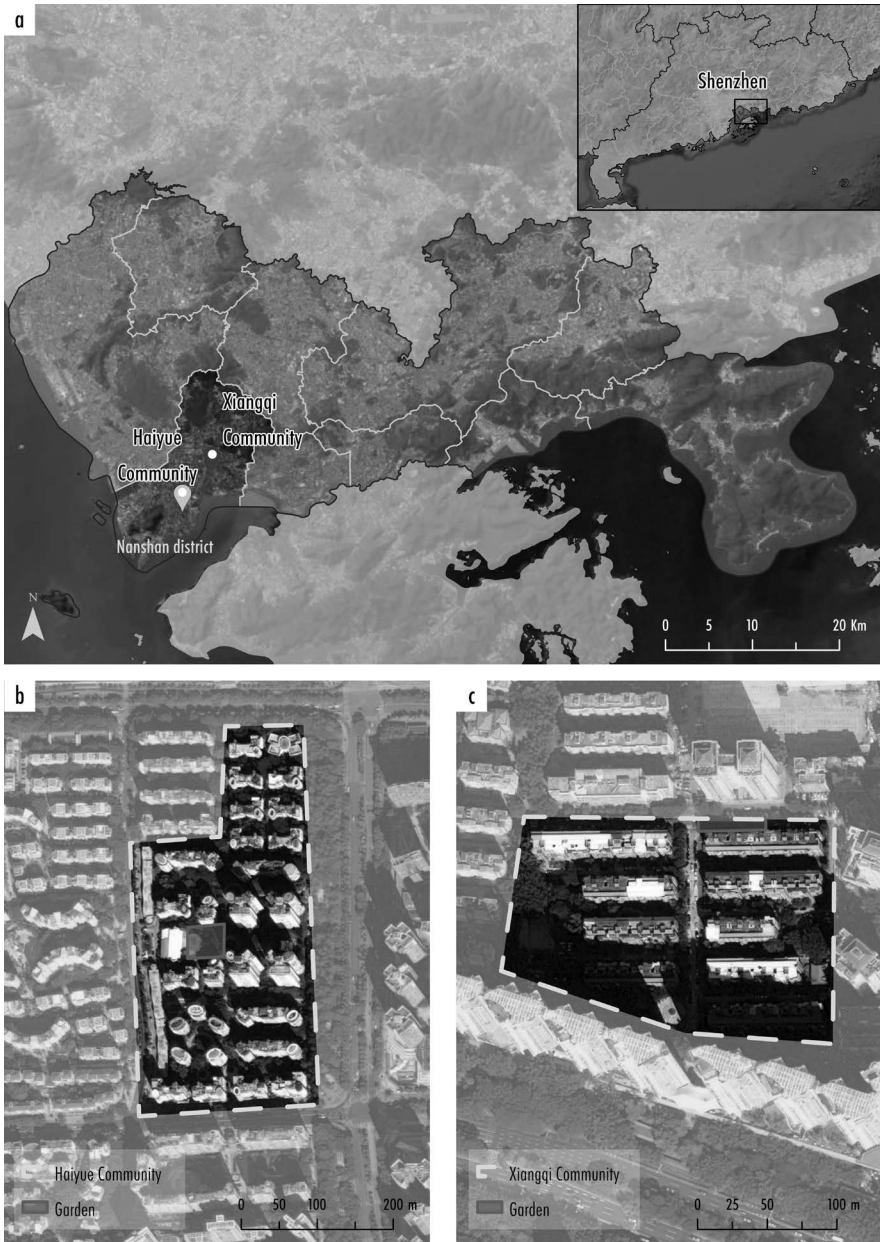


Figure 10.1 Geographical locations of the Haiyue Community (b) and the Xiangqi Community (c) in Shenzhen (a). Map created by Zeqiang Pan.

rains. In 2019, a group of 12 well-educated, mostly middle-class residents, including some elderly individuals, initiated a plan to transform a vacant lot into a communal garden. However, their project faced challenges because of a lack of technical expertise and financial resources. At the same time, the Nanshan District Urban Management Office was seeking opportunities to support small-scale renewal projects under the Communal Garden initiative. Recognizing the potential of the self-organized activity of the Haiyue Community, the authorities decided to step in and offer technical and financial support through a learn-by-doing workshop. With government support, the project successfully incorporated Sponge City measures into the garden design, effectively mitigating urban flood risk while also enhancing the local environment.

The Xiangqi Community (Figure 10.1c), also located in Nanshan District, employed a directive, government-led approach toward flood risk management. Compared to the Haiyue Community, the Xiangqi Community is home to low-middle-income residents. Following the success of the Haiyue Community, the Nanshan District Urban Management Office selected the Xiangqi Community as a pilot site in 2021 for its Communal Garden initiative, aiming to improve environmental quality and mitigate urban flood risk. The collaboration was led by the district government and coordinated by the community committee (Juweihui—a grassroots-level self-governing organization found in urban residential areas that connects local authorities and communities), a property management company (Wuye Guanli Gongsi—a professional service firm responsible for managing and maintaining residential communities), and NGOs, such as The Nature Conservancy (TNC). This directive approach led to the design of an area-specific solution that addressed local flooding issues while also incorporating residents' interests in social interaction and public space.

Table 10.1 summarizes the key characteristics of urban flood risk management in the Haiyue and Xiangqi communities in Shenzhen. While both cases contribute to the Sponge City Program and Communal Garden initiative, they differ in socio-economic context, governance approach, and level of citizen involvement. The Haiyue Community is a middle-income residential area where a bottom-up initiative emerged through active resident engagement and strong support from local government and NGOs. In contrast, the Xiangqi Community, situated in a low-income neighborhood, relied on a top-down approach led by government agencies and external experts. Despite this contrast, both cases illustrate a collaborative planning process, in which authorities were interdependent on the local community and drew on local collectives' local knowledge to develop area-specific flood strategies. However, their different institutional environments (collaborative, shared governance vs. directive, and government-led participation) toward collaborative planning affected the decision-making process and long-term outcomes, especially in terms of maintenance responsibilities. These differences offer insights into how interdependencies between formal and informal institutions, the role of boundary spanners, and the development of tailor-made solutions beyond flooding influence the collaborative mechanism of the Sponge City Program.

Table 10.1 Key information on the Haiyue Community and the Xiangqi Community

Case information	Haiyue Community	Xiangqi Community
Duration of the project	2019–2021	2021–2022
Size of the area	200 m ²	120 m ²
Socio-economic profile	Middle-income residential area	Low-middle-income neighborhood
Project aims	Improve the built environment and enhance flood resilience through a resident-led community garden initiative	Create a green communal space and integrate the <i>Sponge City Program</i> through a government-led community garden initiative
Main challenges	Urban flooding; lack of communal space	Urban flooding; aging built environment
Core actors involved	Initiated by active residents and supported by NGOs and the Nanshan District Bureau of Urban Management	Initiated by the Nanshan District Bureau of Urban Management and the Sponge Office and supported by the community committee, NGOs, and residents
Governance style	Collaborative, shared governance	Directive, government-led participation
Institutional setting	Personal network and informal learn-by-doing workshop that allows social learning and enables flexible cooperation	Government-led roundtable that is often dominated by formal institutions
Outcome and maintenance	A well-managed garden driven by resident engagement and social capital yet facing time constraints for long-term maintenance	A green space characterized by limited resident ownership, strong dependence on governments, and ongoing struggles with continuity due to the limited capacity of local initiatives

Collaborative, Shared Governance in the Haiyue Community

In May 2018, 12 residents of Haiyue Community initiated a self-organized project to transform a flood-prone community vacant lot into a communal garden. Their motivation stemmed from concern about the lack of public spaces for social interaction. The initiative started with a self-funded process, with each participant contributing RMB 100 (USD 14). However, their effort soon encountered challenges due to limited technical expertise, particularly in designing a garden that could effectively address the vacant lot's underlying flood issues.

In 2019, a participant with a background in landscaping used his connections to invite an official from the Nanshan District Urban Management Office to visit the community garden. This effort aimed to secure the government's technical and financial support for their initiative. Around the same time, the district government was also looking for a pilot site for the newly launched *Communal Garden* project. Their mutual interests brought the authority and community together for collaboration.

During the collaboration, while the residents of the Haiyue community primarily focused on creating a green space for planting and social interaction, the Nanshan District Urban Management Office intended to go further to integrate spongy measurements into the garden's design to mitigate urban flooding, as one government official from the district government noted: "... We help residents to view the initiative from a different perspective, taking it not only as a communal public garden but also a buffer space that serves the function of flood risk management". These divergent perspectives led to a negotiation process between the authorities and the community to define the scope and goals of the project. To better understand residents' interests, the government invited TNC to facilitate a learn-by-doing workshop led by the community. Ultimately, a rain garden was agreed upon, which addressed both flooding concerns and the need for green space.

The case of the Haiyue Community illustrates a shared governance approach, where local authorities and community members engaged in a collaborative planning process to align values and reach consensus. The community's interest in building a communal garden for planting motivated the government to expand the project's scope to also address the urban flooding issue. Within this collaborative process, strong interdependencies between formal and informal institutions emerged. While residents contributed local knowledge and self-funding in proposing the community initiative, the Urban Management Bureau and TNC recognized the value of this bottom-up initiative and responded with technical and financial support in designing and improving residents' flood awareness. Their mutual dependence was also operated within an informal institutional environment. Trust was built through personal networks and the learn-by-doing workshop, in which the discourse for interactions was informal, fluid, and dynamic. For example, community-led learn-by-doing workshops prioritized local knowledge over expert input, creating an inclusive setting for open dialogue. Moreover, after seeing possible urban flooding and the potential of the community collective's action, local authorities institutionalized the flood issues and community involvement in their municipal guideline for the Communal Garden project, such as Beautiful Shenzhen Community Building Garden Work Manual ([Shenzhen Municipal Urban Management and Comprehensive Law Enforcement Bureau, 2021](#)). This marked a shift from informal practices to formal policy, positioning flood risk management as a central concern and guiding follow-up projects such as the Xiangqi Community, which is discussed in the next section.

Boundary spanners were also instrumental in shaping collaborative processes. In the Haiyue Community case, both individual and local authorities played a boundary-spanning role. Recognizing the need for government support, one of the participants used his network to link the grassroots initiative with formal government support. Moreover, while acknowledging the need to improve residents' awareness of flood risk management, local authorities assumed the role of policy entrepreneurs by inviting the TNC to strengthen community capacity in flood awareness through learn-by-doing workshops. These boundary spanners shared two key characteristics: Visionary thinking and professional expertise in flood management and community engagement. Their

ability to connect informal initiatives with formal support helped translate scientific knowledge into local practice, thus contributing to a more grounded flood risk strategy.

The collaborative outcome in the Haiyue Community case demonstrated a collective intention beyond flood control: A community garden incorporating sponge city measures. It not only improved flood resilience but also reflected the collective interests of social interactions. This case illustrated the potential of tailored and smart solutions in flood risk management at the community level, which not only addressed flood issues but also brought a qualitative boost to the environment and therefore strengthened social cohesion.

While the communal garden was built and the urban flooding mitigated, sustaining citizen involvement and ongoing maintenance remains challenging due to the absence of long-term institutional support. Residents in the Haiyue Community are willing to maintain the project because they were involved from the very beginning. The community has also established a voluntary system for maintaining the communal garden, where different residents take turns being on duty. Despite these efforts, financial and technical barriers persist, as one resident responsible for maintenance explained: “There is no communication channel for requesting support from the government for our bottom-up initiatives. Even though the government was involved in our project, applying for funding was so complicated that we gave up”. This lack of institutional design for continued government support has limited the community’s capacity and gradually eroded the initial enthusiasm that drove the project.

Directive, Government-led Participation in the Xiangqi Community

The Xiangqi Community, a low-income residential area over 25 years old, suffered from deteriorating infrastructure and frequent rainfall-related flooding, especially on a vacant lot that had long been neglected. Although some residents planned to self-fund a renewal project, the initiative failed due to conflicting interests among residents and a lack of financial and technical support.

In 2021, following the success of Haiyue Community and the release of the Beautiful Shenzhen Community Building Garden Work Manual, the Shenzhen Municipal Bureau of Urban Management assigned 20 Communal Garden projects to Nanshan District. Recognizing an opportunity to secure funding to improve the community-built environment, the Xiangqi Community Committee, comprised several well-educated residents, and the property management company jointly proposed a Communal Garden project. Their application succeeded, securing a subsidy of RMB 100,000 (approximately USD 13,880) from the district government. Compared with the shared governance approach in the Haiyue Community, the collaboration in the Xiangqi Community was more directive and performance-driven, as one district official noted:

Transforming a community with messy and neglected areas into a clean and orderly one creates a clear before-and-after contrast, which counts as

political performance. From this perspective, the Xiangqi Community is a very suitable case for the Communal Garden project.

During the design and implementation of the project, the resident participants teamed up as a collective group to facilitate coordination and gather input from other individual residents on the garden's function and design. However, their decision-making mainly followed a largely top-down approach. For example, privacy concerns for the communal garden raised by ground-floor residents were dismissed by the district government and the collective group, who applied the principle of "more people obey less", prioritizing majority opinion over tailored solutions.

Following the Beautiful Shenzhen Community Building Garden Work Manual, local authorities engaged NGOs such as TNC and the Green Foundation to integrate Sponge City measures and provide technical guidance. The nearby InterContinental Hotels Group also contributed financial support. Through joint efforts with governments, residents, and social capitalists, Sponge City measures were proposed, such as using sandy soil and planting cacti, which help alleviate flooding. The vacant lot was ultimately transformed into a rain garden. A "plant-learning-classroom" concept was also integrated, combining Sponge City education with opportunities for play and social interaction, as one resident described: "... many children remember which plants they planted with their own hands. Later, they often come back to see how it has grown taller and started to bloom. This is a very vivid learning process for biodiversity knowledge".

In the Xiangqi Community case, interdependencies between authorities and collectives did emerge but remained largely symbolic. Unlike the Haiyue Community case, where participation was grounded in an open, informal, and shared process, the Xiangqi Community followed a more government-led participation process. The community applied for subsidies through a top-down process mandated by municipal and district governments and coordinated by the community committee. Public participation was also predefined by the Beautiful Shenzhen Community Building Garden Work Manual, as the head of the collective group recalled: "... the government's policy at the time was to encourage public participation. From the beginning, they told us that residents had to be involved". During the design phase, the principle of "more people obey less" was used to resolve conflicts among residents, which made the collaborative process in the Xiangqi Community fully conform to the government's vision. What particularly stood out was the involvement of InterContinental Hotels Group in solving the financial barriers; however, this social capital support was temporary and situational. Therefore, the Xiangqi Community illustrates an alternative approach to collaborative planning, described as government-led participation, in which formal institutions dominate, and their interdependencies with the community are structured but limited.

In the Xiangqi Community case, Community Committees, local authorities, and NGOs played a proactive boundary spanner role to connect diverse actors throughout the project. The Community Committee coordinated between different levels of

government and residents, particularly during the subsidy application, ensuring the project secured upper-level funding. NGOs were invited by authorities to provide technical expertise on sponge infrastructure and to lead participatory activities. This was a deliberate strategy by local authorities, as one member from the Green Foundation explained: “The district government had long realized that completing communal gardens within a year was an overly ambitious political task. So, they invited us to help mobilize residents, as we were better equipped to engage and collaborate with the community”. The NGOs acted as policy entrepreneurs, bridging institutional gaps and translating technical concepts into accessible ideas. Unlike the Haiyue Community, which followed a learn-by-doing approach, boundary spanners in the Xiangqi Community focused on translation and reframing rather than building capacity through direct engagement. For example, they introduced relatable concepts such as a “plant-learning-classroom” to better integrate Sponge City principles in the design and in residents’ everyday life, as one interviewee from TNC noted: “If the idea of Sponge City Program is not packaged differently, residents won’t relate to it. It needs to be reframed in terms of everyday life”.

The collaborative outcome of the Xiangqi Community also extended beyond flood control. The final design of the garden responded to local conditions and served multiple purposes: A biodiversity learning space for children, a rain garden, a wetland, and a social area. It helped strengthen environmental awareness and encouraged interaction among residents. However, some residents’ concerns were overlooked. As my on-site observations and interviews revealed, facilities for elderly physical activity were absent, despite strong demand from the community’s large elderly population.

Long-term institutional support in the Xiangqi Community also remained weak. Unlike the Haiyue Community, which has already established a voluntary system with residents rotating duties for maintaining the communal garden, many residents in Xiangqi disengaged after the garden’s completion and delegated maintenance to the property management company. The active resident with a landscaping background from the Haiyue Community expressed concern on the Xiangqi Community: “... maintenance by the property management company is meaningless because long-term upkeep requires involving residents. When the company becomes overburdened and unwilling to continue, the garden will inevitably be neglected and abandoned”. My field observations also revealed the limitations of such a government-led participation approach: Once the Communal Garden project became a government performance metric, the process became even more centralized and task-driven. In other parts of Shenzhen, such as the Futian District, the government bypassed community involvement by hiring external contractors to deliver garden tasks assigned by the municipal government for the Communal Garden project. To avoid resident pushback, these contractors often preferred to develop gardens in public green spaces rather than residential neighborhoods, which ironically undermined the participatory goals of the policy and the urban flood risk within communities. Many of these gardens were later abandoned due to weak maintenance and a lack of community ownership.

Toward Shared Governance as an Area-Specific Institutional Framework of Collaborative Planning

This chapter explored the collaborative mechanisms for urban flood risk management in Shenzhen's Sponge City Program and Communal Garden project. Grounded in China's top-down institutional context, the cases of Haiyue Community and Xiangqi Community illustrate how collaborative planning can evolve in practice into area-specific institutional frameworks, either shared governance or government-led participation, through interactions between local authorities and citizen collectives.

The Haiyue Community represents a shared governance approach where interdependencies between local authorities and the local community were actively cultivated through a relatively open, interactive institutional environment. Although local authorities retained a central coordinating role, the project was initiated by residents and supported by NGOs, allowing for mutual recognition of shared challenges, such as flooding and the need for accessible social spaces. The learn-by-doing workshops enabled both local authorities and local collectives to align their interests and shared responsibility for both planning and implementation, creating room for social learning of flood awareness and joint capacity-building of their complementary resources. This active community learning affirms long-standing insights from planning scholars such as [Friedmann \(1987/2020, 1992\)](#), who argued that social learning is both a pre-condition and an outcome of communicative and collaborative planning. The Haiyue Community case extends this discussion to the context of China by showing that even within a hierarchical governance system, interdependence can be productively mobilized when authorities are open to bottom-up contributions within a shared governance context and institutional flexibility exists for social learning within the community.

By contrast, the Xiangqi Community illustrates how collaborative planning can readily shift into government-led participation when institutional conditions become closed, rigid, and directive. Despite involving multiple actors, including local authorities, community committees, and social capitalists, the process was largely technocratic and pre-determined by governmental directives. Community participation was limited to consultation with residents and had little influence over design or implementation. Interdependency was limited, with collaboration primarily serving a political task rather than achieving mutual interests for community development or promoting social learning of flood risk management. This reflects a broader challenge in China's collaborative planning landscape, where the rhetoric of collaboration often masks hierarchical decision-making processes (see also [Hu et al., 2013](#); [Lin, 2025](#); [Zhang et al., 2020](#)). In communities such as Xiangqi, characterized by aging infrastructure and limited social capital, such a rigid, government-led participation approach undermines the possibility of co-producing tailored solutions to urban flooding and environmental degradation.

Although the two cases differ, where Haiyue is better embedded in a shared-governance approach, and Xiangqi reflects a more directive, government-led approach, comparing them demonstrates that collaborative mechanisms in urban flood

risk management at the community level depend on several common institutional arrangements. These include interdependencies between formal and informal institutions, the presence of proactive boundary spanners, and the development of smart, multifunctional solutions that extend beyond flood mitigation. Specifically, although the value of collective initiatives remains constrained by policymaking in the Chinese institutional context, local authorities can nonetheless take advantage of capacities from these collectives through a shared governance approach, such as making use of residents' local knowledge to better understand the community interests. This is especially important where community development is intertwined with the built environment and flood-related issues (see also [Pan et al., 2024](#)).

Proactive boundary spanners, such as the Community Committee and committed residents, can bridge the gap between authorities and the local community by addressing local tensions and fostering more responsive and contextually grounded solutions. Consistent with flood risk management experiences from the Western world (e.g., [Van den Brink et al., 2019](#); [Van Meerkkerk & Edelenbos, 2018](#)), boundary spanners play an increasingly important role in connecting formal and informal institutions. These actors are often defined as partners of government agencies. I extend this debate to the context in China, considering both its institutional and place-based context grounded in local communities. Community Committees, which are well-established within China's institutional structure and closely tied to local identity with residents and collectives, can act as proactive place-based boundary spanners that facilitate the connection between the government and the local community. Tailor-made and smart solutions then become feasible, addressing pluvial flood risk in conjunction with the daily environment, making it not only safer but also enhancing its quality. However, this sharing of responsibility with the community is not a given. Even in the Haiyue Community with a shared-governance context, long-term support is desired as communities often lack technical expertise and rely largely on top-down directive support and are currently still often left to act independently.

While the aforementioned collaborative mechanisms seem to be universally applicable, the cases of Haiyue and Xiangqi communities suggest the need for contextual, area-specific, and community-tailored institutional designs (also see [De Roo, 2003](#); [Lin, 2025](#)). The first contextual consideration is that interaction for urban flood risk management at the community level is a dynamic and evolving institutional process. Drawing on [De Roo \(2021\)](#), the two cases in this chapter illustrate a shift in the institutional context, ranging from the national Sponge City Program to the municipal, district, and community-level Communal Garden initiatives, from plural to common values and from explicit to implicit consensus. The Haiyue Community exemplifies very uncertain circumstances, partly because of locally increasing contextual interference and partly due to the rise of multiple actors with differing interests in community development and flooding. As the situation becomes more uncertain, such as the discovery of urban flooding issues, the Communal Garden project represents more than the construction of a garden; local authorities and the local community had to communicate with each other more often to better understand the local context, surrounded by the need for social place

and underestimated flood issues. Under such complexity, the traditional technical perspective is no longer sufficient, with a communicative perspective and collaborative planning becoming desirable. Intersubjective communication among actors becomes essential, where a shared exploration by learn-by-doing workshops is meant to enable a process of social learning, resulting in consensus and an “agreed reality” in collaborative planning.

The second contextual consideration is that scaling up “collaborative planning” projects is inherently context-specific and process-oriented, making it particularly challenging. While such “collaborative planning” projects begin at a micro scale, as seen in the Haiyue Community, their replication, as attempted in the Xiangqi Community and other projects in Shenzhen’s Futian District, has proven problematic. The Communal Garden project in Haiyue Community emerged from a participatory, shared governance approach, with enough space for social learning. However, when this model was scaled up to the Xiangqi Community, under the directive of the Beautiful Shenzhen Community Building Garden Work Manual, it became increasingly standardized and burdened by bureaucratic expectations. While such a procedural and routinized scaling up may be desirable from the standpoint of conventional effectiveness criteria in project management, it poses considerable dangers. Friedmann (1992) cautions that such externally promoted replications, often driven by multiple government ministries, risk losing their innovative capacity to bureaucratic conformity: “... the impetus, the consciousness raising, the leadership, the muscle and the ‘heavy weight’ that developed the first project dissipates in succeeding ones that seek to duplicate it” (p. 141). This dilemma of scaling up the micro-level collaborative planning project was also clearly visible in the Xiangqi Community and other scaled-up projects in the Futian District. Bureaucratic structures assumed control, power became more centralized, and NGO involvement became increasingly professionalized, directly transforming social learning participatory practices such as learn-by-doing workshops into more passive, classroom-style learning sessions. These shifts marginalized resident voices and reduced opportunities for community-led innovation. Moreover, the ideological and social momentum that fueled the initial success of Haiyue Community’s bottom-up collaboration proved difficult to sustain, particularly in the maintenance stage of the project. In contrast to the Haiyue Community, where residents had co-produced and co-maintained the project, the Xiangqi Community lacked the same sense of ownership and long-term community engagement, highlighting the fragility of collaborative planning when scaled without contextual consideration. Therefore, scaling up the collaborative planning mechanism must be rooted in community-centered and context-specific (community), tailor-made approaches.

On the basis of the discussion, this chapter argues that collaborative planning, originally rooted in Western socio-political contexts, cannot be directly transplanted into China without context-specific adaptation. This chapter underscores the importance of contextualizing Chinese collaborative planning practices, particularly at the local level, where government-led participation continues to dominate. The empirical findings suggest that “one-size-fits-all”

technical solutions fall short in addressing the complexity of urban pluvial flooding at the local level, which is deeply intertwined with local actors and their multiple (often conflicting) interests. Instead, a contextual, process-oriented shared governance approach is required, rooted in local interdependencies between authorities and communities. Emphasizing interdependence highlights citizens' ability to take responsibility for local challenges. However, the government should not keep their empty hands in their pockets but should provide technical support and funding for community-led initiatives. In such an area-specific collaborative mechanism and shared governance process, China's flood policymaking and practices can move from "planning for people" to "planning with people" (Pan et al., 2024, p. 620). This reinforces shared governance as an area-specific arrangement of collaborative planning that is locally grounded yet globally relevant, particularly for countries with underdeveloped flood risk management systems.

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Conclusion

Future Research on Collaborative Planning

Yanliu Lin and Hongmei Lu

This book reflects theoretical debates in planning literature on communicative and agonistic approaches to collaborative planning and conceptualizes collaborative planning in China through three lenses: Institutions, power relations, and public spheres. It compiles a collection of case studies on urban regeneration, water management, community gardens, sponge cities, and other domains. These studies reveal the heterogeneous nature of collaborative practices, shaped by diverse institutional and local contexts, as well as various forms of power relations in China. Many are also influenced by digital platforms, especially social media, which provide alternative participatory and communicative channels for citizens, civil society, journalists, and professionals to build networks, express voices, frame planning issues, and challenge traditional power structures. This book, therefore, opens up a new research domain by extending collaborative planning studies into authoritarian contexts and by incorporating the impacts of digital technologies on power relations and public spheres. Future research can focus on the following areas.

Collaborative Planning in Diverse Contexts

The case studies in this book focus on major Chinese cities, such as Guangzhou, Shanghai, Beijing, Chongqing, and Shenzhen, as well as planning domains including urban regeneration, community gardens, cultural heritage preservation, environmental protection, and water management, all at different spatial scales. Future research could expand this scope by examining additional planning domains and practices in other Chinese cities and rural areas, where varied economic, social, institutional, and spatial conditions prevail. Collaborative planning processes and outcomes are shaped not only by broader institutional settings (e.g., national and local policies, political systems, and cultural contexts) but also by specific local socioeconomic and environmental conditions. Further research could also compare how different contexts shape collaborative practices in both authoritarian and democratic countries. Such comparative inquiry can reveal not only similarities and differences in institutional design and participatory mechanisms but also how diverse political systems, socioeconomic conditions, and cultural norms shape power relations. In doing so, it would enrich theoretical debates on the transferability of

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collaborative planning frameworks while generating practical lessons on fostering more accountable and context-sensitive forms of collaboration across governance settings.

A Pragmatic Approach to Collaborative Planning

We call for a more pragmatic approach to collaborative planning, emphasizing problem-oriented and context-sensitive institutional design as well as attention to both planning processes and outcomes. The case studies in this book show that collaborative initiatives in China are rarely guided by normative ideals of deliberative democracy. Instead, they often emerge as instrumental responses to specific governance challenges in urban regeneration, water management, cultural heritage preservation, and other domains. In these cases, institutional innovations are not primarily designed for empowerment and equity, but to mitigate conflicts, enhance legitimacy, and improve governance performance. This pragmatic orientation reshapes how collaborative processes and outcomes should be evaluated. Processes cannot be judged solely by how institutional design (e.g., through formal and informal rules, participant selection, agenda-setting, and deliberation phases) enables or constrains actors, redistributes power, and creates pathways for problem-solving, but also by the degree of inclusiveness or equality of participation. Similarly, outcomes cannot be assessed only by whether consensus is achieved but also by whether collaborative practices contribute to addressing specific governance problems and producing more sustainable results.

Whether mandated collaboration or horizontal collaboration is adopted depends on the nature of the problems and the institutional context. In some cases, hierarchical interventions may help overcome bureaucratic fragmentation and mobilize resources across jurisdictions, while in others, horizontal and civil-society-led initiatives can shape agendas, reframe planning issues, and amplify the voices of marginalized groups. However, without mechanisms to ensure accountability, collaborative practices risk being instrumentalized by dominant actors. Future research should therefore not only refine criteria for evaluating collaborative processes but also develop criteria for evaluating outcomes, including conflict mitigation, problem-solving, governance performance, and social and environmental justice. By linking processes to outcomes, a pragmatic approach advances a more realistic and context-sensitive framework for studying and practicing collaborative planning in China and beyond.

The Impacts of Digital Platforms on Citizen Participation and Power Relations

Digital platforms, particularly social media, have become crucial arenas for informal participation in urban governance in China. Rather than offering a Habermasian ideal public sphere characterized by equal power distribution and rational deliberation, these platforms function as fragmented and contested arenas where societal actors (e.g., citizens, journalists, civil society, and professionals)

continuously negotiate influence. Digital platforms enable societal groups to gain visibility, articulate concerns, frame planning issues, and enhance discursive legitimacy. However, new asymmetrical power structures also emerge. Certain actors, possessing greater resources, digital skills, framing strategies, or institutional affiliations, are better positioned to shape discourse, occupy central roles in online networks, and exert more influential roles. Governments and their agencies can also exert influence on these platforms through algorithmic bias and regulatory rules, thereby shaping the discourse. As a result, social media extends opportunities for informal participation while simultaneously reinforcing existing power hierarchies.

The translation of online participation into policy outcomes often depends on the ability to connect digital mobilization with offline collective action. Online participation alone rarely leads to substantial change unless intermediaries (e.g., journalists, experts, or civil society organizations) bridge different discursive spaces and channel digital debates into institutional processes. These actors play pivotal roles in enhancing discursive legitimacy, amplifying marginalized voices, and sustaining momentum beyond the digital sphere. This underscores the importance of integrating digital platforms more systematically into participatory mechanisms and planning processes, recognizing them as contested arenas of engagement that require careful management by planners and other actors. Moreover, the impacts of social media and other digital technologies have broader implications for collaborative planning beyond China. Future research could therefore examine how digital participation reshapes power relations in diverse institutional contexts, including both authoritarian and democratic settings.

AI's Implications for Planning

In recent years, artificial intelligence (AI) has been increasingly applied in urban planning in China, with technologies such as city brain systems, digital twins, and robots being used in land use planning, transport management, environmental monitoring, and scenario simulation. While these applications create new opportunities for data-driven decision-making in collaborative planning, they also raise critical ethical and justice concerns. AI can reproduce biases embedded in data and reinforce existing power inequalities. This raises pressing questions about how AI interacts with human actors to reshape power relations, what new institutional arrangements are needed to ensure accountability and equity in AI-enabled planning, and how planners can maintain an active and meaningful role rather than being overshadowed by technological systems. Future research should therefore investigate both the opportunities and risks of AI in collaborative planning, exploring how technological innovation can be linked with institutional design and accountability mechanisms to safeguard more inclusive and sustainable urban futures.

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