

The Re-engineering of Community Service Space from the Perspective of Policy Network Theory—A Case Based on Covid-19 Testing Space in Tianjin

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Abstract: How to meet the growing demand for national infrastructure, while renovating and repairing rapidly disintegrating infrastructure, is a key and costly issue for governments at all levels. This case study studies the re-transformation of Covid-19 testing space in the post-epidemic era of H community in Tianjin. The policy network theory tool is used to interpret the different roles played by the government, the market, community organizations, and community residents in the process of space production, and explore the reasons for the dilemma of nucleic acid pavilion retransformation. In this way, it is necessary to improve the efficiency of the utilization of idle resources in the community and promote the improvement of urban public services.

Keywords: space production; Community; policy network theory; Re- engineering

1. Introduction

How to meet the growing demand for the nation's infrastructure while refurbishing and repairing the rapidly disintegrating infrastructure is a critical and costly issue for governments at all levels. In the Covid-19 period, the government bore the high cost of supplying and repairing emergency health services and infrastructure, and the cost of infrastructure development was mobilised mainly in the form of government grants and transfers, and also included indirect costs such as maintenance. In the post-epidemic era, Covid-19 testing space originally set up at the end of streets and lanes have either been left unused or demolished, and a large number of Covid-19 testing space distributed in neighbourhoods and streets have been left unused, which not only occupies public space in the city but also leads to a certain amount of wastage of resources. It brings a new problem of public resource allocation to city managers. The post-disaster treatment of Covid-19 testing space, a typical emergency infrastructure, has become a microcosm and litmus test of the grassroots governance capacity and level of local governments.

Community H is a new resettlement community located in Jinghai District, Tianjin City, located in the urban-rural junction edge of Tianjin City, there are shortcomings in the human environment, the public demand accordingly, etc. Through governance innovation, the community has initially solved the problems left behind in the past, and opened up a new window for grassroots grid services, which is typical of grassroots governance innovation in public service space.^[1]

This case study examines the remodelling of a Covid-19 testing space in the post epidemic era in Community H in Tianjin. The team interviewed the director of the community neighbourhood committee, the general manager of the property, the staff of the street office, the office of the government of Jinghai District, the person in charge of the retransformation of the Covid-19 testing spaces, as well as the general manager and the sales staff of the benchmark enterprise Puyi Rice. Based on the preliminary collation of the interview data, and in accordance with the real problems collected from the research, this paper applies the theoretical tools of the field dynamics to decipher the different roles played by the government, the market, the community organisations and the community residents themselves in the process of space production. The paper uses the theoretical tools of field dynamics to interpret the different roles played by the government, the market, community organisations, and the community residents themselves in the process of spatial production, and to explore the reasons for the emergence of the dilemma of the remodelling of nucleated space.^[2]

We hope to improve the efficiency of the use of idle resources in the community through this, promote the improvement of the level of grassroots public services, and promote the modernisation of grassroots governance capacity.

2. Literature Review

2.1 Public space

The right to public space is a controversial topic, and there are two distinct views on the definition of "publicness" of public space. The first view is that public space plays an important role in the construction of participatory democracy and civil society by providing a platform for communication and negotiation between people with different views, and promoting the development of civic awareness through unmediated interaction between people. Public space is at the same time a space of display, because it is only in this space that political movements can become visible and civic organisations can present themselves to the general public. The second view is that public space should be a clean and orderly space for public entertainment, recreation and consumption (Atkinson, 2003). The important difference between these two views is the definition of the form in which public space exists, with the first view emphasising the constructed significance of citizenship, while the second view places importance on the material form in which public space exists.^[3]

In Eric Dasher's view, public space is a field of mediation between different interests and conflicting social positions, and public opinion will inevitably experience unequal cultural and symbolic forms in the process of formation, which is a deliberative sphere in pursuit of universal significance, and from this point of view, public space has become a carrier of deliberative democracy. Another scholar, on the basis of a systemic analysis of democracy, puts forward his own view that society consists of many autonomous sub-systems that are not driven by people's political will, and that these sub-systems are self-regulating through interactions with each other.

2.2 The production of community public space

The production of space is a key concept in the neo-Marxist school of urbanism. The production of urban space refers to the process by which political and economic elements and forces such as capital, power and class reshape the city so that urban space becomes its medium and product. In this paper, we are interested in the production of public space as a community field based on the notion of 'political community, which refers not only to some kind of reshaped and constructed material entity, but also implies social ties based on a higher level of cohesion (between individuals belonging to different cultural groups and interest groups).

Based on the idea of socio-spatial dialectic, (Lefebvre, 1991), an important founder of the theory of spatial production, goes on to discuss how space is formed. For Lefebvre, concrete spatial forms such as houses, monuments and artefacts are produced by the interaction of competing representations and power relations.

On the other hand, the specific paths of urban spatial production are differentiated as they are influenced by different spatial interests and actors. The space of representation is a differentiated and diverse space, and this differentiation stems from the different understandings and definitions of space developed by urban dwellers based on their daily lives (Lefebvre, 1991). From this perspective, the production of public space is not a purely abstract, symbolic act, but a concrete action.

Urbanisation and the production of space are intertwined, and since the 1990s the general pattern and inner structure of community space in China has changed dramatically. The flow of capital, the game of power at the grassroots level, and the differentiation of citizens' interests have increasingly influenced community space. As a special product in China's urban emergency management, the space of Covid-19 testing locator is a field that is both social, political and economic, reflecting the conflict of resource allocation in the process of community space transformation. In view of this, this paper develops the current analysis and reflection on community governance and the production and allocation of unused Covid-19 testing locator space from the spatial dimension.^[4]

3. Theoretical analysis framework

About the Policy Network, there are also differing views on the definition. One of the more representative is Besson's definition of a policy network: a policy network is "Due to resources,

A group of organizations or groups that are interdependent and linked weaving of the union" (Benson 1982). Peterson & Bomberg (1999) argue that a policy network is "an interest or 'share' in a particular policy sector", and a group that has the ability to drive policy success or cause policy failure subjects". It

can be seen that no matter how different the definition is, it will emphasize the policy network and interests, resources and their relationship to the policy process.

Scholars have classified various types of policy networks, the most representative of which is the classification of Rhodes, which is divided into five types according to the order of network structure from tight to loose: policy community, professional network, intergovernmental network, production network, and policy network. The five types are: policy community, professional network, intergovernmental network, product network and issue network. It is generally recognised that there are two conditions for the application of policy networks: one is a complex policy process and the other is a pluralistic participatory whole. The community is a field of management (control) at the end of state power and a place of life for urban residents. It is the link between state power and civil public power. The Covid-19 testing locator as public resource of the community, its resource allocation process involves multiple subjects such as the government, enterprises, street offices, neighbourhood committees and residents, etc. The different subjects face a variety of interest oppositions and coupling, and are gradually developing into a fairly typical policy network, and its embodied characteristics are highly compatible with the conditions for the application of the policy network.^[5]

3.1 Behavioural Drivers of Spatial Optimization of Public Resources

Communities have a variety of public resources, which can be divided into tangible and intangible public resources, and play an active role in the public life of urban communities. Social psychologist Kurt Lewin combined with the concept of "field" in physics to put forward the field dynamics theory to explain the behaviour of individuals, the so-called "field", as a spatial concept, which includes not only the physical spatial field of the individual's life, but also the environmental field. The so-called "field", as a spatial concept, includes not only the physical space field of an individual's life, i.e., the environmental field E (Environment), but also the psychological space field of an individual, i.e., the psychological field P (Personal), and the two fields interact with each other to influence the individual's behaviour B (Behavior). These three and f (refers to the functional relationship, can also be called a law) together constitute the behavioural formula $B = f(PE)$, in which the individual psychology as a factor that can directly drive the behaviour from the inside occupies a dominant position, is the prime mover factor, the external environment plays a stimulating role in promoting the role of the inducing force factor.^[6]

As a public resource of the city, the Covid-19 testing space is located in the public activity space and is also the activity area of residents. The differentiation of residents' psychological activities leads to different opinions on the allocation of public resources, coupled with the fragmentation of property rights and other factors, the process of its transformation and reuse is faced with the "tragedy of the anti-commons" dilemma. Kurt Lewin emphasised that "the structure of the environment changes in large quantities according to the needs of people", due to the waste of Covid-19 testing space and convenient services and other demands for spatial resources, on the one hand, the needs of people put forward the requirements for the transformation and optimisation of the environment; on the other hand, optimised environments are even more convenient for the people living in them, which not only improves the sense of well-being of the people in the environment, but also enhances the psychological well-being of the people living in the environment. On the other hand, the optimised environment is providing convenience for human habitation, which not only enhances the sense of well-being of people in the environment they live in, but also strengthens the influence of the psychological field on the continued optimisation of the environment. Therefore, from the three perspectives of reasons, concepts, and methods of integration, the residents' group guided by community gridders has put forward the ideas of reshaping the public attributes of Covid-19 testing space in the urban community, building Covid-19 testing space as the "last-metre" community service stations, and actively exploring the practice of optimising the space of public resources.

In this paper, we will explain the behavioural motivation of multiple subjects under the field dynamics theory, describe the behavioural coupling of multiple subjects with the help of actor network theory, and analyse the dilemmas and countermeasures faced by the re-engineering of Covid-19 testing space in the community according to the policy network model. Relying on the case study, it provides ideas and suggestions for promoting the resources of Covid-19 testing space in urban communities from fragmentation to integration, from dispersion to sharing, and for maximising the benefits of public resources in urban communities.^[7]

3.2 Multiple Subjects under Policy Networks

In the 1970s, policy network became an important issue in the field of Western public policy, and is a new governance model for public affairs management. Policy network is composed of various actors' nodes, and the government establishes a stable relationship with interest groups, stakeholders and other actors based on the principle of interdependence, and through the interaction of strategies, level of coordination, exchange of information and co-operation, in order to contribute to the formation, implementation and development of public policies. The policy network is usually comprised of the following actors Typically, actors in a policy network include executives, parliamentarians, academics, experts, interest groups, and individuals or groups with a stake in the policy, who are linked formally or informally for the purpose of influencing the outcome of the policy.

In a policy network, the relationship between actors is indeterminate; each action is a node, and the nodes are linked to each other in a network of relationships. In the network, all actors have subjectivity, and each other equally, between the subjects is a kind of interdependence and mutual influence of inter-subjectivity and relationship. The collaborative community governance is a practical process in which the neighbourhood committee and grid workers are the core actors, including the owners' committee, property companies, social organisations, units in the district and other subjects.

3.3 Policy Network: problems and causes analysis of Covid-19 testing locator Re-engineering

In the process of transforming idle kiosks in communities in the post-epidemic era, the transformation of Covid-19 testing space in China's communities has embodied the trend of multiple governance bodies. Several advanced models of Covid-19 testing locator construction have emerged, such as the "Love Lattice House" in Shanghai, the "Health Post" in Beijing, the "Healthy Post" in Suzhou, and the "Healthy Kiosk" in Beijing and Suzhou. However, there are several common problems in the process of remodelling the Covid-19 space

One of the problems is the lack of a network operation mechanism and institutional norms that clarify the responsibilities and rights of the multiple governance bodies involved. The government, enterprises, street offices, neighborhood committees, and residents, who are all part of the community, belong to different industries and systems. There is a lack of horizontal connection between them, resulting in compartmentalization.

Additionally, the composition of policy networks formed through community platforms varies in terms of looseness and network forms. These networks interact with the government to varying degrees and have demands for problem-solving. The community public sphere, formed by these policy networks, serves as a mechanism for residents to channel their demands and influence policy outcomes through governance mechanisms.

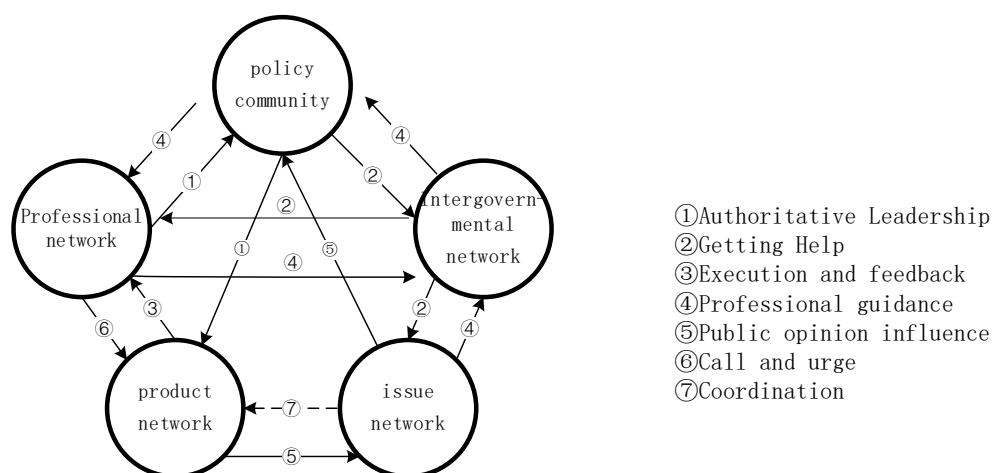


Figure 1: Policy network mapping

Based on research data and the Rhodes model, the structure of the community governance policy network of community H can be compiled. Street offices, neighbourhood committees, etc. are grouped into policy communities; local governments, local government departments, etc. are grouped into inter-governmental networks; all kinds of enterprises and industrial associations are grouped into producer networks; citizens, residents, etc. are grouped into issue networks; experts and associations are grouped

into professional networks, and the summarised and simplified structure of China's Covid-19 testing locator Re -engineering policy network structure is summarised as follows(Figure 1).

In summary, the transformation of Covid-19 testing space in China's communities reflects the trend of multiple governance bodies. Advanced models have emerged, but there are common problems in the remodelling process, such as the lack of a network operation mechanism and institutional norms. When conflicts occur, they need to be coordinated and communicated through the longer information transmission path of issue network-policy community-producer network, which is prone to forming fragile inter-network relationships and lower resilience to risks. These issues hinder effective collaboration between the multiple governance bodies involved.

4. Conclusion

In conclusion, the balance between public benefit and resource reuse efficiency in the process of transferring the Covid-19 testing space is a complex task. The key to solving the problem is to focus on the service value of public goods, while optimizing the allocation of resources to ensure that the renovated Covid-19 testing space can be used effectively. This requires the concerted efforts and participation of the government, enterprises, grassroots governance organisations and all sectors of the community to achieve a win-win situation for the public good and sustainable development.

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