

Understanding Fuzziness in Knowledge, Value, and Institutional Structure: A Case Study of Chinese Open Network Community

Yao Jin^{1*}

¹ Public Administration Department, Huazhong University of Science and Technology, Wuhan, China

*Corresponding author. Email: wuhanyaoyao@126.com

ABSTRACT

A space in an organization is necessary to minimize the structural uncertainty of the virtual world and recognize its value. In this paper, a structural problem is viewed as an inconsistent and random probabilistic event occurred in an institutional framework based on the society culture that is conditioned. According to the result of the analysis, a structural problem is an internal logical starting point of fuzziness in network communities and the main factor which causes gradual accumulations and pressures. By analyzing the structural problem based on the dimension of knowledge, value, and institutional structure in the network community, inadequate expression of hidden demand, pressure between authoritarianism with pluralism, and institutional fuzziness are deemed as the main reasons of fuzziness in Chinese network governance. Hence, the representatives or objects were selected for the survey, Changtze River Cloud community on TikTok, and STAR survey method was carried out to analyze the satisfaction ratio of public space management. By using a theoretical discussion and case study, specific counter measures such as broadening the channels of expression to address demand of net citizens, constructing cultural diversity, establishing clear standardization of process and accountability specification was proposed. As a result, explicitness instead of fuzziness transmitted by authority can make an innovation to promote the order to make a brief, creative, and satisfying institutional design for the net citizens in virtual communities.

Keywords: *Fuzziness, Knowledge, Value, Institution, Structure, Network Community.*

1. INTRODUCTION

The dynamic of today's discontinuous, open, and complex virtual space order has become a challenge which ruins the principles of internet governance. According to Habermas's structural transformation of the public sphere, a public sphere is defined as a field between the state and society whose basic principles are emphasizing participation and equality with conditions. It is characterized by free expressions and ideas, and network community is considered as the main key in enhancing knowledge transfer, expression of political or cultural rights, and as an effective medium that solves the limitations of conventional or one-way communication models. Meanwhile, the unexpected situation caused by the epidemic is profoundly unprecedented and it becomes a challenge for the government, especially for their responsibility and capability in multiple dimensions and social media for the netizens to express their opinions through a variety of channels.

"Network communities are dense and overlapping structural groups within a network" (Jingbei Wang et al., 2019). In this paper, the term "network community" refers to a virtual public space that engages the government and the users (knowledge contributor, knowledge interpreter, and knowledge communicator) to build social interactions between them. Moreover, publicity is the main goal of those interactions. When the expectations are not met in the social domain and the institutional reality, the uncertainties in the structure will occur. "It is emphasized that the pressures are caused by inaccessibility of effective institutions, such as for achieving the economic goal or any other types of highly valued 'success', and adaptations (innovation, ritualism, and rebellion) are possible." (Robert Merton, 1938) Nowadays, there are many problems in the network community, such as irregular interaction rules, unclear boundaries between public and private, and irrational expression of discourse, and it is necessary to conduct network action rules based on publicity. In other words, a space for organizations to realize its value is necessary to decrease the structural uncertainty and become a key research gap between the preference and order with institution design.

2. LITERATURE REVIEW

Network governance plays an essential role in digital governance which causes great concern in both theoretical and practical aspects. Previous

researches on network communities had been conducted, especially in examining its utility and influence (Sytych et al., 2014), its specific characteristics (Guan-Lin Chen, 2013), non-traditional security problems (Yefeng Ruan et al., 2016), development model of its regulatory governance (Jae Kook Lee et al., 2014), management of boundaries (Barrett et al., 2016), and building stakeholder association (Yuqing Ren et al., 2012; Carla L et al., 2018). The possibility of considering both qualitative and quantitative metrics to measure certain aspects or indexes of an online community is common in this topic. One representative of communities is an interdisciplinary knowledge network which integrates universities, government departments, core enterprises, and other innovations in order to enhance the knowledge transfer and transformation. A research conducted based on citation data reveals the hidden network structure of interdisciplinary knowledge flows in China and demonstrates its homogeneous link structure and heterogeneous distribution (Liu C et al., 2011). For the public network, a formal mechanism needs network administrators that are responsible for their governance in order to build a kind of shared-governance network which can form a set of discourse norms based on the public's opinions and expressions (Daniela Cristofoli et al., 2014).

The previous researches about knowledge transfer and open network communities mostly focus on innovation ability, knowledge collaboration, management strategy, the users' contribution and behavior, external source in open innovation community, governance roles of the network, and so on. In other words, the topics vary from managerial strategy, such as research on the knowledge transfer, integration, and acquisition or adaptation of knowledge communities toward the efficiency of 'Internet +community' based on different visions. Emphasizing the analysis of the connotation, characteristics of knowledge in the open innovation community is examined extensively. The development of static and dynamic multimedia and infrastructure has become one of the main factors which cause the phenomenal growth of the Internet (Volker Stocker et al., 2017). Tendency of technology utilization provides a possibility of subjective initiative in multiple subjects. The organizational relationships formed due to innovation in technology such as Facebook, Twitter, and YouTube can be used as examples of non-reciprocal media which create a sense of unpredictability around the long-term sustainability of such communities (Vindaya Senadheera et al., 2017). Network organizers are also emphasized to identify the complex problems of

establishing goal consensus in leading organization-governed networks. As compared with the role of facilitator, commissioner and co-producer are much better needed to achieve the goals as the consensus in service networks (Peter Raeymaeckers et al.,2017).

Regarding the rapid development of social media used by the netizens, the researchers aimed to reveal the relationship between governance and performance of network communities from the perspective of users or mechanisms. Procedural or content legitimacy of social platform systems were analyzed based on netizens' demand and psychological preferences (Claire Connolly Knox,2013). There was a similar study examining how the use of Twitter and Facebook affects the citizens' knowledge acquisition, and whether the effect is conditional upon people's political interest, such as Mark Boukes (2019) in order to explore the decision-making mechanism in the network community, Junfeng Chu proposed a method of solving the incomplete fuzziness, and preference relationship by dividing social communities to balance different centrality of community (Junfeng Chu et al,2020).

Despite the increasing number of literatures in the open community, it is still limited in identifying the citizen's experience or public value from down to top. Meanwhile, the emphasis is there are several consensus as follows: (1) governance in network communities involves integrated management out of the existing order which are distributed across borders; (2) open innovation of these public communities is mostly stuck in its early stage (Ham Juyeon et al.,2015); and (3) it is still correlated with the traditional managerial process or spirit, such as emphasis on authority or control. Regarding these consensus, the researchers try to present the structural problems in the form of internal logical starting points of fuzziness in the network community and the main factors which cause gradual accumulation and pressures in the process of social tension. Hence, the network community embodies a series of problems which are unnecessary to construct a truly spiritual home for the citizens. By building a space for organizers to realize its value, it is necessary to focus on public engagement and their internal world. In addition, as the problem solvings, we aimed to analyze the reason fuzziness occurred in its structure and try to give insights in order to reduce any ambiguity, and as the main research gap between the existing order with institution design.

3. RESEARCH FRAMEWORK AND METHODS

To reveal a contradiction between demand-side and supply-side of virtual space, the emphasis is on the fragmentation and diversity and it requires further theoretical development. Structures are needed for stakeholders to address social responsibility issues in order to clarify responsibilities (Xue Lin, 2017). According to Stéphanie Dameron's study on discourse and subjectivity, the researchers viewed structural problems as inconsistent and random probabilistic events in the institutional framework, while the society culture is conditioned.

Technical, rational, and entrepreneurial contribution of citizens is compatible in public administration practice (Thomas A. Bryer,2020). Due to its diversity and complexity, the dynamics of network community governance based on technology fusion and citizen participation in China still have several obstacles. When we address problems with incomplete fuzzy preference relations, feasibility and advantages of the method should be considered (Junfeng Chu et al.,2020). To understand its preference, function, and characteristics, a representative object is selected, and the community officially formed by the government on TikTok which represents the new medium in conducting the survey.

3.1 Research Object

Understanding the internal relationship and operating mechanism of virtual space which are directly associated with the level of governance have caused some pressures. The form of expression of social members in the new era are shown in the process of technological and scene exchange. The network community officially formed by the government and released on TikTok is an example of network governance mode. In this paper, we choose the representative of the network community led by Changtze River Cloud on TikTok. In the process of implementing modernization of national governance, the new media gradually develop various management tools with more interactive social localization, like content promotions that are more fashionable, user-centered, and increasing several aspects related to people's daily lives in promoting the dissemination. Official release on TikTok plays a very important role in promoting the trend. While plates aim to promote resilience, both the formal and informal social interactions can influence the

individual’s decision-making to participate.

As an open and innovative community, the short video on TikTok account has successfully attracted the public’s attention. The focus is always on recording users' preferences, updating its contents, and concerning the customers’ feedback. The development made by the community from spontaneous to conscious has transferred the knowledge with broader interaction. For the official account of the government released on the platform, the content is presented with current affairs and politics, and its function in deep exploration is limited.

Table 1. Survey design of Structural Uncertainty presented on Network Community

Level Indicators	Secondary Indicators	Thirdly Indicators
Knowledge Structure (A)	Content (A1)	(A11) diversity of knowledge
		(A12) timeliness of knowledge publishing
		(A13) existence of tacit knowledge
	Form (A2)	(A21) visibility of form, such as articles, pictures, music, short videos and its combination
		(A22) released selectively
		(A23) adhere to certain political, cultural or utilitarian orientation
Value Structure (B)	Aim (B1)	(B11) value heterogeneity
		(B12) freedom of expression
		(B13) rights to defend opinions if has conflict with other members
		(B14) cultural identity
	Objective (B2)	(B21) clear purpose to serve the public
		(B22) open, inclusive, and innovative atmosphere
		(B23) users’ demand for knowledge, pleasure, and interest can completely met
		(B24) theme and related activities of the community are in line with its positioning
	Reciprocity (B3)	(B31) awareness of the users’ demand and related action
		(B32) cooperative consciousness among users
		(B34) sense of gain among users
		(B33) sense of gain among users
Institutional	Accountabilit	(C11) clear rights and

Structure (C)	y (C1)	responsibilities
		(C12) equal distribution of power among the communities members
		(C13) master consciousness in the network community
Norms (C2)		(C21) clear definition of norms
		(C22) norms can ensuring the rights of users
		(C23) existence of unspoken rules
Organization (C3)		(C31) information release mechanism, decision-making process and consultation mechanisms is transparent and clear
		(C32) regulation of the network community run in an orderly manner
		(C33) adoption of suggestions is open and transparent
		(C34) users’ participation can influence the development of policy and policy implementation

The survey design is aimed to identify the sources of structural problems which are potentially applicable for building an innovative and responsive community. In the survey, it can be concluded that the evaluation of the knowledge structure, institutional structure, and value structure of the virtual community is supposed to be analyzed based on subdivided indicators. In addition, several factors like contents, objective, accountability, norms, and organizations which can affect the operation of virtual communities and their internal relationship should be highlighted.

3.2 Survey Process

The survey was divided into four steps. The first step was conducting a literature study and collecting relevant information (Situation); the second step was conducting an online interview and setting the goals and several tasks (Task); the third step was selecting the group and arranging the interview plans (Action); and the fourth step is analyzing result of the survey result (Result). All steps were conducted based on the whole train of thought and order.

First, in order to fully grasp the characteristic of the objects and subjects, more details were important to be examined. Therefore, the researchers conducted

a literature study to learn about “Changtze River Cloud” community and find experiences through various channels before conducting the interview. ‘Changtze River Cloud’ is an official news where the administration is conducted by Hubei Radio and Television station. Its radio, television station, and Wechat public account have the same names as its TikTok platform since 2017. Until October 2020, almost 10 works have been viewed more than 100 million times according to the data of total visits, especially for the new national press conference and Hubei epidemic prevention press conference series, both of them have reached 1.2 billion audiences, and the whole network hits 200 billion audiences. Moreover, the influence is significant in the local area. When a separate investigation is conducted with the government official release on TikTok, the data shows some differences. Generally, except for a few hot topics like innovative actions in fighting COVID-2019 which can reach more than 100,000 clicks and thumb-ups, the average number of views for each work is ranging from 40-80 audiences, and no user would like to give any comments.

Second, the task is fixed. For the aim of in-depth analysis of this topic, purposive or judgmental sampling was applied and 18 representatives were selected, including students, the stakeholders in public institutions, employees of enterprises, and other occupational groups. The interviewees were mostly from college students, white collar workers, couriers, and small vendors. The percentage of males was 55.55%, and for females was 44.44%. The majority of the interviewees were 18-35 years, and most of them have achieved a bachelor's degree. Overall, the scope and level of the research samples basically reflected the basic structure of Chinese communities.

Third, the action is started. The outline of the interview was based on the technical points of semi-structured and in-depth interviews, comprehensively considering the subject dimension and dynamic dimension, and conducted deeply during the interview process. The content consisted of three major types of issues: expression of knowledge needs, the degree of coupling on the platform, and problems of the institution design. In order to ensure that all interviewees can answer the major questions on the interview outline, the researchers conducted the survey in the form of a free chat, but still ensured that the discourse initiative was appropriate. Each interview took about 20-30 minutes, and the location was randomly determined.

Last, the researchers summarized the interview based on two sides. Based on the demand, according to the characteristics of each subject, the researchers focused on the issues that the interviewees care about. According to the results of the interviews, the researchers found that the males care much about news and politics and have deep knowledge and extraordinary insights about network governance, especially about its system construction and operation. Meanwhile, the females care about the news timeliness, the extensive content, and values of the related conflict. Due to the different backgrounds of education and occupations, their focus is also different. For college students, their biggest concern is whether Changtze River Cloud platform in TikTok or other network communities can make a better audio-visual experience, build a smooth platform for communicating with other peers, and solve practical problems such as making friends and finding identity. Their second biggest concern is whether each participant has a clear role orientation to avoid non-traditional security issues, such as information safety, adverse selection, as the explicit knowledge transmission about COVID 2019, etc. This group has a strong sense of participation in the virtual community, and their discourse is not always in line with the official discourses. For the white collar workers, they care about the value of coupling degrees of the platform, the logical starting point of the news reports, and they care about how the government’s TikTok short videos should share more in-depth knowledge. Most white collar workers do not care if they are actually participating in the space, but they care for the policy configuration and power distribution behind it. For the couriers and small vendors, there is not much demand expression but they care about the reliability and utility of knowledge. Meanwhile, the group with different ages has different focus on online virtual communities.

Table 2. Demographic characteristics of the Interviewees

Item	Content	Quantity	Percentage
Gender	Male	10	55.55%
	Female	8	44.44%
Education	High school and below	2	11.11%
	Bachelor	11	61.11%
	Postgraduate	5	27.78%
Profession	College Students	8	44.44%
	White collars	3	16.67%
	Courier	2	11.11%
	Small vendors	5	27.78%

In the supply-side aspect, the lens seems unable to capture the law, standard or focus of official knowledge release mechanisms which are collectively related with the three dimensions. Generally, the governors and the users' knowledge tend to form two polarities: knowledge creators and receivers. Even though this point of view has certain characteristics, it lifts the discussion from events level to the main structure. The relationship between the creators and receivers is actually good, especially in upgrading the knowledge and cultural services, but it lacks feedback or two-way communication. Hence, no users would like to act as interpreters of the government's official release on TikTok due to various reasons, such as no sense of participation, have no time, etc.

3.3 Satisfaction Effect Analysis

After collecting the data from the survey, the transcribed texts were analyzed. The satisfaction with the community created by the official government's on TikTok mainly comes from its punctuality, reliability, and comprehensiveness. First, as the main source of local authoritative news, the news media community led by Changtze River Cloud provides equality of information access, authentic and reliable information, emphasizing that knowledge sharing between government and public is smooth for common goals of cooperation or solving problems encountered in the process. 90% interviewees reflected that the atmosphere of the government's Official Release on TikTok is objective and fair. Second, the intuitive expression method and life-style expression of short videos changed the length, capacity, and segment of the traditional official release to make the outputs smoother and conducive to the netizens' participation. Last, the official release tends to promote those short videos that contain more comfortable and personal benefits. Even though the decentralized and fragmented knowledge transmission has its value orientation, there are some discourse platforms built by certain interests at certain levels.

Dissatisfaction mainly comes from the knowledge structure, value structure and institutional structures, such as from the dimension of knowledge structure, the imperfection of the down-top expression mechanism is an outstanding problem. 50% participants revealed that the news about the community are not correlated with their daily lives, with a certain degree of utilitarianism. Commonly, the network community is a field that tends to focus on typical and personalized hotspots.

The dissemination, reinterpretation, and consumption of the knowledge made the hot topic of individual events can easily evolve into public concerns. Meanwhile, the focus of the public's long-term problems can increase into focus just through accidental exposure or the reveal from Changtze River Cloud, Huber Lease, and other hot new media. Furthermore, due to the users' low participation and the unequal knowledge level and knowledge sharing ability of users, the knowledge presentation in virtual communities dominated by authority is fragmented in content, stuck at the level of fact reporting, which causes difficulties for the community members in acquiring the value. Therefore, the manifestation of content and form has certain characteristics of goal-fixing and provides support to the officials.

According to the perspective of degree of value heterogeneity, the level is not high, 77.78% interviewees expressed their 'mainstream' agreements, as promoted by the government. In addition, they consider that the government should be responsible for launching the project of information dissemination related to the authority of the news. The paradoxical relation is also studied, especially in the impact of the community to users' perception or experience. Almost 66.67% reveal that when their value orientation is not in line with the platform, they usually keep silent, and expressing their opinions is not necessary. It potentially shows an incomplete participation scheme and mismatching between preferences and decision-making of the community governors.

Based on the institutional structure, the public participation of the community created by governmental official release of on TikTok shows the characteristics of weak participation at the stage. Some interviewees reveal their experience of passive participation and symbolic participation in this field, the behavior such as being forced to forward or thumb-up. Even for the net citizens who are interested with contents, their participation rate is not much closely related with the launch activities. The symbolic participation is based on the dissemination of patriotism, interest or favor focused on one point. For interaction activity, most interviewees said that their experiences of comments are not broadcasted and they do not receive any responses from the official platform. For example, there was also a public leaderboard measured by thumb-ups and forwarding showing the most dedicated fans. Only 33.33% interviewees indicated that the official release encouraged users to share their ideas by participating in interaction and reflect their support in forward, comment, and thumb up, etc. Some

interviewees expressed their experience of isolation during the feedback process. Sometimes they need to defend their opinions in front of other stakeholders.

As a result, the satisfaction ratio is closely correlated with the citizens' welfare while active expression and participation is usually regarded as effective indicators of public space management. The active degree of participants in the network community is affected by the quality of knowledge products (services) supply and the motivation intensity of individuals. In addition, the nurture of cooperative consciousness depends on its specific situation. The web behind social networks is also discussed, the analysis should not be limited to the field of communication or culture, but should be connected with the more engagement of national structure, even political operation mode, the power relationship behind the publicity of media.

As reflected by selective preferences of the public, fuzziness comes from structural problems which have complex norms. Hence, in order to understand its mechanism, we need to analyze the reasons lying behind the in-depth mechanism.

4. ANALYSIS OF THE CAUSES OF FUZZINESS IN THE NETWORK COMMUNITY

The uniqueness of network governance in China can be highlighted as event-centered, path locking, order-oriented, or in other words, it concerns on sustaining the normal rule and categorization. In this paper, structural uncertainty is viewed as an inconsistent and random probabilistic event rooted in a framework through which institutional path locks and practitioners can experience. Specifically, structural problems are the internal logical starting point of fuzziness in network communities and the main cause of gradual accumulation and pressures in the process of social tension.

4.1 The Inadequate Expression of Hidden Demand

Both new public service theory and co-production theory have emphasis on demand orientation, which requires the government to optimize the decision-making process based on the collective demand of the public. As a result of rational communication and two-way understanding between humans and the outside world, tacit knowledge is the result of hidden demand. For the official account of the government official release

on TikTok, it seems to be stuck at an event-centered level and contain only a few in-depth analyses. It is considered as an epitome of the mainstream governance mode dominated by top-down transmission. Usually, bloggers who conduct in-depth analysis of current affairs and politics are usually not official, but more about business or knowledge-based paid operators. The different focus in exploring the hierarchical spread of knowledge may cause a problem in identifying the differences between the folk discourse and official discourse to a certain degree.

Nowadays, the field of knowledge management has questioned what it means by knowledge of structural equilibrium. Dominant trends of official knowledge sharing have caused changes in the pattern, pace, and style in organizations culture, resulting in enhancing the knowledge content and transmissible intensity of internet communities, while neglecting the dialectic relationship behind the tension of explicit and implicit knowledge. In most cases, citizens are unwilling to express their value, idea or demand, and silence cannot be considered as a unanimous but inadequate expression of hidden demand. Likewise, the crisis of structural equilibrium of knowledge structure in the web community comes from such phenomena as the identification of the differences in the public online participation and the game between folk discourse and official discourse.

Vagueness and ambiguities are still found in institutional settings. Compared with art and entertainment in TikTok, the reasons why there is inadequate expression of tacit demand in the official account of the government's official release can be concluded for many reasons. First, since the number of interactions on the web have increased significantly, it is difficult to keep on the track due to the real demand caused by its discourse (Punam Bedi et al., 2016). Tacit knowledge contains a lot of metaphors since some first-hand experiences cannot be obtained and transformed in the network and causes difficulties in knowledge acquisition which is full of uncertainty. As it is presented, the top-down knowledge is inappropriate for the potential consequences, benefits and risks, agenda making, and identifying the stakeholders' problems. Second, knowledge structure is complicated and obscure lies in the fact that the knowledge transmission does not follow a balanced spread pattern, but aims to reach any gathering point in the network. The researchers also found that higher levels of web community interactivity lead to a more intense experience of knowledge cohesion, resulting in more beneficial

responses, such as positive feedback and exemplary behavior (Guda van Noort et al., 2012). Third, due to the overlapping information on various platforms, the information spread and heard by the citizens' and causes the useful information to be really difficult to judge. One representative case is the event concerned with the public health crisis on the complex networks that represents a non-linear spectrum of cognition among the public. For example, Doctor Wenliang Li used to issue an alert to remind his family and friends of the dangers in the early stages of the epidemic outbreak, which triggered huge concern among the public but no positive response from the government. One of the reasons reveals that tacit knowledge is an accumulation of experience often acquired through personal practices with the characteristics of significant individual attributes. Last, as limited by the cultural tradition and stake of Chinese society over a long time, path dependence in city's governance locks deeply in the existing order.

According to Guy Debord's view, only the explicit knowledge with symbolic value and meaning is the representation of modern society. Meanwhile, analyzed from the external environment, there is no regular and clear channel for the presentation of hidden demand and special care, thus the strain between the inadequate expression of implicit knowledge and explicit demand will no longer exist.

4.2 . The Structural Stain between Univariate Authoritarian and Pluralism

To a large extent, the network community represents a mixture of rationality and sensibility, promoting civic awareness and diversified expressions is what it is meant. Then, how to balance diversified expression with common-identify psychological construction according to situation changes has always been a nontraditional safety problem that the official has not yet totally realized. When examining the value structure tension of government-dominant network communities, an opposed theme stands out: Univariate Authoritarian vs Pluralism. In the open network community, the representation of web order turns to the discourse democratic, while the harmonious and onefold value dominant process of discourse production is needed to make the foundation of public space, and value structural equilibrium is better justified in some "rational-expectations" situations than others.

Assessing the effects on network structure, the

organization with strong heterogeneity and inclusiveness seems to show a tendency in gaining critical information and controlling the advantages. The index of heterogeneity and inclusiveness is used to measure the difference of degree in social relations, market share, innovation index, since it can be used to test the relationship of social recognition, pluralism of ideas among stakeholders within the virtual field. Pluralist notion sees networks as flexible consisting of complex interdependencies through which innovative subjects rule the development of policy and its implementation.

Network communities present the prototype of the multiple public sphere, but there is the gap between authoritarian and public rationality. For example, due to the advantages of information and interaction in political or cultural participation, higher social strata may potentially give them leading power on public issues. Controversy remains at a high theoretical level but lacks practical meaning for it only affects personal action and has no concrete consequent institutional implications (Hajer et al., 2003). To keep the scale, traditional measures of information release as a univariate phenomenon may not be dynamic enough to adequately describe the complex nature of social interaction. There is a survey lead by Tsinghua University found that social networks with high degree of heterogeneity are not conducive to resource integration and not beneficial to entrepreneurship (Jing Song et al., 2019). In the 5G era, open information disclosure and online service, extensive public participation are regarded as an open attitude and the main functions of e-government promoting the formation of common action. Though the openness of the network communities lowers the threshold of participation and enhances the power of the public, it cannot automatically make an open mind and harmonious movement. For its complex and uncontrollable features of the internet, it is difficult to clean up inferior resources and malicious users in open communities. Further, the 'public value' is a fuzzy concept that is consistently used to measure effectiveness of service provided by the government (Moore, 2000; Kelly, 2002; Alford and O'Flynn, 2005). In this research, the creation of public value does not only refer to the services provided by the government, but also should include the value of trust or fairness in the process of public interaction. However, public values are rarely mentioned in co-governance in the Chinese virtual community. Beyond the various values, it has already been confirmed the introduction of innovative participatory tools will create new classification when it comes into play (Alessio Maria Braccini et

al., 2017). Moreover, sometimes the organizers deliberately hide the truth or inaction in facing public problems which turn into public doubts and can significantly affect the government's credibility and sensual emotions can also influence each other, causing spread of rumor or polarization in public opinions.

For these gaps between individual and collective vision, strain from confusion or conflict of values forms. Inconsistent values may lead the netizens to give votes and the phenomenon of "silent majority" occurs. As a common case represented in the Suzhouwenzhong BBS, the influence of public opinions in government-led virtual communities is obviously insufficient and further affected by the diversification of modern value of official orientation and the diversification of social interests (Lwi Song, 2017). Either the control or the empowering aspect can be experienced by the community to make an action based on the lead or depending on the relations of power and trust that surround implementation of the web system. For differences in socioeconomic, cognitive, and cultural resources, social reality of network empowerment in political discourse will not easily disappear. Based on the perspective of management, in order to successfully achieve the value goal of public governance, an ideological consensus must be formed on the priority of public interests (Lin Zhang, 2017). Further analysis reveals that the phenomenon of new media transmission, such as Twitter and Facebook, is closely related with the citizen's political participation willingness and communication ability (Mark Boukes, 2019). The coefficient of interaction effect potentially reveals value identification in structural space, as strengthened or weakened by the sense of participation.

Among the policy communication channels for the public, there is a significant 'rising tide lifts all boats' symbiosis in new media channels with a large number of users. Some scholars focus on the architecture and interface of the system to remove its ambiguity by introducing formal definitions of concepts (Hussein A. Abbass, 2016). However, making some anticipations for the changes is hard, since equilibrium itself is a difficult indicator to measure.

4.3. Institutional Blurring Lying in New Media Network Governance

Based on public production, consumption, entertainment to political participant activity, public

and private, policies and management standards, policy preferences and orientation have increased the blurred borders, especially presented as infiltration of boundaries with each other and offshoring or contraction problems. In these boundary-blurring situations, organizations may be inclined to carry out governance actions and to meet the self-interest as caused by rationality-expectation, which can easily lead to path lock and accountability avoidance, using ravine among internal and external stakeholders and damage to the welfare of the citizens. By exploring deeply, even though the orientation of network governance advocates mutual benefit where all parties in the field can take active self-discipline in competition and cooperation, its opposite is on the practical level. At the same time, there are some unanswered questions in a lot of topics worth discussing for policy setting about virtual space's construction. For example, Norris put forward that digital technologies could create new inequalities and reinforce the dominance of elites (Norris, 2001). Based on the empirical study of Japanese online gaming communities, the researchers found that the online communities provide access to link the social capital through heterogeneous populations in the shared contexts (Kobayashi, 2010). A researcher treats social media as an information system in order to construct a new model to provide dynamism for social media strategy as a support of greater social agility [42]. Nowadays, there are some skill barriers in operation, such as strategic choice and adverse moral, the dilemma of collective action, the lack of unifying operation rules, and the difficulty of acquiring public response, which creates a sense of unpredictability around the long-term sustainability of such communities.

A context of analytical thinking is provided to guide the public users into context which is sensitive enough to the situation. The premise of establishing robust connections between netizens with institutions, revealing its existing institutions with competence, requires mapping web user's demand with reaction rather than strategic choosing. In the traditional model, due to hierarchical empowerment, the effectiveness of transmission was limited by numerous regulations and laws (Jan Eric Lane, 2004). Specifically, based on its size and complexity, China's long administrative history has entrenched a strong-government culture resistant to power sharing with external actors which is unfavorable to collaborative relationships between government and social organizations (Yijia Jing et al., 2017). In the specific management of today's web order, although there is a typed thinking of categorization and standard, the macro policies and management

standards present a certain degree of fuzziness. On the one hand, most of the policy texts can't form operable rules and tend to present the technical governance of 'one case, one law' in the network community. A clear example is that one official ordered the demolition of the bird's nest in the community due to the bird droppings, and reordered to build the bird's nest due to media disclosure. In the first day's reporting, the official release was rendering the pollution caused by bird droppings while the other day advocating the importance of protecting birds. Meanwhile, there are other cases, such as policy formulation both online and offline that is often led by political interests rather than being underpinned by robust evidence, which aim at "policy-based evidence making" rather than employing "evidence-based policy making" (Arshed, N et al., 2014). On the other hand, policy preferences for formalism often hinders the rapid and proper response of the decision-making system in its self-organizing system, for rigid superstructure form cannot match a flexible and a broad mass-based governance system.

Internal stakeholders struggle to reach authority may lead to structural disequilibrium in the community. Among internal stakeholders, different roles played by different groups form an asymmetry network containing a variety of relationship ties, authority on a small scale, as concerns and being concerned, opinion leaders and followers. A widespread notion that specific interactions with the opinion leaders can drive the diffusion process implying the disequilibrium of information transmission in the network structure (Rogers, 2003). The snowball-like chain of the common network structure grants the specific initiator, the information publisher, a kind of dissemination power, and requires the receivers to respond. The general strategic arrangement promotes a core leading force to effectively integrate the demand information of all parties and coordinate the interest relations. This requires metagovernance to be invoked as a response to the more specific changes of nonhierarchical modes of governance as alternatives to hierarchical top-down steering by national governance (Luc Fransen, 2015). Practices that integrate centralized decision-making in network governance can easily lead to problems such as the 'silent majority' among internal stakeholders in administrative dominant network communities unable to overcome or change which make an insurmountable obstacle of fragmented authority phenomena. In addition, the established policy preferences may lead to a certain degree of neglecting cognitive, affective and behavioral

responses of individuals. Further, users subjected to extensive transparency regimes develop mixed habits of resistance and emancipation that could allow invisibility of themselves for professional or ethical purposes (Stohl C et al., 2016).

Exogenous tensions foster the dilemma of non-traditional security issues for boundary-blurring. As a mixture composed of various organizations and individuals, the distinction between inside and outside organization issues in strategic thinking remains a means of structuring for strategists, discourses on strategizing highlight a tension between an exogenous-based view of strategy (Stéphanie Dameron et al., 2014). Another decision making model of networks is replacing the integrated centralized decision-making and decentralized the decision-making, in order to realize the transformation from the traditional single-center to the multi-center which can form a strategic path for the reform of the macro-management structure. If division has autonomy, a lack of coordination between the divisions and central management systems will occur, since the organizers might engage in actions that would benefit their stakeholders but hurt the interorganizational relationship instead (Julio B. Clempner et al., 2019). Institutional blurring in this situation is brought by the increase of coefficient of cross-border level. Around how to actively cope with the public crisis, the presence of both open access and platform-based information mechanisms come into play. For one case, the invisible spread of knowledge about the Covid-19 involved an unbalanced multi-centered discourse authority which draws together and even opposes the ideas from i-space, including wechat, blog, BBS, and discussion forums to form different trends of thought which can easily lead to spreading of rumor and distorted information. Under these circumstances, the internet community is led by the government as a centered field to meet the challenges of collaboration with stratified potential classes to promote open communication. The access gap of political, industrial, and cultural information has been narrowed, However, some uncertainties such as the lack of confidence, using the ravine among internal and external stakeholders still exist. To cope with the uncertainties in both historical and structural importance, the main factors should be considered: what kind of attitude and methodology should the competent authority adopt to avoid fuzziness in institutional construction?

5. COUNTERMEASURE

In looking for solutions within an open framework, it is possible to appreciate innovative management involvement throughout all of the stages of initiative. Under the guarantee of scientific design, the premise of co-governance in open innovative community needs the equal participation of multiple subject to realizes the stated goals: first, the users can fully express their own needs; Second, cultural identify based on diversity can be the basic value; and last, consolidation of collaborative accountability in multiple-subjects participation system is needed to lay out solutions.

Broaden the channels of expression to address demand transparency of users is needed. The openness and interaction in the fuzzy makes the decision-makers to make changes in the external environment with explicit knowledge, allowing the previous creative associations to be reconsidered (Katrin Eling et al., 2014). Aron had verified that group reflection as a macrocognitive function has the tendency to make the resilience-related knowledge explicit (Aron Wolf Siegel et ai.,2014). In addition, the concern on semi-structured knowledge contains useful information, such as a self-created work and effective discourse transmitted by the media in order to promote the existing order among governments, communities, and citizens. Deep meaning of knowledge can be developed not only from internal path and discovery of the community, but also on the distinctive external source and professional data collectors, such as acquiring knowledge from various types of data used in web communities, in order to be transformed and formalized for the application (Christian Severin Sauer et al., 2014). Big data processing depends on the willingness of the transfer process, and there is no difference between production and consumption time, based on the analysis of user information and browsing, access to the user's interests, etc. By utilizing modern technology, readability, and automatic matching, it can extend the demand of the daily lives transformed into valid data to realize clear governance. The explicitness process is also facilitated by the sharing of knowledge among the contributors, knowledge interpreter, knowledge communicator, and organizers while extending the equal standardization to network society.

Cultural identity based on diversity has been introduced into this context to provide reasonable legitimacy for consensus-based partnership of the virtual world. Within an innovative social

environment, it is important to understand not only the necessary things in managerial mode to change, but also the multiple values hidden in structure as it has the possibility to successfully translate into creativity and vitality. To relate organizational value with pluralism, coordinating internal stakeholders with external stakeholders, trust is highlighted to achieve diversified governance objectives and the goal of functional linkage. The results of the analysis indicate that over time contracting among government and NGO may lead to generation of mutual trust, acquisition of governing resources and consolidation of collaborative accountability (Yijia Jing et al.,2017). Beyond trust building, cultural identity provides a relatively goal-oriented context for multiple subjects and offers insights for the collaborative organizations while diversity advocating pluralism in specific scenario application, as presented in Changtze River Cloud community. As the form of performance is characterized by information spread or interactivity, the core value of co-governance in the network community is to have wisdom to enhance the governance performance. Shared value is promoted and associated by accessing, transferring, and assimilating knowledge outside to make a variety of demands be optimally reached. In addition, to which extent that internal stakeholders and external stakeholders can make a balance between multiple can potentially solve the demands depend on multivariate analysis.

Regarding the application scenario, replacing the short-term governance orientation with the goal of systematically reducing conflict values can make an effort to reduce structural uncertainty related with unclear responsibilities of this field. Beside value orientation, cultivating identity requires coordination across diverse activities and among different roles. It is proved that reciprocal relationships are constructed when policy providers are more engaged and direct advocacy tactics are promoted (Mosley etal, 2019).

The assignment of authority according to the specific need based on organizational support is the foundation of modernization transformation of the network community. Research evidence that networking approaches based on coordinative, cooperative and collaborative networks have enhanced effectiveness of follow-up in its governance arrangements (Umor etal,2020). Following consolidation of collaborative accountability in multiple-subjects participation systems is the key to address structural problems related with unclear responsibilities of this field. To avoid the problem caused by institutional fuzziness, for example inconsistent policies, it is necessary to

establish clear standardization of decision-making process, accountability specification and a collaborative and responsive relationship between users and organizers. The measures should be done through transparent procedures, providing a medium to communicate freely, and a commitment to ensure the balance of power distribution (Xue Lin, 2017). In supporting the policy configuration of the network community, the premise is to strengthen the relationship between various parties and to give community organizers and knowledge users the chance to participate in governance. In line with creative association in the cloud and users' end increase functional complexity, reciprocal cooperation and accountability mechanisms have chances to make the community evolve into a dynamic and balanced space with lasting value orientation.

6. FUTURE RESEARCH AND CONCLUSION

Understanding fuzziness in structure aims to be the first step of solving problems and building awareness in constructing a higher level of welfare for netizens in the digital era. Solving the structural fuzziness caused by uncertainty and tradition emphasizes several concerns: awareness of the existing problems, focus on social psychology, consensus, and coalition building, and clear reconstruction mode. Nowadays, the problems faced in network communities are not in the technical barriers of participation, but rather in the lack of links between demand side and supply side, fuzziness in the institutional setting, and tensions in measurable practice.

At the organizational level, all the main contradictions focus on fuzziness. The reconstructive arrangements for the open community depending on social, technological, and cultural co-governance processes provides the framework and foundation of mutual influence between actors and institutionalized context. Through the discussion, the explicitness is transmitted by the authority to promote the existing order and to be more open, and it creates creativity and satisfaction for the netizens instead of ambiguity.

In the post-epidemic era, enhancing people's sense of participation can meet public value from various aspects. In addition, it can avoid the knowledge, value, and institutional barriers that not does not only come from the pluralistic dialogue mechanism advocated by multiple governance

movements, but more from the recessive development force. To cope with challenges and risks, open network communities should be fully exploited to transform hidden demand of net citizens to obtain more useful data for governance, to replace the univariate orientation with the goal of systematically consistent values, to make the clear border in the institutions by building a collaborative accountability in its system, and by building a transparent governance, open network communities can be managed to sustain ecological equilibrium of people's welfare in certain contexts.

REFERENCES

- [1] Alessio Maria Braccini, Tommaso Federici, Øystein Sæbø. (2017). Tensions in Online Communities: The Case of a Mass Size e Participation Initiative. *International Conference on Electronic Participation* 10429: 20.
- [2] Aron Wolf Siegel, Jan Maarten Schraagen. (2014). Team reflection makes resilience-related knowledge explicit through collaborative sensemaking: observation study at a rail post. *Cognition, technology & work* 19 (1): 127-142.
- [3] Arshed, N., Carter, S., & Mason C. (2014). The ineffectiveness of entrepreneurship policy: is policy formulation to blame? *Small Business Economics* 43 (3): 639–659.
- [4] Barrett, Michael, Oborn, Eivor; Orlikowski, Wanda. (2016). Creating Value in Online Communities: The Sociomaterial Configuring of Strategy, Platform, and Stakeholder Engagement. *Information systems research* 27 (4): 704-723.
- [5] Carla L. Wilkina, John Campbellb, Stephen Moorec, Jason Simpson. (2018). Creating value in online communities through governance and stakeholder engagement. *International Journal of Accounting Information Systems* 30: 56-68.
- [6] Christian Severin Sauer, Thomas Roth-Berghofer. (2014). Extracting knowledge from web communities and linked data for case-based reasoning systems. *Expert Systems*, 31 (5): 448-456.
- [7] Claire Connolly Knox. (2013). Public Administrators' Use of Social Media Platforms: Overcoming the Legitimacy Dilemma? *Administration & Society* 48 (4): 477–496.

- [8] Daniela Cristofoli, Josip Markovic, Marco Meneguzzo. (2014). Governance, management and performance in public networks: How to be successful in shared-governance networks. *Journal of Management & Governance* 18 (1): 77-93.
- [9] Guan-Lin Chen. (2013). Sense of virtual community and knowledge contribution in a P3 virtual community Motivation and experience. *Internet Research* 23 (1): 4-26.
- [10] Guda van Noort, Hilde A. M. Voorveld & Eva A. van Reijmersdal. (2012). Interactivity in Brand Web Sites: Cognitive, Affective, and Behavioral Responses Explained by Consumers' Online Flow Experience. *Journal of Interactive Marketing* 26 (4): 223-234.
- [11] Ham Juyeon, Lee Jae-Nam, Kim Dan J, Choi Byounggu. (2015). Open Innovation Maturity Model for the Government: An Open System Perspective, 2015 International Conference on Information Systems: Exploring the Information Frontier, ICIS.
- [12] Hussein A. Abbass, Eleni Petraki, Kathryn Merrick, John Harvey, Michael Barlow. (2016). Trusted Autonomy and Cognitive Cyber Symbiosis: Open Challenges. *Cognitive Computation* 8: 385-408.
- [13] Jae Kook Lee, Jihyang Choi, Cheonsoo Kim, Yonghwan Kim. 2014. Social Media, Network Heterogeneity, and Opinion Polarization. *Journal of Communication* 64 (4): 702-722.
- [14] Jan Eric Lane. (2004). *Public Sector: Conceptual Models and Approaches* (3th). Beijing: Economic Sciences Press.
- [15] Jingbei Wang, Naiding Yang. (2019). Dynamics of collaboration network community and exploratory innovation: the moderation of knowledge networks. *Scientometrics* 121(2):1067-1084.
- [16] Jing Song, Jin Chen. (2019). Entrepreneur social network, organizational legitimacy and entrepreneurial enterprise resources bricolage. *Studies in Science of Science* 37 (1): 86-94.
- [17] José Luis Martí. (2017). Pluralism and consensus in deliberative democracy. *Critical Review of International Social and Political Philosophy* 20 (5): 556-579.
- [18] Julio B. Clempner, Alexander S. Poznyak. (2019). Solving Transfer Pricing Involving Collaborative and Non-cooperative Equilibria in Nash and Stackelberg Games: Centralized- Decentralized Decision Making. *Computational Economics*, 54 (2): 477-505.
- [19] Junfeng Chu, Yingming Wang, Xinwang Liuc, Yicong Liu. (2020). Social network community analysis based large-scale group decision making approach with incomplete fuzzy preference relations. *Information fusion* 60:98-120.
- [20] Katrin Eling, Abbie Griffin, Fred Langerak. Using. (2014). Intuition in Fuzzy Front-End Decision-Making: A Conceptual Framework. *Product Development & Management Association*, 31 (5): 956-972.
- [21] Kelly, G., G. Mulgan and S. Muers. (2002). *Creating Public Value: An Analytical Framework for Public Service Reform*. London: UK Cabinet Office.
- [22] Kobayashi T. 2010. Bridging Social Capital in Online Communities: Heterogeneity and Social Tolerance of Online Game Players in Japan, *Human Communication Research* 36 (4): 546-569.
- [23] Lin Zhang. (2017). Value conflict and integration in cooperative governance, Party School of CPC Jiangsu Provincial Committee, Master degree thesis.
- [24] Liu C, Shan W, Yu J. (2011). Shaping the interdisciplinary knowledge network of China: A network analysis based on citation data from 1981 to 2010. *Scientometrics* 89 (1): 89-106.
- [25] Luc Franssen. (2015). The politics of meta-governance in transnational private sustainability governance. *Policy Science* 48 (3): 293-317.
- [26] Lwi Song. (2014). The government's leading virtual community. Master's Thesis of Suzhou University.
- [27] Mark Boukes. (2019). Social network sites and acquiring current affairs knowledge: The impact of Twitter and Facebook usage on learning about the news. *Journal of Information Technology & Politics*, 16 (1): 36-51.

- [28] Mark H Moor. (2000). Managing for value: Organizational strategy in for-profit, nonprofit, and governmental organizations. *Nonprofit and Voluntary Sector Quarterly*, 29 (1): 183-204.
- [29] Mosley, Jennifer E, Jarpe, Meghan.(2019).How Structural Variations in Collaborative Governance Networks Influence Advocacy Involvement and Outcomes. *Public administration review* 79(5):629-640.
- [30] Norris P. (2001), *Digital Divide: Civic Engagement, Information Poverty, and the Internet Worldwide*. Cambridge University Press 79 (2): 479-481.
- [31] O'Flynn J (2007). From New Public Management to Public Value: paradigmatic Change and Managerial Implication, *The Australian Journal of Public Administration*, 66 (3): 353-366.
- [32] Peter Raeymaeckers, Caroline Vermeiren,Charlotte Noe'l,Stijn Van Puyvelde,Jurgen Willems.(2017). The Governance of Public–Nonprofit Service Networks: A Comparison Between Three Types of Governance Roles. *Voluntas* 31(5)1-20.
- [33] Punam Bedi, Chhavi Sharma. (2016). Community detection in social networks. *Data Mining and Knowledge Discovery* 6 (3):115.
- [34] Robert Merton. (1938). Social Structure and Anomie. *American Sociological Review* 3: 678.
- [35] Rogers, E. M. (2003). *Diffusion of Innovation* (5th). New York: Free Press.
- [36] Stéphanie Dameron, Christophe Torset. (2014). The Discursive Construction of Strategists' Subjectivities: Towards a Paradox Lens on Strategy. *Journal of Management Studies* 51 (2): 304.
- [37] Stohl, C., Stohl, M., & Leonardi, P. M. (2016). Managing opacity: Information visibility and the paradox of transparency in the digital age. *International Journal of Communication* 10 (1): 123-137.
- [38] Sytch, Maxim, Tatarynowicz, Adam. (2014). Exploring the Locus of Invention: The Dynamics of Network Communities and Firms' Invention Productivity, *Academy of Management journal* 57 (1): 249-279.
- [39] Thomas A, Bryer. (2007). Toward a Relevant Agenda for a Responsive Public Administration. *Journal of Public Administration Research and Theory* 17 (3): 479-500.
- [40] Umor Sarimah,Zakaria, ,Sulaiman,Noor Adwa.(2020).Effectiveness of Follow-Up on Performance Auditing Issues in Practice: A Governance Network Perspective,*Asian Journal of Accounting Perspectives* 13(1):1-25.
- [41] Vindaya Senadheera, Matthew Warren & Shona Leitch. (2017). Social media as an information system: improving the technological agility. *Enterprise Information Systems*11 (4): 512-533.
- [42] Volker Stocker, Georgios Smarag dakis, William Lehr, Steven Bauer. (2017). The growing complexity of content delivery networks: Challenges and implications for the Internet ecosystem. *Telecommunications Policy* 41 (10): 1003-1016.
- [43] Xianmin Yang, Qin Qiu, Shengquan Yu and Hasan Tahir. (2014). Designing a trust evaluation model for open-knowledge communities. *British Journal of Educational Technology* 45: 880-901.
- [44] Xue Lin, Christabel Man-Fong Ho, Geoffrey Qiping Shen. (2018).For the balance of stakeholders' power and responsibility: A collaborative framework for implementing social responsibility issues in construction projects. *Management decision* 56(3):550-569.
- [45] Yang Li. (2018). Value, Interest, Discourse and Institution: The Study on Structural Strain Environmental Group Events. East China University of Political Science and Law, Master degree thesis.
- [46] Yefeng Ruan, Arjan Durrezi. (2016). A survey of trust management systems for online social communities – Trust modeling, trust inference and attacks. *Knowledge-Based Systems* 106 (15): 150-163.
- [47] Yijia Jing, Yefei Hu. (2017). From Service Contracting to Collaboration: Evolution of Government-nonprofit Relations. *Public Administration and Development* 37 (3): 191-202.

- [48] Yuqing Ren, F. Maxwell Harper, Sara Drenner, Loren Terveen, Sara Kiesler, John Riedl, Robert E. Kraut. (2012). Building Member Attachment in Online Communities: Applying Theories of Group Identity and Interpersonal Bonds. *MIS Quarterly* 36 (3). 841-864.