The Logic of Public Knowledge Formation in Online Public Affairs Discussions (Postprint)

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Abstract

[Purpose / Significance] This study explores the knowledge activities and knowledge processes in online public affairs discussions, and clarifies the underlying logic of public knowledge formation. On the one hand, this serves as a foundation for understanding the nature of public affairs discussions, evaluating their effectiveness, and supporting management decision-making; on the other hand, it represents a valuable exploration of knowledge production and sharing practices in cyberspace. [Method / Process] By identifying the types of knowledge and their constituent elements in online public affairs discussions, and integrating real-world examples from internet forum discussions, this paper analyzes the knowledge processes and extracts a logical model of public knowledge formation. [Result / Conclusion] Through empirical examples, the model is verified to possess certain explanatory power for online public affairs discussion practices, and the characteristics of public knowledge formation as well as the obstacles to consensus-building in practice are discussed, thereby supporting knowledge management in online public affairs discussions.

Full Text

The Logic of Public Knowledge Formation in Online Public Affairs Discussion

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Abstract

[Purpose/Significance] Public affairs discussion represents a specialized activity of knowledge generation and sharing. The Internet and information technologies have transformed the modes of knowledge production and dissemination while simultaneously advancing the development of online public affairs discussion. Understanding the logic underlying public knowledge formation in such

discussions not only provides a foundation for grasping their essence, evaluating their effectiveness, and supporting management decision-making, but also constitutes a valuable exploration of knowledge production and sharing practices in cyberspace. This paper aims to investigate the logic of public knowledge formation within online public affairs discussions.

[**Method/Process**] By first clarifying the types of knowledge and their constituent elements in online public affairs discussions, and then analyzing the knowledge flow through concrete examples from Internet forums, this study extracts a logical model of public knowledge formation.

[**Result/Conclusion**] The model demonstrates explanatory power for online public affairs discussion practices through case validation. The paper further examines the characteristics of public knowledge formation and the obstacles to achieving consensus in practice, thereby supporting knowledge management in online public affairs discussions.

Keywords: online discussion; public affairs; social common agreement; individual knowledge; public knowledge; knowledge process

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1 Introduction

As governance becomes increasingly pluralistic, public participation in public affairs discussion has emerged as a crucial mechanism for developing democratic consultation, fostering cooperation between government and citizens, and enhancing the democratization and scientific rigor of policy-making. Jürgen Habermas's concept of the public sphere essentially denotes a space where citizens can freely express opinions, debate, and articulate their needs and demands [1]. A key measure of whether a civil society functions effectively is the existence of a genuine public sphere [2]. The development of information technology and the Internet has positioned cyberspace as a vital arena for public affairs discussion. Scholars have affirmed the existence of a public sphere in networked environments, arguing that it represents a new social formation characterized by online social groups as its subjects, cyberspace as its domain, and networked dialogue as its democratic mechanism [3]. This networked public sphere creates opportunities for online public affairs discussion, enabling stakeholders to form specific online communities and engage in deliberations via Internet forums, microblogs, and other social media platforms or online consultation systems. Through exchange and interaction, they aim to reach consensus, formulate optimal solutions, and thereby supervise and influence decision-making by governmental and administrative bodies.

However, the anonymity, openness, and low barriers to entry that define the networked public sphere, while fostering a suitable atmosphere for debate and

facilitating public opinion formation, also introduce numerous disruptive factors. Discussion processes tend to become temporally and spatially fragmented, with varying quality that often makes it difficult to determine whether ideal outcomes have been achieved. A critical criterion for evaluating the effectiveness of online public affairs discussion is whether it achieves convergence of opinions and consensus for action—that is, whether public knowledge has been formed. The prerequisite for determining whether public knowledge has formed lies in clarifying the logic of public knowledge formation within the discussion process.

Knowledge activities in online public affairs discussion exhibit general characteristics of knowledge production and sharing in cyberspace. Information technology has transformed information processing and dissemination methods, thereby altering knowledge generation patterns [4]. The "digital encoding" of knowledge also signifies revolutionary changes in how knowledge is acquired, stored, processed, distributed, and displayed [5]. The open and interactive nature of networks provides a convenient, low-threshold media environment for knowledge production in online public affairs discussions and serves as "an important pathway for disseminating knowledge to society, distributing cognition to others, and acquiring needed knowledge" [5]. Meanwhile, information and communication technologies enable cross-temporal and cross-spatial distribution in online discussions, transforming participants' physical "absence" into temporal "presence" [6] and expanding channels for information and knowledge dissemination across both dimensions. These developments further enable knowledge cooperation and collaboration among stakeholders from different geographic regions and professional fields. For instance, virtual communities based on shared interests and goals offer individuals entirely new modes of knowledge exchange [7].

Nevertheless, observational studies of discussion practices reveal that knowledge production, dissemination, and sharing in online public affairs discussions possess distinctive features beyond the commonalities of various knowledge activities in the Internet era. These special characteristics manifest in three primary aspects: First, stakeholders in public affairs participate in discussions and interactions based on their own levels of understanding and interests, with their knowledge production motivations influenced by real-world public affairs interests. Second, the prerequisite for knowledge sharing in public affairs discussions is that individual knowledge must engage in social common agreement to obtain evaluation and recognition from other participants, as "the process of knowledge sharing is also a process of providing feedback and even critique on knowledge content" [8]. Social common agreement represents one of the principles that private knowledge must follow during its "socialization" process; for individual knowledge to be incorporated into the public knowledge system, it must participate in social common agreement (or endorsement competition) to determine whether it can be accepted by society and what position it holds within the public knowledge system [9]. The social nature of public affairs makes this mechanism particularly crucial. Third, information published by the public in online discussions contains substantial knowledge lacking in public affairs management entities [10], giving knowledge production and sharing activities

a directional influence on decision-making by public affairs management bodies. Research on knowledge formation in online public affairs discussions should therefore attend to both the particularities of these knowledge activities—to deepen understanding of the essence and characteristics of public affairs discussions occurring in the networked public sphere—and their general features, as a practical verification of how knowledge production, dissemination, and sharing methods have transformed in the Internet era.

Consequently, this paper aims to explore the logic of public knowledge formation during online public affairs discussions within the networked public sphere—a promising new social formation. By examining discussion examples from Internet forums, this study analyzes knowledge types and their elements, consensus formation processes, and underlying logic to discover the formation logic and characteristic patterns of public knowledge in online public affairs discussions. This provides a foundation for evaluating public affairs discussions in the networked public sphere and for knowledge management in cyberspace.

2 Knowledge Types in Online Public Affairs Discussion

Exploring knowledge formation in online public affairs discussion necessitates first clarifying relevant knowledge concepts and definitions within this context. Knowledge represents humanity's achievements in understanding nature and transforming society. The concept of knowledge has been an eternal proposition explored by numerous scholars throughout history, and no unified, definitive definition has yet emerged. Scholars from different fields hold varying perspectives. For instance, philosopher Plato, in examining the essence of knowledge, regarded it as perception, judgment of truth and falsehood, and such judgment accompanied by reasonable explanation [11]; renowned information scientist B.C. Brooks considered knowledge as structures connected by relationships [12]; and management guru Peter Drucker viewed knowledge as information capable of changing certain people or things [13].

In the context of public affairs discussion, knowledge definitions are closely related to the nature of the discussion and participant characteristics, involving both participants' individual knowledge and the public knowledge that ultimately measures discussion effectiveness. Individual knowledge refers to knowledge possessed by individuals, while public knowledge is shared and commonly owned by the general public, with public knowledge centers dedicated to collecting, organizing, storing, providing, and exchanging knowledge for the public [14]. Individual knowledge constitutes a continuously evolving, temporal knowledge set that exhibits heterogeneity or similarity across individuals due to differences or parallels in life experiences, living environments, and personal qualities. Public knowledge forms a knowledge set contributed by all members of society, available for sharing and learning by all; individual knowledge becomes incorporated into the public knowledge system through participation in social common agreement [9]. J. Clinger has explored the importance of public affairs principles such as the publicity principle and transparency presumption in the process

from individual citizen participation to public knowledge formation [15].

Within the public affairs discussion context, this paper defines individual knowledge as viewpoints, ideas, and proposals put forward by participants through reflection, and public knowledge as convergent opinions and action consensus formed and publicly shared by participants following established rules. During online public affairs discussions, cyberspace functions as a virtual "public knowledge center," providing technical platforms and organizational management support for the formation and management of public knowledge.

Clarifying knowledge types in online public affairs discussion provides the foundation for exploring public knowledge formation logic. From the participant perspective, knowledge types primarily divide into individual knowledge and public knowledge; from the perspective of knowledge existence forms, they include explicit and tacit knowledge, with mutual transformation possible between different types. I. Nonaka and H. Takeuchi's knowledge conversion model posits that tacit-explicit knowledge transformation involves four processes: socialization, externalization, internalization, and combination [16], as shown in the inner box of Figure 1 [Figure 1: see original paper]. Based on this, this paper analyzes four knowledge conversion modes in public participation: (1) transformation from individual tacit knowledge to tacit knowledge through participant interaction; (2) transformation from individual tacit knowledge to explicit knowledge through viewpoint expression; (3) transformation from individual explicit knowledge to public explicit knowledge through consensus formation; and (4) transformation from public explicit knowledge to individual tacit knowledge through participant learning. Online public affairs discussions can often employ technical means—such as constructing online discussion system platforms and providing visual discussion formats—to facilitate the conversion from individual tacit knowledge to explicit knowledge and from individual knowledge to public knowledge. Understanding the conversion mechanism from individual to public knowledge constitutes the core of comprehending public knowledge formation logic in online public affairs discussions, while analyzing knowledge elements reveals the key to knowledge conversion and interaction.

Knowledge elements comprise constituent elements and influencing elements. Constituent elements—the primary components contained within knowledge—include experiential, belief, and informational components [17]. In online public affairs discussions, the experiential component relates to personal life experiences, living environments, and personal qualities, often requiring long-term accumulation and transformation, yet exerting significant influence on participants' viewpoints and proposals. The belief component can stimulate participants' desire and enthusiasm for thinking and expression, promoting active participation of individual knowledge in social common agreement for incorporation into public knowledge. The informational component occupies an increasingly large share of individual knowledge in the information age, with cyberspace providing participants with diverse information access channels that facilitate the growth and accumulation of individual knowledge.

Influencing elements primarily include knowledge expression methods, carrier forms, and discussion contexts. In online public affairs discussions, knowledge expression methods may involve viewpoints, propositions, and proposals carried by discussion-generated paragraphs or sentences, or visual presentations supported by technical means such as knowledge maps. Knowledge carrier forms include participants' brains, text and symbols expressing viewpoints, physical materials like paper and disks storing discussion records, and system platforms supporting discussions. The knowledge context constitutes a complex system formed jointly by discussion topics, participants, and discussion environments. Clarifying these constituent and influencing elements helps grasp factors affecting knowledge flow in online public affairs discussions and thereby master key activities in the conversion from individual to public knowledge.

3 Case Analysis of Knowledge Flow in Online Public Affairs Discussion

3.1 Case Selection

Public affairs discussion differs from traditional organizational group decision-making processes with clearly defined member structures and formal decision-making procedures. Online public affairs discussion exhibits characteristics such as complex real-world backgrounds of participants, diverse discussion topics, and dispersed, non-convergent processes. The uncertainty and cross-temporal-spatial distribution of discussion processes increase the difficulty of researching and analyzing knowledge flow in discussion activities. Current domestic online public affairs discussion practices fall into two categories: (1) online consultation discussion system platforms constructed for research purposes, such as the "Group Discussion Support System" developed by the Management Information Systems Research Center at Shanghai Jiao Tong University [18]; and (2) public affairs discussion practices in Internet public forums.

Since relevant online consultation system platforms have not yet been deployed on a large scale, this paper selects Internet public forum practices for analysis. The selection is based on two reasons: First, Internet public forums have matured considerably, with active public affairs discussions in excellent forums such as "Cat Eye Community" and "People's Daily Strong Country Community"; second, forum participants are universal, discussion topics are rich and diverse, and discussion processes better reflect the essence and characteristics of online public affairs discussion. Overall, Internet forums possess the three constituent elements of the networked public sphere—subjects, domain, and democratic mechanism—making them representative online public affairs discussion practices.

This study selected the well-known current affairs forum "Cat Eye Community," using the search term "opening residential community roads" to obtain three discussion threads from February 22-24, 2016, which attracted 2,507 viewers and 27 participants in in-depth discussion and interaction. Considering that

Internet public forum discussions often suffer from quality issues, divergent processes, and unreliable outcomes, this paper extracted clear, structurally coherent discussion fragments from the three threads to analyze the knowledge flow and logic in the online public affairs discussion on "whether opening residential community roads can alleviate traffic congestion." The extracted discussion excerpts are as follows:

(1) L: Removing community walls and opening community roads does not increase the overall road area. The cars remain the same; congestion on main roads will not improve just because vehicles can turn into community roads at any time. The only effect will be to create chaos on community roads that previously had no traffic problems.

(2) S: I have two viewpoints. First, ring roads may have counterproductive effects on traffic congestion pressure. Second, China's road congestion is related to closed residential communities. During peak hours, all vehicles concentrate on main roads, while closed communities effectively block the capillaries of the transportation network. Objectively speaking, more available roads would help alleviate traffic pressure, but community safety concerns would also become prominent.

(3) L: If urban planning separates functions, with residential areas on the periphery and functional zones in the city center, then no matter how smooth the community capillaries are, everything will eventually clog up when converging onto main roads. This has nothing to do with capillaries but rather reflects a lack of foresight in urban and road planning. Removing community walls will only increase the number of nodes between community roads and main roads, thereby worsening congestion.

(4) S: Regarding opening community roads, I'm more concerned about property rights issues of road land within already-built communities. This should be part of the shared allocation for small business owners, and allowing external vehicles to use them would be inappropriate as it involves infringement.

(5) L: It's not only illegal and infringing, but also practically unfeasible in reality. Since community roads are built to varying standards that don't meet municipal road requirements, the question of how government would transform and utilize them remains problematic.

(6) L: For huge communities, removing walls would have some effect.

(7) N: In new planning, reducing community size and building more municipal roads for division is reasonable; for already-built communities, it's reasonable for government to build new municipal roads through certain channels; but demanding all communities nationwide to remove walls is unreasonable. Moreover, larger communities are mostly in urban-rural fringe areas, and from a traffic solution perspective, wall removal is certainly ineffective.

(8) L: Urban-rural fringe areas are also congested.

(9) N: Traffic diversion can be implemented. Currently, traffic volume concentrates on main roads. If communities under elevated roads can divert traffic to other sections, main road traffic would decrease.

(10) L: The issue isn't opening community roads but removing community walls, which means adding n nodes. With unchanged traffic volume, there would be many more turning intersections, more lane-changing vehicles, and more cutting-in from the side, making road conditions only more complicated.

(11) N: As long as vehicles are diverted and main road speeds increase, other problems cease to be problems.

(12) L: The problem lies in that building municipal roads around ramps is correct, but removing community walls is wrong. These are completely different matters. Removing walls not only fails to solve traffic problems but also creates many other issues.

3.2 Knowledge Flow Analysis of the Case

Knowledge flow represents the process by which knowledge creates value through accumulation, sharing, and exchange across various knowledge nodes. H. Lai and T. Chu identify activities including stimulation, generation, modeling, storage, transfer, application, and evaluation in this process [19], while A. Anderson includes sharing, creation, definition, collection, revision, organization, and application [20]. The knowledge flow in public affairs discussion encompasses not only universally significant activities like generation, sharing, organization, and application, but also special activities such as proposal, assessment, revision, and interaction in the discussion process.

The knowledge flow in this discussion case is analyzed in Figure 2 [Figure 2: see original paper]. In this process, the main participants were L, S, and N, with participant L as the initiator playing a primary role in advancing the knowledge flow. Key discussion behaviors included viewpoint expression, proposal, proposal evaluation, proposal revision, and proposal integration. Corresponding knowledge activities included knowledge generation, acquisition, evaluation, revision, integration, and sharing. The specific flow was: (1) L and S engaged in a series of interactions, expressing viewpoints and evaluating each other's proposals, involving knowledge generation, acquisition, and evaluation activities; (2) Since S did not accept L's viewpoints twice, although S did not propose explicit revisions, L still revised their own viewpoints, engaging in knowledge revision activities. To continue expressing viewpoints and support subsequent discussion, L's behavior also implicitly involved knowledge integration and sharing; (3) Through knowledge sharing activities, participant N joined and engaged in a series of discussions with L, but these only involved knowledge generation, acquisition, and evaluation, without forming a complete knowledge flow.

3.3 Summary of Knowledge Flow in Online Public Affairs Discussion

Based on the case analysis and Internet forum practices, the ideal knowledge flow in online public affairs discussion should be as shown in Figure 3 [Figure 3: see original paper]. Centered on core discussion behaviors of proposal, evaluation, revision, and consensus, the knowledge flow should include series of knowledge activities such as stimulation, generation, acquisition, evaluation, revision, integration, sharing, application, and innovation. Stimulation refers to motivating participants to actively engage in discussion and express viewpoints through event triggers or interest guidance. Generation involves participants proposing viewpoints, opinions, and suggestions through reflection—making individual knowledge explicit. Acquisition means participants can see and understand others' viewpoints while expressing their own. Evaluation entails participants assessing different proposals to determine whether to incorporate them into optimal solutions. Revision involves modifying unacceptable proposals based on other participants' suggestions to gain acceptance. Integration refers to incorporating accepted or revised proposals into optimal solutions to form consensus. Sharing means providing consensus reached by participants to all discussion members for common ownership. Application involves using acquired and shared knowledge to solve original public affairs problems. Innovation refers to generating new knowledge based on the above activities.

Compared with the ideal knowledge flow, the case discussion lacked integrity and continuity in knowledge activities, thus failing to achieve ideal discussion outcomes. This manifested primarily in the untimely proposal of revision suggestions, subsequently affecting proposal revision and final consensus formation. Case analysis also reveals that in online public affairs discussion knowledge flows, knowledge activities lack clear behavioral boundaries or time nodes. Different combinations of knowledge activities around core discussion behaviors constitute orderly yet differently deep knowledge flows. Figure 3 shows that from inner to outer circles represents a process of increasingly refined discussion activities. The inner circle of topic stimulation and discussion interaction constitutes the main part of online public affairs discussion. The middle circle of proposal, evaluation, revision, and consensus represents core discussion behaviors. The outer circle displays the knowledge flow composed of series of knowledge activities surrounding these core behaviors.

Core discussion behaviors determine the complexity of the knowledge flow. If a proposal is accepted as part of the optimal solution and consensus is reached after evaluation by other participants, the knowledge flow will not involve knowledge revision activities. If the process from proposal, evaluation, and revision to consensus formation is cyclical, it creates a complex knowledge flow encompassing all activities, with interfering factors affecting consensus formation at different stages. Additionally, revision behavior emerges as key to determining whether consensus can be achieved, representing an important manifestation of participating in social common agreement during the development from individual to public knowledge.

4 Logic Model of Public Knowledge Formation in Online Public Affairs Discussion

4.1 The Logic Model

The essence of public knowledge formation logic is the abstract transformation between different knowledge types, with concrete manifestations being the interaction and connection of knowledge activities within knowledge flows, and determinative factors being participants' core discussion behaviors. Synthesizing existing research and observations of relevant discussion practices reveals that public affairs discussions share common discussion decision-making and consensus formation logic models across different topics and contexts. J. Chucarroll and S. Carberry's "propose-evaluate-modify" cyclic behavior model for collaborative activity session texts posits that in multi-agent collaborative activities, agents form optimal solutions through continuous cycles of proposal, evaluation, and modification behaviors [21-22]. Since online public affairs discussions can retain discussion session texts and other data traces, this "propose-evaluate-modify" cyclic concept can be introduced into the consensus formation process. Accordingly, this paper stages the core discussion behaviors in online public affairs discussions based on practical characteristics and networked public sphere environments, presenting the cyclic pattern of core discussion behaviors through flowcharts, and ultimately summarizing the public knowledge formation logic model as shown in Figure 4 [Figure 4: see original paper].

From the perspective of the networked public sphere as the discussion carrier, online public affairs discussions proceed as follows: After certain triggering mechanisms, participants propose viewpoints or suggestions aligned with their own or group interests based on their benefit choices or cognitive states, achieving the transformation from tacit to explicit individual knowledge. To incorporate individual knowledge (proposals, etc.) into public knowledge, participants engage in social common agreement, where other participants evaluate their viewpoints and proposals, choosing to "accept" or "not accept" them. Accepting a proposal incorporates it into public knowledge as part of the optimal solution; not accepting it leads to revision suggestions and subsequent evaluation by other participants. This process repeats continuously until the proposal is accepted and consensus is reached, completing the transformation from individual to public knowledge. Understanding the logic of public knowledge formation in online public affairs discussion hinges on grasping "one cycle, two transformations, and three mechanisms." One cycle refers to the discussion behavior cycle in networked dialogue; two transformations refer to achieving the conversion of individual tacit knowledge to explicit knowledge and individual knowledge to public knowledge among participants; three mechanisms refer to the discussion triggering mechanism, social common agreement mechanism, and consensus formation mechanism, all supported by information technology in cyberspace.

4.2 Model Validation

To verify the explanatory power of the above public knowledge formation logic model for online public affairs discussion practice, another discussion case from the "Cat Eye Community" forum on "whether highways should be toll-free during holidays" was selected for analysis [21]. The discussion logic flow is shown in Figure 5 [Figure 5: see original paper]. Participants L, M, and Z engaged in six rounds of interaction around this theme. During the interaction, participants proposed their own viewpoints or suggestions and evaluated others' proposals, choosing whether to accept them. Participant L, as the initiator, effectively promoted discussion progress by proposing revisions after evaluation. Participant M did not adopt L's revision suggestions, causing their interaction to cease. Participant Z accepted L's proposal and prompted L to self-revise the proposal, ultimately facilitating optimal solution formation and consensus between them. This analysis shows that the discussion topic was closely related to participants' real lives and personal interests, triggering active expression of viewpoints and proposals and achieving the transformation from individual tacit to explicit knowledge. During the social common agreement stage, participants engaged in evaluation and revision through multiple interaction rounds, choosing whether to accept proposals and revision suggestions. Finally, consensus formation achieved the transformation from individual to public knowledge among some participants.

The validation case demonstrates that the proposed public knowledge formation logic model possesses certain explanatory power for online public affairs discussion practice. However, it is noteworthy that despite this shared logic model, actual discussions exhibit diversity and uncertainty in behavioral combinations of "proposal," "evaluation," and "revision," affecting final discussion outcomes and consensus formation. Throughout the discussion process, participants' real-world backgrounds, capability systems, psychological characteristics, and behavioral personalities all significantly influence discussion flows. Overall, the public knowledge formation logic model in online public affairs discussion presents characteristics of shared overall logic alongside uncertain actual behaviors.

5 Conclusion and Discussion

This paper explores the logic of public knowledge formation in online public affairs discussion through Internet forum case analysis. It first clarifies knowledge types and elements in online public affairs discussion, then analyzes and presents the knowledge flow, ultimately identifying a public knowledge formation logic model emphasizing "one cycle, two transformations, and three mechanisms." Case analysis reveals that this logic model possesses explanatory power for online public affairs discussion practice, with its advantage lying in extracting and grasping participants' core discussion behaviors and staging knowledge activities according to practical characteristics. However, the model represents an ideal type; facing complex online discussion practices, particularly large-scale

public participation scenarios, its completeness and explanatory power require further verification.

Existing scholarship has addressed public knowledge formation and characteristics, such as Wu Jianguo's argument that individuals contribute knowledge to the public system due to society's reward and incentive mechanisms [9], and Lei Jing et al.'s analysis of public goods characteristics of public knowledge in virtual communities [23]. From the perspective of online public affairs discussion, this study finds that public knowledge formation exhibits the following features: (1) The explicit display of individual knowledge in cyberspace through event triggers or interest guidance constitutes the foundation of public knowledge formation; (2) Individual knowledge can only be incorporated into public knowledge through participation in social common agreement, with participants' evaluation and revision suggestions during interaction being key to consensus formation; (3) Individual knowledge exhibits differences due to participants' life experiences, living environments, and personal qualities, and its transformation to public knowledge is closely related to discussion behaviors—observational studies show that discussion behaviors emphasizing debate over listening hinder consensus formation; (4) Uncertainty in participants' core discussion behaviors leads to diverse combinations of knowledge activities in the knowledge flow, with richer knowledge activities facilitating deeper discussion and consensus formation but also increasing complexity.

Overall, the zero-barrier, highly interactive, and decentralized characteristics of the networked public sphere endow knowledge formation in online public affairs discussion with cross-temporal-spatial distribution, providing superior communication pathways for sustained discussion, effective logical cycling, and consensus formation compared to physical settings. However, online public affairs discussion practices often fail to achieve ideal outcomes, with public knowledge formation facing numerous obstacles. Unlike the "one-to-many" communication in physical settings, the "many-to-many" communication in networked environments [24] makes discussion order difficult to maintain. Anonymous and unbounded participation increases discussion enthusiasm while reducing behavioral constraints, thereby affecting discussion quality. In large-scale public participation scenarios, explosive and diverse information presentation increases derivative topics and discussion divergence, making opinion convergence difficult to achieve. The anonymity, openness, and low barriers of the networked public sphere provide favorable conditions for online public affairs discussion while harboring interfering factors that hinder consensus formation. Employing technical means and institutional safeguards—such as social computing technologies, human-computer collaboration systems, and moderator coordination mechanisms—represents effective measures for helping the public participate in orderly and consultative discussions [25-26].

Given that online public affairs discussion practices remain underdeveloped, the Internet forum cases selected in this paper suffer from limited representativeness. Moreover, traditional and online forms of public affairs discussion neces-

sarily differ, and their public knowledge formation logics likely exhibit certain differences. Future research should therefore: (1) Compare differences between traditional and online public affairs discussion and their respective public knowledge formation logics; and (2) Closely monitor developments in the networked public sphere and online public affairs discussion practices to continuously revise and improve the public knowledge formation logic model for online public affairs discussion.

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Note: Figure translations are in progress. See original paper for figures.