

# The multiple mechanisms of digital government empowering whole-process people's democracy in border ethnic areas: An empirical analysis based on Yunnan's 'digital and smart people's congress'

Peng Yili \*

*School of Politics and Public Administration, Yunnan Minzu University, Kunming, China.*

International Journal of Science and Research Archive, 2026, 20(01), 676–684

Publication history: Received on 11 June 2026; revised on 17 July 2026; accepted on 20 July 2026

Article DOI: <https://doi.org/10.30574/ijrsra.2026.20.1.1499>

## Abstract

Whole-process people's democracy is an essential requirement of Chinese-style modernization. Border ethnic areas have special geographical conditions and complex social structures, where the costs for the masses to express their interests are often high, relevant information enters the decision-making process not in a timely manner, and various opinions frequently appear fragmented and scattered. This paper takes Yunnan Province's "Digital and Smart People's Congress" as the object of analysis to observe whether digital government can support the effective operation of whole-process people's democracy in the border environment. Existing practices indicate that relevant explorations do not simply migrate existing work online but instead make corresponding adjustments around such links as public opinion collection, handling feedback, capacity cultivation, and institutional operation, thereby gradually improving the actual conditions for democratic participation in border areas. At the same time, problems such as insufficient digital access, slow grassroots adaptation, and limited algorithm application still exist. Therefore, it is necessary to continue making efforts in enhancing digital inclusiveness, promoting the convergence of government data with people's congress procedures, and strengthening online-offline synergy, so that technological application always revolves around democratic values and institutional advantages are effectively transformed into governance outcomes that the masses can perceive.

**Keywords:** Whole-process people's democracy; Digital government; Digital and Smart People's Congress; Border areas

## 1. Introduction

Whole-process people's democracy is an essential requirement of Chinese-style modernization. For border areas with complex geographical environments, intermingled ethnic groups, and relatively weak development foundations, it is not easy for traditional democratic mechanisms to truly operate at the grassroots level: the cost of participation for the masses is relatively high, information transmission between upper and lower levels is not timely enough, and the degree of rights realization is not balanced across regions. Under such circumstances, drawing on information technology with cross-regional connectivity capabilities has become a direction worthy of attention for democratic practice in border areas. With the continuous advancement of national governance digitalization, digital government construction is no longer just a matter of improving administrative efficiency; it has also begun to affect the ways of democratic participation—data flows among decision-making, implementation, and feedback, to some extent compensating for the barriers caused by geographical distance. In recent years, technologies such as big data, cloud computing, artificial intelligence, and blockchain have developed rapidly. [11]The intelligent economy, as a high-level economic form driven by artificial intelligence, not only provides new momentum for national economic growth but also concerns China's initiative in international technological competition. [1]Yunnan Province's "Digital and Smart People's Congress"

\* Corresponding author: Peng Yili

emerged as a local exploration against this background. It readjusts the way the representative body connects with the masses and also reflects new changes in the exercise of power and the expression of public opinion in border governance. This paper intends to analyze this practice from the perspective of technological governance, sort out the main mechanisms through which digital government supports whole-process people's democracy in border areas, and provide some theoretical reference for understanding the modernization of border governance.

## **2. Theoretical Foundations**

### **2.1. Digital Governance Theory: Digital Technology Promotes the Adjustment and Extension of Governance Logic**

Against the background of rapid information technology development and continuous changes in government governance methods, digital governance theory emerged. Its focus is not merely on the application of technical means in administrative management, but on how digital technology, after entering the field of public governance, changes the information interaction relationships among government, society, and the public. Early e-government mainly emphasized the online transformation of government business processes. Digital governance differs from this in that it places greater emphasis on the integration and utilization of data resources and the reconnection of relationships among governance subjects. In essence, it explores more effective ways of handling public affairs under digital conditions.

Factors such as natural conditions, population distribution, and transportation conditions mean that when participating in public affairs, some people in border areas still face the dual predicament of long distances and limited channels of expression. The limitations of traditional governance methods under such practical constraints are self-evident, and the practical significance of this theory in the governance context of border ethnic areas is therefore more prominent. Digital platforms can break through the barriers caused by geographical space, providing people scattered across various regions with more convenient channels for expressing opinions. Governance subjects can also use this to more comprehensively grasp the specific needs of different regions and different groups. Especially in border ethnic areas, where development levels among different ethnic groups and regions are uneven, the data analysis capabilities provided by digital governance help to avoid the errors of homogenized governance measures and make public policies more responsive to grassroots realities. Of course, the superposition of technological inputs does not automatically equal the improvement of governance effectiveness. Digital governance ultimately depends on specific social environments and institutional conditions to take effect. Once the usage habits, digital capabilities, and local social characteristics of the masses are ignored, digital platforms may instead erect new barriers to participation. For border ethnic areas, the focus of digital governance is not on the pure pursuit of technological advancement, but on fully accommodating social differences in the process of technological application, so that digital tools truly serve the substantial improvement of mass participation and governance effectiveness.

### **2.2. Deliberative Democracy Theory: The Democratic Practice Process in the Interaction of Multiple Subjects**

Deliberative democracy theory emphasizes that the governance of public affairs cannot rely solely on administrative subjects making unilateral judgments; instead, different social subjects need to seek consensus on the basis of full expression through continuous communication, opinion exchange, and interest coordination. Traditional democratic theory focuses singly on procedures and outcomes; this theory breaks through this by placing greater emphasis on the quality of participation in the democratic process—that is, whether the masses have opportunities to express their own interests, whether different opinions can enter the public decision-making process, and whether the final governance plan has a sufficient social foundation.

The development of digital technology has further expanded the practical forms of deliberative democracy. In the past, grassroots consultation was easily limited by time, location, and scope of participation. Some people, due to long distances or insufficient information access, found it difficult to participate in relevant discussions in a timely manner. Through systematic recording, the links among opinion collection, handling tracking, and result feedback are connected, making it more convenient for public opinions to enter the governance process. The emergence of digital platforms, as exemplified by the practice of Yunnan's "Digital and Smart People's Congress," reflects this change—digital technology does not replace traditional democratic consultation but expands the space for mass participation on the basis of the existing institutional framework, making democratic interaction more continuous and stable. However, it should be noted that digital consultation cannot completely replace face-to-face communication. Many grassroots affairs still rely on long-formed social connections and trust foundations. Especially in border ethnic areas, issues involving land relations, ethnic customs, and community internal coordination contain complex factors that cannot be fully understood through online platforms alone. The development of digital consultation should be based on the combination of online

and offline approaches, using technological means to improve the efficiency of information flow while preserving the emotional connections and consultative advantages of face-to-face communication in grassroots society.

### **2.3. Whole-Process People's Democracy Theory: The Value Foundation for the Operation of Digital Government**

Whole-process people's democracy, as an important theoretical achievement in the development of socialist democratic politics with Chinese characteristics, emphasizes that people's participation is not limited to a certain stage but runs through the entire process of national governance and social governance. This theory breaks through the traditional understanding that equates democracy with electoral activities, paying more attention to the subject role of the masses in different links such as decision-making, implementation, supervision, and feedback, reflecting the unity between democratic forms and governance effects. From the connotation of whole-process people's democracy, democracy is not only reflected in whether the masses have access to participation channels, but more importantly, whether this participation can truly influence the governance process and produce actual effects. If the issues raised by the masses receive no response, or if participation is disconnected from the final governance outcomes, the practical significance of democratic participation cannot be fully realized. Whole-process people's democracy emphasizes the effective connection among participation processes, institutional operation, and governance outcomes, so that the principal position of the people can be manifested through concrete governance practices.

Digital government construction provides new conditions for realizing whole-process people's democracy. In the traditional governance environment, due to limitations in information dissemination speed and participation methods, mass participation in public affairs was often concentrated on specific times and issues. Digital platforms make opinion expression more routine and continuous, allowing the masses to participate in governance at more links. At the same time, government departments, with the help of digital systems, can more promptly understand grassroots conditions, thereby improving the accuracy of policy responses. For border ethnic areas, whole-process people's democracy has even more important practical value. Given the special geographical environment and regional development disparities, how to ensure equal participation of people from different areas in public affairs is an important issue that grassroots democracy building must face. Digital government, by reducing participation costs and expanding channels of expression, enables people who were previously limited by factors such as distance and information to more conveniently enter the institutionalized participation system, thereby promoting the transformation of democratic institutional advantages into governance effectiveness. However, the development of digital government must always be value-based on the people's needs, and cannot simply use technological efficiency as the yardstick. If digital platforms only focus on data accumulation and process management while neglecting the actual user experience of the masses, technological construction and democratic practice may become disconnected from each other. In promoting digital government construction in border ethnic areas, it is necessary to make reasonable use of digital technologies within the institutional framework, so that they truly become important supports for expanding mass participation and improving the operational mechanisms of democracy.

---

## **3. Theoretical Mechanisms of Digital Government Empowering Whole-Process People's Democracy in Border Ethnic Areas**

Theoretically, the introduction of digital technology into whole-process people's democracy is not a simple application of technology to existing institutions, but the formation of new operational modes within the institutional framework. Against the backdrop of continuous global digitalization and intelligentization, digital government has gradually evolved from the early "e-government" to a governance transformation that relies on digital technology while simultaneously adjusting technical conditions and organizational methods. [2] From the perspective of border ethnic areas, this change is particularly not to be understood as "moving online"; it also involves multiple aspects such as participation scope, operational efficiency, response precision, consultation depth, and value realization. Around policy arrangements such as the Digital China construction and the action plan for revitalizing border areas and enriching the people, how to enhance the development resilience and sharing level of border areas through more systematic digital supply remains an issue requiring further discussion.[4]

### **3.1. Breaking Through Spatiotemporal Barriers Supported by the Logic of Breadth and Efficiency**

Digitalization in border areas affects not only industrial adjustment and public service layout, but also directly relates to whether policy information can be delivered and whether public opinions can be transmitted. [4] A long-standing problem in the operation of local democracy is that geographical distance enlarges participation gaps. In the past, if the masses wanted to report their grievances to higher levels, they often had to travel long distances at considerable cost; moreover, their scattered residence meant that opinions were prone to attenuation and distortion during the reporting process. Digital government establishes more direct communication paths through online channels, alleviating this

spatial constraint to some extent. Platforms such as the "Digital and Smart People's Congress" extend the reach of the people's congress in contacting the masses to remote villages, so that even people at the peripheral ends can express their opinions in a timely manner without traveling to county towns. Correspondingly, democratic participation no longer relies mainly on fixed meetings and routine visits; representatives' performance of duties and the masses' appeals can be continuously connected through the platform, and the processing progress of related matters is easier to track, making the masses' perception of whether the democratic process "works" more evident.

### **3.2. Refinement of Ethnic Group Demands Guided by the Logic of Precision and Depth**

The social structure of border areas is complex, and the interests and demands of different ethnic groups and regions are not the same. Some issues are not conspicuous overall but are felt more strongly by specific groups. In the past, some methods of public opinion collection tended to focus more on the macro level, and the specific difficulties raised by minority groups and peripheral areas were easily overlooked. The significance of digital technology lies in helping governance subjects identify differentiated demands from large amounts of information. Through the sorting and analysis of relevant data, prominent problems in employment, education, healthcare, infrastructure, and other aspects of border masses can be seen more clearly, and some long-standing contradictions that have not received adequate responses can be more easily discovered. On this basis, democratic decision-making can take into account more specific and more marginal appeals while safeguarding overall interests. The mode of participation also changes accordingly. In the past, much participation remained at the level of general statements; now, when representatives and the masses discuss specific issues, they can combine historical cases and the latest information to conduct arguments, and supervision and suggestions can more easily target actual matters, so that the democratic process does not stop at following procedures and going through formalities.

### **3.3. Coupling of Procedural Democracy and Substantive Democracy Driven by Value Logic**

Whether the grassroots in border areas can truly operate whole-process people's democracy depends on whether procedures are standardized on the one hand, and whether the masses can obtain perceptible actual results on the other. Constrained by insufficient personnel and limited conditions, some procedural requirements at the border grassroots are sometimes difficult to implement in practice, and the masses' judgment of democratic effectiveness is consequently unstable. After the involvement of digital government, a notable change is the linking of the three links—"raising opinions, researching and handling, and feeding back results"—into a relatively complete operational chain. In Yunnan's "Digital and Smart People's Congress," after representatives' suggestions enter the system, the responsible units, handling progress, and feedback status are all relatively clear; the arbitrariness in implementation is thus constrained to a certain extent, and procedural requirements that were not intuitively observable gain verifiable bases. More importantly, many consultation results can be quickly transformed into specific services or policy adjustments. If issues raised through formal channels receive tangible responses, the masses' identification with the system will also become more solid.

---

## **4. Practical Mechanisms of Yunnan's "Digital and Smart People's Congress" Empowering Whole-Process People's Democracy**

During the advancement of digital government construction, the public's demands for government response speed and refinement are increasing, leading to the rapid proliferation of various government digital platforms. However, whether these platforms can function in the long term remains a practical issue. [5] In border ethnic areas, complex terrain, diverse social structures, and relatively weak information infrastructure have once constrained the extension of whole-process people's democracy to the grassroots. Yunnan's "Digital and Smart People's Congress" does not simply move the people's congress's existing business online, but attempts to reorganize the operation mode of democracy with digital technology. From existing practices, this adjustment is mainly reflected in four aspects: broadening communication channels, standardizing operational procedures, enhancing the capacity of participating subjects, and increasing the stability of institutional operation.

### **4.1. Channel Mediation: Building a Full-Spatiotemporal Public Opinion Perception and Collection Matrix**

In border areas with "high mountains, deep valleys, and sparse population," for representatives to go deep among the masses, they often have to overcome long travel distances and significant time costs. In the traditional way, contacting the masses usually relies on fixed locations and fixed times for visits and discussions. For border masses living in scattered settlements, this inevitably leads to untimely contact and incomplete coverage. Yunnan, relying on the mobile application of the "Digital and Smart People's Congress," is gradually addressing the previous shortcomings of untimely and insufficient contact with the masses. After the sequential introduction of relevant measures, especially after the implementation of practices such as "representatives scanning QR codes to listen to public opinions," the masses no

longer need to specifically wait for fixed visit times, nor do they have to wait until representatives come down to the villages. As long as they encounter practical problems, they can more conveniently enter them into the system. For the masses of all ethnic groups in border areas, opinions scattered in various places no longer have to rely entirely on layer-by-layer upward reporting; they can also enter the people's congress's work perspective more quickly, reducing delays caused by intermediate links. Compared with the past, the contact channels are clearly more direct, the timeliness of mass participation in local governance is enhanced, and fairness in opportunities is correspondingly improved.

#### **4.2. Procedural Closure: Data Flow-Driven Full-Chain Democratic Operation Logic**

Whole-process people's democracy emphasizes not any single link, but the ability to connect the entire process from opinion proposal, research and handling, to result feedback. At the border grassroots level, without effective tool support, democratic operation can easily result in "collecting a lot upfront but implementing little afterward." A prominent feature of Yunnan's "Digital and Smart People's Congress" is its use of data to connect each link into a relatively complete process, making procedural operation and outcome implementation more closely correspond.

In this system, suggestions raised by the masses or representatives enter the platform according to a fixed process, sequentially undergoing classification, assignment, supervision, and evaluation. The handling process can be viewed, and the responsible departments are more subject to supervision. For grassroots governments, which matters have been accepted and to what extent they have been handled no longer rely entirely on oral reports or paper materials, thus reducing the room for arbitrariness in responding to public opinion. By turning relatively vague performance requirements into trackable items, the democratic process becomes more transparent, and the likelihood of transforming public opinions into actual changes increases.

#### **4.3. Subject Empowerment: Incremental Cultivation of Participation Capacity of Border Subjects**

How institutional texts are designed is only one aspect of whether democratic operation can be effective; whether participants are familiar with the rules and can effectively express their opinions is another. Some border masses and grassroots representatives, influenced by historical conditions and the distribution of educational resources, still have obvious shortcomings in applying laws and policies, supervision, and deliberation. If the operational threshold is too high and the platform interface is overly complex, channels originally intended to expand participation may instead become new obstacles. In response, Yunnan's "Digital and Smart People's Congress" has made corresponding design choices: laws, regulations, and previous handling cases are integrated into the system for representatives to consult at any time; the interface is kept as simple as possible and supplemented with bilingual support, reducing the difficulty of use. Many masses have gradually become familiar with the working rules of the people's congress and their own rights paths through repeated experiences of "raising questions and seeing feedback," and their participation capacity has accumulated in this process.

---

### **5. Institutional Resilience: Enhancement of National Governance Penetration Through Digital Media**

In border ethnic areas, the work of the people's congress is connected not only to national identity and border stability but also to daily governance tasks. The integration of digital technology with the people's congress system is not intended to change the fundamental political system, but to enable the existing system to cover more comprehensively and operate more smoothly under local conditions. After standardizing and arranging the main business processes of the people's congress, Yunnan's "Digital and Smart People's Congress" can quickly summarize scattered opinions on difficult issues such as coordination of ethnic interests and border governance, reducing judgment deviations caused by incomplete information. If issues reflected through the digital platform can be consistently responded to, the masses' trust in the system will gradually strengthen. The mutual support between technology and institutions ultimately aims to enable national governance to take deeper root at the border grassroots level.

---

### **6. Realistic Obstacles to Digital Government Empowering Democratic Practice in Border Ethnic Areas**

No governance tool can be smoothly applied in any specific society. While promoting the digital transformation of government, digital government construction must also be tested by the actual feelings of the masses. [10] Border ethnic areas are not simply "peripheral areas"; here, traditional culture, ethnic relations, and national governance objectives are intertwined, making the situation more complex than in the interior. When the digital government logic emphasizing standardization and dataization enters grassroots democratic practice, it is prone to collide with local customs and grassroots working methods. The problems that arise here are often not just poor equipment or poor network connections, but rather real tensions between technological logic and local political and social realities.

### **6.1. Risk of Participation Exclusion Induced by Multidimensional "Digital Divide" in Border Areas**

For digital technology to truly serve democracy, the premise is that most people can access and use relevant platforms. However, in border ethnic areas, this premise is not always established. Academic discussions on the "digital divide" have long expanded from "whether there are devices and networks" to "whether one can use them and whether they are effective." At the border grassroots level, this gap is affecting who can more easily enter the digital democratic process.

Realistically, border rural areas are simultaneously experiencing aging and population outflow. Many masses are already not very adaptable to new platforms. Some ethnic minority masses have limited education and inconvenient language conversion; when faced with government apps or mini-programs, they often find it difficult to truly express their opinions because they do not know how to operate them. If platforms only pursue multiple functions without considering usability, democratic channels not only fail to expand but may also exclude those most in need of a voice. It should also be noted that online buzz does not equal true public opinion. Urban youth are more adept at using the internet and more likely to form concentrated voices on platforms; groups with weaker digital skills may have their expression space further compressed. If online activity is directly treated as "general public opinion," decision-making can become biased, and the feeling of being ignored among some border masses may intensify.

### **6.2. Adaptation Difficulties Between Algorithmic Logic and the Border Grassroots Bureaucratic System**

Digital government construction is mostly uniformly deployed by higher levels, emphasizing process standardization, timely response, and quantifiable results. However, border grassroots society still retains a strong "acquaintance society" character, and much work relies on face-to-face communication to advance; complex issues also require more space for consultation. If the proceduralized technical system cannot connect with grassroots practices, its operation is prone to deviation. A prominent manifestation is "heavy platform, light effectiveness": under the pressure of higher-level assessments, daily active users, response rates, and completion deadlines are often fixed as hard indicators; border grassroots units have limited personnel and resources, and some cadres have to focus more on "organizing data neatly" and "completing all procedures." For matters involving ethnic customs, land disputes, and historical legacy issues that require multiple rounds of consultation, the system often demands completion within a time limit, leading grassroots cadres to only make "procedural closure" while the actual problems may not be truly resolved. Over time, the platform may become a new burden, and democratic operation at the grassroots end may exhibit a situation of "appearing to operate but with unclear actual effects."

### **6.3. Implicit Challenges of Algorithmic Justice and Information Security to Democratic Autonomy**

After the introduction of artificial intelligence into government systems, algorithms have increasingly intervened in information screening, issue ranking, and resource allocation, which is particularly noteworthy in border multi-ethnic areas. Many existing algorithmic models are mainly trained on large-scale general data and pay insufficient attention to local social structures and ethnic cultural differences. When classifying public opinions and allocating resources, the risk of missing the appeals of specific groups is not low. Although the masses can express opinions on online platforms, initiative does not always remain in their own hands; the background push of information and the way issues are set will influence what the public can see and discuss. If platform operation lacks transparency, the transparency of the democratic process will also be weakened. Border areas are already more sensitive to information security; once government platforms experience privacy leaks or data abuse, the masses' trust in digital government may decline rapidly, and willingness to participate will diminish accordingly.

---

## **7. Optimization Paths for Enhancing Digital Democratic Effectiveness in Border Areas**

To achieve better results in digital democracy in border areas, it is impossible to expect that deploying a more complex set of technologies will automatically work. The key still lies in governance itself—how technology is used, how institutions are configured, and whether the masses can truly benefit. That is, the focus of work should gradually shift from "whether there are platforms and data" to "whether platforms are user-friendly and whether data can truly serve democratic procedures," so that technological application always revolves around democratic values rather than being led by technological logic. Intelligent technology does bring new tools and space to democratic politics, [11] but whether it can ultimately play its due role depends on whether institutional design and grassroots implementation are in place.

### **7.1. Building an Inclusive Digital System to Bridge Multidimensional Governance Gaps**

To alleviate digital participation inequality in border areas, the first step should be to consider "who can participate and who is excluded" as an important criterion for digital platform construction, rather than merely pursuing launch speed and the number of functions. Platform design should pay more attention to the actual usage conditions of the multi-

ethnic masses in border areas: interfaces should be as simple as possible, operation steps minimal, and when necessary, provide functions such as minority language recognition and voice input to reduce reading barriers. For the elderly and those with weaker digital skills, they cannot be expected to learn to use the internet on their own; grassroots Party organizations, village work teams, and volunteers can play the role of "assisting and recording on behalf of others" to transfer offline opinions into the system. At the same time, traditional channels such as letters and visits, contact stations, and courtyard meetings cannot be abolished, but should be used together with online platforms to form a multi-channel opinion collection network.

## **7.2. Driving the Logical Coupling and System Integration of Government Data and Democratic Procedures**

To solve the problem of "platforms exist but are not closely integrated with the actual work of the people's congress," the key is to let the digital system truly enter the daily work of people's congress performance and government handling, rather than creating a separate system. At the higher level, data connectivity between the people's congress performance platform and the government service platform should be promoted, so that after the masses' appeals enter the system, the responsible departments can simultaneously view relevant policies, division of responsibilities, and similar past cases, reducing the situation of "formal acceptance but actual buck-passing." The assessment methods also need adjustment: they should not only look at how fast responses are given, but also whether problems are truly resolved and whether the masses remain satisfied. For complex matters involving ethnic affairs and historical legacy issues, grassroots units should be allowed to retain necessary flexibility in handling within the institutional framework, shifting cadres' energy from "filling data and leaving traces" back to on-site consultation and conflict resolution.

In terms of algorithm application, border areas should also establish clearer norms. Functions involving public opinion analysis, issue recommendation, and resource allocation should not use "technological neutrality" as an excuse, but should embody political principles such as forging a strong sense of community for the Chinese nation in system design. Through interdisciplinary evaluation, it can be regularly checked whether the platform overlooks reasonable demands of ethnic minorities or amplifies certain biases. The more explainable and monitorable the algorithmic process is, the more likely data-assisted decision-making is to truly serve democracy rather than undermine it.

## **7.3. Shaping a New Paradigm of Integrated Online-Offline Collaborative Democratic Interaction**

Digital platforms expand the scope of participation, but the significance of "face-to-face" interaction in political communication does not disappear. Especially at the border grassroots level, much trust is still built on meeting and deliberating together. Therefore, a more feasible direction is not complete onlineization, but letting online and offline each handle their own parts and cooperate with each other.

Existing representative contact stations can be used as connecting points: online is responsible for collection, classification, and early warning; offline is responsible for dealing with complex issues involving vital interests that require repeated consultation. For example, matters involving village planning, land disputes, and ethnic customs should still be discussed face-to-face among the masses at "fireside gatherings" or "courtyard meetings"; representatives can first learn about the demands of all parties through the platform and then coordinate on site. The results of the discussions are fed back into the system for public handling and feedback, forming a cycle of "online collection—offline consultation—online supervision." Only in this way can technological convenience and local social habits avoid conflicting with each other.

---

## **8. Conclusion**

Whole-process people's democracy and digital government construction can both be understood within the process of Chinese-style modernization, and they influence and support each other. Digital government provides new tools and conditions for democratic participation, while whole-process people's democracy also clarifies the direction for digital government construction. [13]For border ethnic areas, the introduction of digital technology into grassroots democratic practice brings not only tool updates but also changes the way state power organs interact with the masses. Yunnan's "Digital and Smart People's Congress" shows that the key point of digital technology supporting democracy lies in effectively connecting scattered opinions, reducing information loss during layer-by-layer transmission, and allowing people in remote areas to enter institutionalized participation channels. At the same time, digital government construction should continue to adhere to a people-centered approach and continue efforts in expanding participation, improving responsiveness, and strengthening the rule of law. [13]The wider the application of technology, the more important it is to prevent it from deviating from democratic values.

From a deeper perspective, the participation of digital government in the construction of whole-process people's democracy actually changes the way information is transmitted and interests are expressed in grassroots society. Due

to the vast territory and scattered population distribution in border ethnic areas, and the limited transportation conditions in some areas, the masses often face real constraints when participating in public affairs, and some opinions and demands cannot enter the governance process in a timely manner. The emergence of digital platforms allows opinions originally scattered across different regions and groups to be collected through more convenient channels and, after sorting, to enter corresponding handling procedures, thereby reducing information loss in the transmission process to a certain extent and forming more stable communication links among the masses, people's congress deputies, and government departments. From the perspective of governance modernization, the significance of digital technology is not to replace the original democratic channels, but to improve operational modes on the basis of the existing institutions. Border ethnic areas are characterized by multi-ethnic coexistence, uneven regional development, and diverse social needs. Relying solely on traditional experience in governance can easily lead to insufficiently comprehensive understanding of grassroots conditions and untimely responses to problems. Digital government, through the integration and analysis of relevant information, enables governance subjects to more accurately understand the actual needs of grassroots masses, while also transforming the way the masses participate in public affairs from relatively concentrated and periodic expression to more continuous and routine participation.

In the future development of digital government construction in border ethnic areas, institutional safeguards still need further improvement. On the one hand, data regulation in the digital governance process should be strengthened, and clearer institutional arrangements should be made for data collection, use, and protection, thereby enhancing the masses' trust in digital platforms; on the other hand, the capacity of grassroots staff to use digital tools for governance work also needs to be improved, so that technology truly serves grassroots governance rather than adding extra burdens. The ultimate goal of digital government construction is not simply to demonstrate technological advancement, but to enable the masses to express their opinions more conveniently and to see their appeals responded to. From the perspective of the development requirements of whole-process people's democracy, democratic practice has gained new development space. Digital government enables mass participation to break through traditional temporal and spatial constraints, and also strengthens the connections among opinion expression, democratic consultation, and supervision feedback. However, the principal position of the people must be consistently upheld in this process, avoiding situations where data operation logic affects or even replaces democratic operation logic. Only by combining the advantages of digital technology and institutions, and by continuously responding to the actual needs of the masses in the process of technological application, can the development of governance systems and governance capacity in border ethnic areas be further promoted, and can whole-process people's democracy demonstrate more stable and sustained vitality in grassroots practice.

---

## Compliance with ethical standards

### *Disclosure of conflict of interest*

No conflict of interest to be disclosed.

---

## References

- [1] Li Sheng, Wang Shusheng, Yu Liang, Pan Liqiang. Research on the Impact of Digital Government Construction on the Intelligent Economy——A Quasi-Natural Experiment Based on the Reform of Big Data Management Institutions[J]. *Modernization of Management*, 2026, (02): 179-188.
- [2] Luo Peng. The Bodily Turn of Digital Government Construction: From Disembodied Bias to Embodied Development——An Analysis Based on the Key Points of Digital Government Construction Work in Provinces G and J over the Years[J]. *Journal of Tianjin Administration Institute*, 1-12.
- [3] Wang Ning, He Siyuan, Wu Xiao, Chen Yilin. Value Interpretation and Practical Investigation of Archives Data Governance under the Background of Digital Government Construction——A Comprehensive Analysis Based on Survey Data[J]. *Archival Science Research*, 2026, (02): 58-67.
- [4] Tao Siwen, Zhang Zihan. How Does the Digital Ecosystem Empower Common Prosperity in Border Areas?——A Dynamic QCA Analysis Based on 9 Border Provinces and Regions[J]. *Journal of Ethnology*, 2026, 17(04): 119-130+164.
- [5] Fu Ning, Lin Jie, Zhu Zhe. How Can Government Digital Platforms Get Out of the Unsustainable Dilemma?——A Comparative Case Study Based on the Ecosystem Perspective[J]. *Chinese Public Administration*, 2026, 42(03): 27-37.

- [6] Yuan Xiaoling, Zhu Xiaoke. Government Digital Governance and High-Quality Urban Development——An Analysis Based on Natural Endowments and Acquired Efforts[J]. Journal of Beijing University of Technology (Social Sciences Edition), 1-21.
- [7] Liu Linxi, Huang Zeyong. From "Digital Empowerment" to "Governance Reconstruction": The Evolutionary Logic and Practical Path of Government Digital Transformation[J]. Party and Government Research, 2026, (02): 35-44+126.
- [8] Li Weichao, Yang Yuanpu, Shen Xiaodi. Research on the Path of Generative Artificial Intelligence Empowering the Transformation and Upgrading of Digital Government Services——A Qualitative Study Based on Policy Texts[J]. Information Science, 1-21.
- [9] Chen Pengyu, Xu Jimin. Practical Reflection and Legal Approaches to the Digital Transformation of Government Governance in Ethnic Regions——Taking the Digital Government Construction of X County in Western Sichuan as an Example[J]. Journal of Ethnology, 2026, 17(02): 98-108+153.
- [10] Zhang Yu, Duan Yubo. Digital Government Performance and Citizens' Subjective Evaluation: U-Shaped Relationship and Mechanism of Action[J]. Leadership Science, 2025, (01): 101-110.
- [11] Chen Liang. The Logic, Mechanism, and Path of Digital Technology Empowering Whole-Process People's Democracy[J]. Inner Mongolia Social Sciences, 2024, 45(03): 52-61.
- [12] Duan Zhiwen, Yu Wenmei. The Internal Mechanism and Governance Path of Digital Deliberative Democracy[J]. Study Forum, 2023, (04): 78-85.
- [13] Zhai Yi, Liu Jie. The Intersection and Co-evolution of Whole-Process People's Democracy and Digital Government Construction[J]. Journal of Beijing Union University (Humanities and Social Sciences Edition), 2024, 22(01): 82-90.
- [14] Huang Wei, Chen Jiayou. The Internal Mechanism, Realistic Dilemmas, and Promotion Strategies of Digital Government Construction[J]. Reform, 2022, (11): 144-155.