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Research on the Innovative Mechanism of Grassroots Conflict Dispute Governance under Digital Empowerment-A Case Study of Yulin's "Mao Tiao Online" Platform

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Abstract: Promoting the development of grassroots conflict governance platforms and advancing the intelligent management of various social conflicts at the community level are crucial for enhancing the efficiency of grassroots governance. Against the backdrop of Yulin City's efforts to strengthen and improve the "One-Network, Three-Linkages, Two-Platforms" innovative mechanism for grassroots conflict governance, the "Mao Tiao Online" Platform has emerged as a distinctive and contextually adaptive intelligent coordination platform. Led by the Yulin Municipal Political and Legal Committee, it serves as a coordinated hub for resolving and mediating grassroots social conflicts. By integrating modern technologies such as the Internet, big data, and artificial intelligence, the platform facilitates cross-level and cross-departmental collaborative mediation, and has been recognized as an innovative case in smart governance for national political and legal intelligent construction in 2024, as well as one of the top 50 outstanding innovation cases for national digital government. Based on field interviews and surveys, this study systematically examines the operational mechanisms and practical outcomes of the "Mao Tiao Online" Platform. Notably, the platform has significantly contributed to Yulin's achievement of a 98.64% public sense of security in 2024, ranking first in the Guangxi Zhuang Autonomous Region. Furthermore, the research analyzes challenges encountered during the platform's operation and proposes targeted optimization strategies. This study aims to provide valuable insights for refining the construction of grassroots conflict governance platforms, enhancing conflict resolution capabilities, and improving governance efficiency at the community level in the digital era.

Keywords: digital empowerment; innovative mechanism; "Mao Tiao Online" Platform; grassroots governance

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1. Introduction

Yulin City has continuously strengthened and improved the construction of the "One Network, Three Linkages, and Two Platforms" innovative mechanism for grassroots conflict and dispute governance. Within this framework, the "Mao Tiao Online" Platform demonstrates unique characteristics and effectively addresses the practical needs of grassroots governance in Yulin City. Recognized in 2024 as a National Intelligent Construction of Political and Legal Affairs & Smart Governance Innovation Case, the platform serves as an intelligent conflict mediation system led by the Political and Legal Committee of Yulin City. Through the "Mao Tiao Online" system, various administrative levels and departments are interconnected to mediate emerging conflicts and disputes. In 2024, Yulin City achieved a 98.64% public sense of security, ranking first in the Guangxi Zhuang Autonomous Region for the first time, with the "Mao Tiao Online" Platform playing a pivotal role in this accomplishment [1].

Based on field interviews and research, this paper provides an in-depth investigation into the operational mechanisms and effectiveness of the "Mao Tiao Online" Platform, examines the challenges encountered during its implementation, and proposes targeted recommendations. The analysis aims to offer valuable insights for optimizing the development of grassroots conflict resolution platforms and enhancing the efficiency of community governance under Party-led initiatives.

2. Operation Mechanism and Practical Outcomes of the "Mao Tiao Online" Platform

2.1. Operation Mechanism

The "Mao Tiao Online" Platform is a digital and intelligent command and dispatch system developed using modern information technologies such as the Internet, artificial intelligence, and big data analysis. Its overall architecture comprises one database, three business centers-the Joint Handling Center for Dispute Cases, the Special Task Governance Center, and the Business Work Assessment Center-and one command cockpit.

Completed and put into operation in September 2023, the "Mao Tiao Online" Platform enables autonomous reporting, intelligent dispatch, efficient coordination, automatic early warning, real-time supervision, and traceable assessment of conflicts and disputes, achieving a "one screen to see the whole city, one network to govern the whole city" capability [2]. Additionally, the system integrates information with platforms such as the police comprehensive platform, the 12345 hotline, and the petition information management system. It improves litigation and mediation workflows, facilitates the "package resolution" of conflicts and disputes, and opens a "bottom-up" channel for reporting issues. The platform implements the "3321" work method, carrying out mediation at multiple administrative levels-three times at the village level, three times at the town level, two times at the county level, and once at the municipal level-allowing for progressive resolution and escalation when necessary [3].

For complex or intractable cases, reporters at four administrative levels-municipal, county/city/district, town/sub-district, and village/community (including functional departments, cadres, grid managers, police officers, and members of the public)-can submit cases to the corresponding "Mao Tiao Online" command centers. Cases are classified by location, type, and risk level, and tasks are assigned to appropriate mediators or functional departments. After mediation, feedback is collected from the public to determine whether further intervention or escalation is required. All mediators or departments must continuously update case information in the system, including progress, results, and public feedback, to support subsequent analysis and handling.

In practical governance, grid managers often serve as mediators, providing significant advantages for on-site conflict resolution. Mediation relies on experience, and culturally specific mechanisms such as "human relationships" and "face" (*mianzi*) play a critical role in China's traditional acquaintance society. Grid managers' familiarity with local residents allows them to resolve disputes informally, at an early stage, and at the grassroots level. Being community members themselves, grid managers possess detailed knowledge of local conditions and can establish trusting relationships with residents. This enables them to empathize with all parties, mediate conflicts in a balanced manner that is considerate of emotions, and provide practical assistance based on existing community resources.

The "Mao Tiao Online" Platform also supports multi-level collaboration, allowing the four-level command centers to handle cases vertically or escalate them to higher levels, while enabling horizontal departments to coordinate based on actual needs. For special conflict cases involving political and legal public opinion, stability-related early warnings, or long-pending petitions, the platform incorporates a special task governance process. Tasks are issued by command centers at all levels or reported by grassroots units, and can be assigned to horizontal departments according to their functions. Functional

departments report progress back to the corresponding command center, and if unresolved, cases can be escalated to higher levels for handling.

2.2. Practical Outcomes

2.2.1. Enhancing Public Emotional Belonging and Political Trust

The efficiency and effectiveness of the "Mao Tiao Online" Platform in resolving conflicts have been widely recognized by the public, strengthening trust in the government's ability to maintain social stability and provide a harmonious living environment. A safe and stable community enhances residents' emotional attachment. By June 2024, the platform had recorded 14,050 dispute cases, with 12,329 resolved through closed-loop management, achieving an 87.8% resolution rate. Additionally, 1,110 special tasks for major or complex cases were assigned, and 733 long-standing difficult cases were settled using the "special project + special team" model, contributing to residents' sense of security and well-being [4].

The construction of Yulin's "Mao Tiao Online" system not only facilitates conflict resolution and social harmony but also enhances the public image of the Yulin Municipal People's Government and strengthens political trust in the Party and government. By fostering inter-departmental collaboration in conflict resolution, the platform narrows the distance between officials and the public, providing a deeper understanding of citizens' needs and effectively addressing social issues. This demonstrates the government's innovative approach to governance and its commitment to public welfare, reinforcing political trust.

2.2.2. Building a Top-Down and Bottom-Up Information Bridge

The platform establishes an information bridge that connects top-down and bottom-up channels. Higher-level authorities can gain real-time insights into grassroots conflict dynamics, identify core issues, and allocate resources effectively. This improves understanding of grassroots conflicts, reduces information barriers, and ensures precise deployment of forces and resources to address disputes at the primary level.

As a key component of the grassroots conflict resolution system, the "Mao Tiao Online" Platform coordinates with other mediation mechanisms. In Luchuan County, a cadre work team, relying on the Comprehensive Governance Center, Dispute Mediation Center, and the "Mao Tiao Online" Platform, has been deployed to 830 grids, conducting investigations and mediations to continuously improve success rates. Various litigation cases are also channeled through the platform, enabling legal and mediation personnel to focus on guidance and diversion, reducing the growth of new litigation cases [5].

As of March 2025, the system had 17,453 registered user households, with a total of 29,458 conflicts and disputes recorded, 26,722 resolved through closed-loop linkage, 1,243 long-standing difficult cases settled, and 2,099 inter-departmental collaborations conducted [2].

3. Value Reconstruction

3.1. Reconstructing Social Values and Promoting Legal Awareness

In mediating conflicts, the platform's staff prioritize resolving disputes and promoting social harmony. They disseminate relevant legal knowledge to the public and guide residents to handle conflicts in accordance with the law. This approach helps cultivate the concept of the rule of law among citizens, encourages greater attention to harmonious interpersonal relationships and social environments, and fosters the propagation of social harmony values.

The significance of Yulin's "Mao Tiao Online" Platform extends beyond technical efficiency improvements. Its core function lies in reconstructing social relationship networks through institutionalized channels, transforming citizens from "individual interest claimants" into "participants in rule co-construction." This transformation not only

strengthens social governance effectiveness but also consolidates the spiritual foundation of urban development. Over time, it contributes to building a more resilient social ecology in Yulin and enhances the city's "soft power" during the processes of urbanization and rural revitalization.

3.2. Insufficient Emphasis on Preemptive Conflict Prevention

First, the lack of interaction and communication among community residents, coupled with limited sense of belonging and identity, increases the likelihood of conflicts. In modern urban communities, the importance of neighborhood relationships in social networks has diminished due to urbanization [6]. Residents often lack deep emotional bonds and close social connections. Following the COVID-19 pandemic, many residents have adapted to a relatively independent lifestyle. Weak interpersonal relationships mean that, when facing conflicts of interest or emotional friction, residents often lack a foundation of mutual trust, preventing timely resolution through effective communication. In such cases, disputes may escalate. Grid managers frequently adopt a "reason, emotion, and law" approach to mediation, with "emotion" at the core, reflecting the importance of human relationships in conflict resolution.

Second, limited community public space resources and varying group needs can generate conflicts. If rules for using public spaces are vague, inadequately recognized, or poorly enforced, minor issues can accumulate and escalate into major conflicts [7]. For instance, public facilities often involve determining maintenance responsibilities and cost-sharing, which can lead to disputes between residents or between residents and property management. A typical example is the "elevator monitoring installation incident," where residents agreed on the necessity of monitoring for safety, but disagreements over cost allocation created tension. Similarly, other shared infrastructure, such as roads or green spaces, may also become sources of disputes.

3.3. Insufficient Professionalism in Conflict Mediation

First, grassroots conflict mediation often suffers from a lack of professional knowledge. Mediation involves complex legal and technical expertise. For example, resolving liability disputes requires accurate interpretation of relevant clauses, determination of parties' rights and obligations, and provision of effective recommendations—all requiring solid legal knowledge. Relying solely on experience and common sense can lead to poor outcomes, low efficiency, and even escalation of disputes.

Second, higher-level authorities or relevant institutions provide insufficient guidance and support for mediation work. Without professional training, grassroots staff are often tasked with conflict resolution through the platform but lack the necessary skills and development opportunities. This limits their effectiveness, even when they work proactively. Functional departments should consider the realities of grassroots work, provide systematic training and guidance, and actively participate in mediation rather than simply assigning tasks. Only through such measures can the "Mao Tiao Online" Platform realize its full potential in conflict resolution.

4. Optimization Countermeasures for the Operation of the "Mao Tiao Online" Platform

4.1. Optimizing Platform Functions

4.1.1. Enhancing the Capability of In-depth Intelligent Data Analysis

Firstly, priority should be given to multi-source data collection. In addition to basic information on conflicts and disputes entered into the platform, such as incident types and handling statuses, attention should be paid to gathering data on community geography, public facilities, and population demographics. This enables comprehensive analysis and broadens perspectives for informed decision-making.

Secondly, an artificial intelligence-assisted analysis system should be introduced. Big data analysis tools and AI algorithms can conduct in-depth mining of conflict and dispute data, supporting technology-driven problem-solving. For example, cluster analysis can accurately identify areas with frequent conflicts and high-risk groups, providing strong data support for precise community governance. Similarly, association rule algorithms can analyze potential connections between different conflicts, revealing common causes and informing subsequent mediation and prevention strategies [8].

4.1.2. Planning for the Introduction of Large Language Models

Deploying or custom-developing a secure intelligent decision-support system based on large language models (LLMs) can enhance the platform's functionality. Such a system can learn from historical conflict mediation cases to help staff quickly identify core issues, generate preliminary mediation suggestions, broaden problem-solving perspectives, and improve the efficiency and quality of mediation.

For instance, in psychological analysis, AI-driven sentiment analysis can help mediators better understand the emotional states of involved parties and adopt more appropriate strategies for conflicts with emotional components [9].

4.1.3. Improving Holistic Resource Allocation Analysis and Decision Support

Based on intelligent analysis and early warning results, a decision-support system should provide recommendations for community work plans and resource allocation. This enhances efficiency and reduces waste of human, material, and financial resources. For example, anticipating hotspots and conflict types allows the pre-assignment of professional mediators and resources, enabling targeted prevention and intervention.

Data and analysis results should be visualized through an intuitive interface, allowing grassroots staff to understand community conflict trends and make well-informed, forward-looking decisions.

4.2. Strengthening Preemptive Prevention of Conflict Mediation

4.2.1. Promoting Interaction and Communication Among Community Residents

Communities should organize diverse activities to foster interaction and mutual understanding among residents, thereby building trust and a sense of belonging. Research indicates that the warm and approachable attitude of community staff contributes significantly to strengthening residents' emotional bonds. Staff serve as effective links for communication, leveraging both their official role and their status as community insiders to facilitate engagement.

Observations suggest that staff work primarily through emotional empathy and rational guidance. Their accessibility and enthusiasm enable elderly residents and others to engage comfortably, supporting harmonious relationships within the community.

4.2.2. Improving the Construction and Management of Community Facilities

Proactive measures should be implemented to prevent infrastructure-related conflicts. A regular inspection system should be established to identify and repair aging or damaged facilities. During the planning and construction of new or renovated facilities, residents' opinions should be fully considered to ensure alignment with community needs.

A clear facility maintenance and management system should define responsibilities and procedures. This helps prevent disputes arising from shared facilities, such as elevators, roads, or green spaces, and mitigates potential conflicts between residents and property management.

4.2.3. Strengthening Policy Advocacy and Communication

For policies that may generate interest-related disputes, advocacy and transparent communication are essential. Communities should provide open interpretation through multiple channels, including policy briefings, expert consultations, bulletin boards, and official online accounts. These measures help residents understand policy content and alleviate concerns regarding personal interests.

Additionally, a resident feedback mechanism should be established to solicit suggestions, monitor concerns, and adjust policies accordingly. This encourages community support and reduces the likelihood of conflicts.

4.3. *Enhancing the Professionalism of Conflict Mediation*

4.3.1. Conducting Professional Training and Learning Initiatives

To strengthen staff capabilities, professional training and learning activities should be implemented. Regular, systematic training programs should cover law, psychology, and mediation techniques. Expert lectures and case-based simulations enhance practical skills and professional literacy. Staff should have access to learning resources and platforms to support continuous self-directed skill development. A structured exchange mechanism allows staff to share experiences and collectively improve mediation abilities.

4.3.2. Establishment of a Professional Guidance and Support Mechanism

Higher-level authorities or institutions should provide professional guidance and support for grassroots mediation work. Expert consultation teams can offer online guidance for complex cases, and on-site expert visits can provide hands-on mentorship. Collaboration with universities and research institutions can integrate the latest research into practical mediation, enhancing the scientific and professional quality of conflict resolution.

5. Conclusion

The "Mao Tiao Online" Platform in Yulin City represents an innovative approach to grassroots conflict and dispute governance, integrating modern technologies such as the Internet, big data, and artificial intelligence. Its operation has demonstrated significant practical outcomes, including improved conflict resolution efficiency, enhanced residents' sense of security, strengthened political trust, and the establishment of effective top-down and bottom-up communication channels.

At the social level, the platform contributes to the reconstruction of social values, the promotion of legal awareness, and the cultivation of harmonious community relationships. However, challenges remain, including insufficient preemptive conflict prevention, limited community interaction, and the need to further professionalize mediation staff.

To address these challenges, targeted optimization strategies have been proposed, focusing on enhancing intelligent data analysis, introducing large language model-based decision support, improving resource allocation, strengthening community interaction, refining facility management, and providing professional training and guidance for staff. These measures aim to enhance both the operational effectiveness of the platform and the quality of grassroots governance.

In summary, the "Mao Tiao Online" Platform exemplifies a data-driven, technology-enabled, and people-centered approach to conflict mediation. Its ongoing refinement can serve as a valuable reference for other regions seeking to build resilient, intelligent, and socially responsive grassroots governance systems in the digital era.

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