

New Strategies for Disseminating Xinjiang's Image: An Analysis of the Propagation Path and Mechanism of Government Affairs New Media for "Xinjiang is a Great Place"

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Abstract: Regional cultural tourism new media is vital for promoting regional tourism images and industrial development. As a core multi-ethnic settlement in northwest China, Xinjiang's cultural tourism industry was listed in the 2024 "Top Ten Industrial Clusters", with unique natural and ethnic cultural resources of high communication value. This study selects 26,892 valid user comments from the Douyin account "Xinjiang is a Great Place" (Jan 2024 - Aug 2025) as samples, adopting sentiment computing, LDA topic modeling, and RFM user profiling to analyze communication effects, bottlenecks, and propose a "content-interaction-technology" three-dimensional optimization strategy. Results show 47.2% positive sentiment in Xinjiang's tourism communication, with cultural content (e.g., festivals) achieving 62.8% positive comments—outperforming natural landscapes. However, unbalanced content structure, obstructed interaction, and insufficient technological empowerment remain challenges. Findings provide practical references for multi-ethnic regional cultural tourism new media operations.

1. Introduction

Amid the digital economy's rapid advancement, regional cultural tourism new media has become a key channel for brand building. In 2024, domestic short video platforms recorded over 800 billion cultural tourism-related views (63% of total communication content), far exceeding other formats. Yet, as traffic dividends peak, the "production-over-operation" model faces low playback, high repetition, and poor user retention.

Xinjiang's cultural tourism industry thrived in 2024 (302 million tourists, 14% YoY growth; 8.5% of regional economic output). Boasting premium natural landscapes (Nalati Grassland, Sayram Lake) and ethnic resources (Twelve Muqam, Eid al-Adha), it faces unique new media challenges: superficial cultural interpretation, cognitive biases, and fragmented practical information, hindering consumption conversion. The Douyin account "Xinjiang is a Great Place" reflects common issues of cultural tourism new media in western multi-ethnic areas.

Existing studies have limitations: macro/single-case biases ignoring UGC implicit needs, insufficient attention to multi-ethnic contexts, and isolated research on "content-interaction-technology" synergy. This study adopts a user-demand-driven perspective, using 26,892 UGCs to optimize the account's collaborative mechanism, address pain points, and construct a multi-ethnic adaptive propagation path.

2. Literature Review

Digital economy-driven cultural tourism new media research focuses on macro orientation, communication forms, technical support, and user needs, but lacks integrated research on multi-ethnic areas.

Macro orientation studies^[8-9] emphasize development value but lack practical strategies for

multi-ethnic regions, while research on government affairs new media's viral spread and trust construction^[1-2] provides theoretical references for platform operation. Short video research^[3-11] confirms efficiency advantages but overlooks multi-ethnic content differentiation, and film-enabled tourism destination interaction models^[13] inspire cross-ethnic user engagement design. Technology studies^[5-6] discuss big data/AI applications, with digital cultural tourism frameworks^[16] offering guidance for regional adaptability. User demand research^[4] highlights UGC value, and cross-cultural analysis of social media tourism promotion^[14] reveals the importance of demand segmentation. Additionally, studies on cultural heritage and regional economic resilience^[15] and public sentiment governance in government social media^[10] supplement the research context of cultural tourism new media operation.

Existing research lacks systematic linkage of the four dimensions and practical plans for multi-ethnic "content-interaction-technology" synergy. This study fills this gap.

3. Research Data and Methods

3.1 Data Collection and Preprocessing

Samples include user comments from the Douyin account "Xinjiang is a Great Place" (Jan 2024 - Aug 2025), covering tourism seasons and cultural nodes. Eleven fields were collected via Octopus RPA (platform-compliant, user ID desensitized). Data cleaning (deduplication, invalid filtering, text standardization) yielded 26,892 valid samples (98.6% effective rate), concentrated in Xinjiang (25.8%), Guangdong (7.7%), and Sichuan (4.9%), with seasonal peaks (see Table 1).

Table 1 Distribution of Valid Samples by Region and Time (Unit: pieces, %).

Dimension	Category	Sample Size	Proportion	Core Characteristics
Regional Distribution	Northwest multi-ethnic settlements	6938	25.8	Focus on cultural identity
	Guangdong, Sichuan, Jiangsu	2071, 1325, 1291	7.7, 4.9, 4.8	Focus on high-end experience and practical information
	Other provinces/overseas	15267	56.7	Focus on landscape aesthetics
Time Distribution	Peak season (June-August)	11294	42.0	High comment volume, more service complaints
	Off-season (December-February)	5378	20.0	Neutral inquiry comments account for 67.8%
	Cultural nodes (August, October)	10220	38.0	Positive comments account for over 60%

3.2 Research Methods

3.2.1 Sentiment Tendency Analysis

A "VADER model + manual calibration" framework adapts to short video UGC traits. A scenario-specific sentiment dictionary (286 positive, 142 negative terms) supports polarity classification and intensity scoring. Double-blind calibration confirms 0.87 Kappa coefficient and 92.3% accuracy.

3.2.2 Topic Clustering Analysis

LDA model identifies 5 optimal topics (k=5) via perplexity curve. TF-IDF-calculated keywords and cultural tourism scenario naming yield 89.7% cumulative explanatory power, covering the "cognition-decision-identification" demand chain.

3.2.3 User Behavior Analysis

Based on RFM logic, a three-dimensional user value system ("timeliness-frequency-quality") is built. Multi-dimensional cross-analysis constructs user portraits to support differentiated strategies.

3.2.4 Horizontal Comparative Analysis

Benchmarking "Shuiyun Jiangsu" and "Anyi Sichuan", comparisons cover content structure, cultural depth, practical info, interaction, and technology to extract cross-regional experiences. To systematically implement the research, the technical flow of the four core methods is shown in Figure 1.

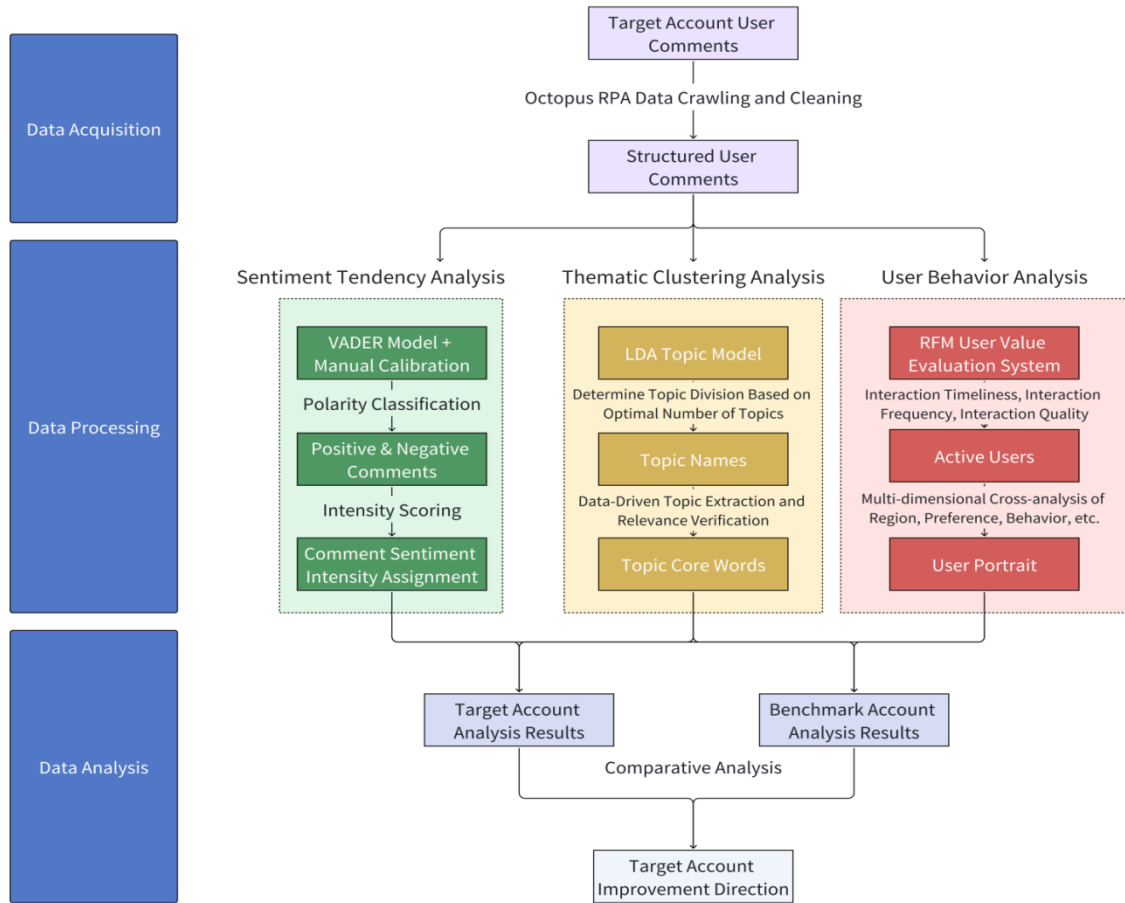


Figure 1 Research Method Flowchart.

4. Analysis of Audience Cognition and Communication Effects Based on UGC

4.1 Sentiment Polarity Distribution

Sentiment analysis shows "dominant positive, high neutral, minimal negative" traits: 12,689 positive comments (47.2%, avg. intensity 4.2), 13,201 neutral (49.1%), 1,002 negative (3.7%, avg. intensity 1.8). Festival activities (62.8%) and folk culture (54.3%) outperform natural scenery (38.6%) in positive comments. Positive sentiment reaches 72.5% at cultural nodes, dropping to 29.3% in off-seasons(see Table 2).

Table 2 Distribution of Audience Sentiment Polarity (Unit: pieces, %, points).

Sentiment Polarity	Number of Comments	Proportion	Average Emotional Intensity	Core Keywords	Typical Scenarios
Positive	12689	47.2	4.2	Shocking, want to go, recommend	Dance festival, Dolan concert
Neutral	13201	49.1	3.0	Opening time, tickets, route	Duku Highway strategy inquiry
Negative	1002	3.7	1.8	Congestion, price increase, repetition	Peak season scenic spot accommodation, content homogenization

4.2 Topic Clustering

The LDA model pinpoints five core topics: "Landscape Aesthetics" (30.2%, core terms: "snow mountain", "grassland"), "Practical Information" (22.2%, "strategy", "transportation"), "Cultural Experience" (23.1%, "dance festival", "Muqam"), "Emotional Resonance" (16.1%, "want to go", "moved"), and "Improvement Suggestions" (8.3%, "repetition", "interaction").

Semantic network analysis indicates "Cultural Experience" shares the closest correlation with "Emotional Resonance" (edge weight 0.87), while "Practical Information" weakly correlates with other topics. User characteristic cross-analysis reveals: local Xinjiang users focus on "Cultural Experience", eastern users prioritize "Practical Information", and central users lean toward "Landscape Aesthetics"; high-consumption users demand more cultural content, while low-consumption users emphasize practical information(see Table 3).

Table 3 LDA Topic Clustering Results (Unit: pieces, %).

Topic No.	Topic Name	Core Keywords (TF-IDF Weight)	Number of Comments	Proportion	Demand Level
1	Landscape Aesthetics	Snow mountain (0.82), Grassland (0.79)	8124	30.2	Cognitive understanding
2	Cultural Experience	Dance festival (0.85), Dolan (0.81)	6215	23.1	Emotional resonance
3	Practical Information	Strategy (0.88), Transportation (0.83)	5983	22.2	Action decision
4	Emotional Resonance	Want to go (0.91), Shocking (0.87)	4327	16.1	Emotional identification
5	Improvement Suggestions	Repetition (0.76), Congestion (0.68)	2243	8.3	Optimization expectation

4.3 User Behavior Characteristics

RFM identifies 286 active users (3.2% of commenters, 1,432 comments/5.3%)—Pareto-aligned (5.7 comments/user, 41.2% interaction)—concentrated in Xinjiang (34.3%), Guangdong (11.2%), Sichuan (9.8%) (see Table 4). Notably, 8.7% of eastern users ask about travel convenience (0.3% local); 6.2% of central users complain about costly accommodation (1.8% local), reflecting info asymmetry.

Table 4 Regional Distribution of Active Users (Unit: person, %, times).

Regional Level	Provinces/Regions	Number of Active Users	Proportion	Average Number of Comments	Core Preferred Topics
Core Source Areas	Northwest multi-ethnic settlements	98	34.3	6.2	Cultural Experience
High-Potential Source Areas	Guangdong, Sichuan, Jiangsu	32, 28, 25	30.4	5.8	Practical Information
Other Areas	Other provinces/overseas	123	43.0	4.5	Landscape Aesthetics

5. Current Communication Status and Bottleneck Diagnosis

5.1 Communication Achievements

As the matrix core, "Xinjiang is a Great Place" logged over 5 billion cross-platform views for 2024 Spring Festival Gala Kashgar content; 14 prefectural/city + scenic spot/influencer accounts form an official-folk dual-drive loop.The "Encounter Series" (drone aerial/time-lapse) secured 91.5% positive comments; ICH content uses inheritor storytelling to fill cultural cognition gaps; Sayram Lake sunrise live broadcast (5.72 million views) extends communication to consumption decisions.2024 data: 1 billion provincial views correlate with 87% Xinjiang tourism search growth; Kashgar, Ili and other key areas saw significant tourist increases, with strong influencer conversion.

5.2 Core Bottlenecks

62.3% of landscape content targets well-known spots (niche <5%); cultural content (21.7%, 83.6% superficial) draws 34.2% "good-looking but not understandable" comments; practical content (3.5%) is fragmented, unfit for travel decisions. Comment response rate: 12.8% (78.3% delayed >72h, 95% templated, <5% substantive), cutting follow-up interaction by 42.6% for unresponded users; co-creation channels <2% (78.3% active users unable to contribute); weak community operation lacks hierarchical management and user belonging.

6. Optimization Strategies

6.1 Construct a Hierarchical Content Matrix

Based on Maslow's hierarchy, a "user demand pyramid" (practical info → cultural cognition → emotional resonance) is built, with the middle layer including 4K+expert ICH interpretation (targeting 30% cultural content ratio) and VR-restored archaeological/historical short videos, and the deep layer encompassing cross-ethnic mutual assistance stories (aiming for 80% positive sentiment), "time capsule" activities (targeting 50% sharing growth), and ecological/cultural protection content (seeking 40% user retention increase).

6.2 Upgrade Full-Link Interaction

To boost user stickiness and belonging, a full-link "response-co-creation-community" mechanism is established. Response level: Launch "Xinjiang Cultural Tourism Assistant" AI customer service (24/7 Q&A), refine live Q&A/reservation features, and build a hierarchical feedback system for timely needs addressing. Co-creation: Gather high-quality UGC via spring/autumn short video contests (core account distribution) and monthly topic voting for tailored content, raising crowd-funded content proportion. Community: Segment exclusive communities by user traits (full-time online activity operation) and roll out a cultural tourism experience officer program to drive engagement via rights/traffic incentives.

6.3 Technological Empowerment System

Achieve precise, immersive, collaborative communication by breaking technical bottlenecks through data, application, and channel synergy. Data layer: Unify cross-platform interfaces for 3D user portraits, set negative comment surge warnings, and optimize content push via A/B testing. Immersive layer: Develop a multilingual Xinjiang cultural VR hall (integrating ICH/historical scenes), roll out AR navigation in core scenic spots, and build AI personalized strategy tools. Collaboration layer: Craft platform-specific content, unify conversion links with embedded strategy/reservation entrances, and construct an "interest seeding - in-depth understanding - reservation" closed loop to boost cross-platform conversion.

7. Discussion, Implications and Research Limitations

7.1 Implications from Benchmark Account Comparison

Benchmarking leading accounts ("Shuiyun Jiangsu", "Anyi Sichuan", "The Palace Museum") provides multi-dimensional insights: Content-wise, adopt the "person + skill + life" narrative to highlight Muqam inheritors' daily details, turning ethnic culture from abstract symbols into tangible scenarios. Interaction-wise, replicate "Anyi Sichuan's" experience officer closed-loop, establish a hierarchical system, and convert users from consumers to communicators via exclusive rights and submission green channels. Technology-wise, emulate "The Palace Museum's" technology-culture integration to develop digital Nalati VR scenes and Muqam VR halls, making technology a genuine cultural experience carrier.

7.2 Universal Suggestions for Multi-Ethnic Areas

Combining cross-cultural communication strategies^[7] and insights into the influence of natural

and cultural environments on tourism demand^[12], four universal suggestions for multi-ethnic cultural tourism new media are proposed: Cultural empowerment—go beyond symbolic display, explore cultural cores via life narratives, build an ethnic expert database and ICH digital memory bank. Differentiated communication—tailor content: cultural identity for locals, safety documentaries for eastern high-consumption users, affordable strategies for central cost-sensitive users, and self-driving convenience for western neighbors. Technological bridging—balance universality and personalization: voice strategies for the elderly, AR for youth, in-depth content for educated users. Data integration—construct a full-link data center, analyze needs-content-consumption correlations, and establish a visualization dashboard for decision-making.

7.3 Theoretical Supplements and Extensions

This study offers theoretical supplements: First, it identifies a three-stage UGC user demand progression ("practical information - cultural cognition - emotional resonance"), enriching the application of the Uses and Gratifications Theory in regional cultural tourism. Second, it proposes a "provincial coordination - prefectural characteristics - folk empowerment" framework, correcting the "scale-first" bias in matrix theory. Third, it reveals the "needs - mechanism - stickiness" coupling logic for user participation, supplementing the User Participation Theory. Fourth, it puts forward three technological empowerment principles, providing theoretical references for the technical application of cultural tourism new media in non-eastern regions.

7.4 Research Limitations and Prospects

This study has three limitations: Single-platform focus (Douyin) limits comprehensive communication reflection; insufficient implicit emotion detection in sentiment analysis; cross-sectional data prevents long-term effect observation and omits ethnic cultural digital distortion, technological alienation, and cross-border communication. Future research can conduct multi-platform integrated and longitudinal studies, optimize sentiment analysis models; explore extensions including ethnic cultural digital communication norms, cultural subjectivity protection, cross-border multimodal communication, and "Belt and Road" precise communication to provide more comprehensive references.

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