

Navigating the Quadruple Media Landscape: A Study on Guangdong Universities' Social Media Communication Strategies and Effectiveness

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Abstract: This study investigates the implementation of the “Quadruple Media” framework (Whole Process, Whole Harvest, Whole Personnel, Whole Effect) by universities in Guangdong, China, across major social media platforms (Weibo, Douyin, Little Red Book) in China. Utilizing a mixed-methods approach encompassing topic modeling (LDA), sentiment analysis, user surveys, and case studies of eight representative universities, the research evaluates the current state of content strategy, user engagement, and perceived effectiveness. Findings reveal a significant disconnect between official university content themes (e.g., admissions, campus ceremonies) and primary student concerns (e.g., dormitory conditions, facilities, employment prospects). While universities demonstrate nascent efforts in multi-platform coverage and multi-format content, challenges persist in strategic synergy, deep interaction, innovative multimedia application, and systematic impact evaluation.

Keywords: Quadruple Media; University Social Media; Content Strategy; User Engagement; Topic Modeling; Sentiment Analysis; Guangdong Universities

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1. Introduction

The pervasive influence of social media has fundamentally altered the landscape of organizational communication, and higher education institutions (HEIs) are no exception. Universities globally leverage platforms like Weibo, Douyin (TikTok China), and Little Red Book (Xiaohongshu) to shape their brand image, engage with current and prospective students, disseminate information, and manage reputational risk^[1]. In China, this strategic imperative is further underscored by the national policy emphasis on strengthening all-media communication systems, as outlined in the directives of the 20th National Congress of the Communist Party of China.

Guangdong Province, a higher education powerhouse hosting 176 universities intensely competing for quality students, presents a critical context for examining these dynamics. With rising student numbers and the high cost of traditional offline recruitment, social media has become an indispensable tool for universities to project their image and attract applicants. The “Quadruple Media” framework (Whole Process Media, Whole Harvest Media, Whole Personnel

Media, Whole Effect Media) provides a comprehensive lens for this analysis, emphasizing continuous narrative, multi-modal presentation, participatory creation, and effective assessment.

While existing research has explored university social media use, analyzed short video propagation for image-building, and examined public opinion evolution using LDA models^[2], a gap remains in systematically applying the Quadruple Media framework to evaluate university strategies holistically across multiple platforms within a specific regional context. This study addresses this gap by posing the following research questions:

RQ1: What is the current state of “Quadruple Media” implementation among Guangdong universities regarding content themes, user engagement, and platform synergy?

RQ2: What disparities exist between the content supplied by universities and the information demands of students?

This paper investigates these questions through a multi-method analysis of seven representative Guangdong universities, offering empirical insights and practical recommendations for optimizing social media communication in higher education.

2. Research Methodology

This study employed a mixed-methods approach, combining computational and empirical methods to ensure triangulation and depth of analysis.

2.1. Data Collection

Official University Accounts: Approximately 6,203 posts from official accounts on Weibo (660 posts), Douyin (2,803 posts), and Little Red Book (Xiaohongshu, 1,294 posts) from eight selected Guangdong universities covering September 2024 to August 2025.

User Comments: 5,416 user comments from these platforms, plus a specialized dataset of 2,000 top comments from a high-engagement Xiaohongshu post titled “Which to Avoid in Guangdong Colleges”^[3] to probe student concerns.

Questionnaire Survey: Valid responses from 160 undergraduate students in Guangdong (January 2025) assessing attention, interaction behaviors, and perceived communication effectiveness.

2.2. Data Analysis Methods

Topic Modeling (LDA): Latent Dirichlet Allocation (LDA) was utilized to identify latent topics within the collected social media posts. Coherence scores and perplexity were calculated to determine the optimal number of topics (K=6 for most platforms/analyses).

Sentiment Analysis: A lexicon-based approach classified user comments into positive, neutral, and negative categories to gauge emotional response.

Descriptive Statistical Analysis: Survey responses and basic engagement metrics (likes, comments, shares) were analyzed quantitatively.

2.3. Ethical Considerations

Data was anonymized during collection and analysis. Survey participation was voluntary and anonymous.

3. Results

3.1. RQ1: Quadruple Media Implementation Status

Whole Process Media: Universities demonstrated basic competency in planning continuous content for key nodes like admissions season. For instance, some universities successfully created a serialized narrative across platforms (Bilibili, Douyin,

Xiaohongshu) from campus previews to opening ceremony. However, strategic synergy was lacking: most content across Weibo, Douyin, and Xiaohongshu was homogeneous, failing to adapt to specific platform strengths. Organizational structures (communication department leading, schools/student organizations participating) often resulted in inefficient coordination.

Whole Harvest Media: Short video was the dominant format. While some leading universities experimented with advanced formats, most institutions, particularly vocational colleges, used video primarily for event recording rather than innovative storytelling. Technical infusion was limited; only small part of cases employed VR/AR/AI.

Whole Personnel Media: Most universities had student teams involved in content creation. However, participatory mechanisms were ineffective. A significant supply-demand disconnect was identified: Official content focused on admissions, ideological/political education, and honors, while student concerns centered on dormitory conditions, facilities, and employment prospects (See **Table 1**). Only small part of topics aligned with official themes. Surveys indicated low deep interaction: 85.71% liked, but only 42.86% commented and 57.14% shared^[4].

Table 1. Topical Disconnect between Official Content and Student Concerns

Aspect	Official Content Supply(Themes)	Student Demand (Key Concerns from Xiaohongshu)
Primary Focus	Admissions, Enrollment, Campus Ceremonies	Dormitory Conditions & Facilities
Secondary Focus	Ideological/Political Education, Honors	Professional Prospects & Employment
Tertiary Focus	Academic Research, Campus Culture	Overall School Environment & Location
Additional Concerns	Student Activities, Alumni Stories	Safety, Regulations, Costs, Campus Life

Whole Effect Media: Evaluation remained primitive. All institutions tracked basic metrics (views, likes), but only 37.5% had begun developing multi-dimensional assessment systems incorporating interaction rates, sentiment indices, or conversion rates. Data-driven decision-making was notably absent^[4].

3.2. RQ2: Engagement and Sentiment Analysis

Survey results revealed high visibility (86.88% followed official accounts, primarily WeChat Official Accounts 89.38% and Weibo 63.75%) but low interaction frequency. Only 17.5% engaged daily, while 39.38% engaged weekly and 16.25% rarely. Liking (85.71%) dominated over sharing (57.14%) or commenting (42.86%)^[4]. Sentiment analysis of comments of Douyin accounts showed generally positive tones, but negative sentiments (ranging from 11.8% to 17.6% across universities) were often linked to discussions about administrative issues, exam pressure, or pandemic controls, frequently found on non-official channels like “Avoid” posts on social media(See **Table 2**).

Table 2. Sentiment analysis of comments of Seven Universities’ Douyin accounts (N=5416)

University	Positive	Neutral	Negative
University A	48.9	33.5	17.6
University B	45.6	40.9	13.5
University C	36.5	47.2	16.3
University D	43.8	39.9	16.3
University E	44.9	39.8	15.3
University F	33.9	53.5	12.6
University G	34.3	53.8	11.8

4. Discussion

This study reveals that Guangdong universities are in the early stages of Quadruple Media implementation, characterized by uncoordinated strategies, a significant content supply-demand gap, and underutilization of technological and participatory potential.

4.1. The Strategic Synergy Deficit

Despite multi-platform presence, the high degree of content homogenization indicates a lack of tailored platform strategies. This contradicts the core principle of Whole Process Media, which requires adaptive, platform-specific narratives for continuous and effective coverage^[5]. The centralized, often rigid, management structure might hinder the agility needed for effective cross-platform coordination.

4.2. The Content Gap and Trust Erosion

The stark contrast between official content (focused on promotion and formal education) and student priorities (practical daily concerns and future careers) is critical. This mismatch not only reduces engagement efficacy but may also drive students to seek information from unofficial, potentially less reliable sources, as seen in the popularity of “Avoid” posts. This can erode trust and hinder the development of a genuine sense of community.

4.3. The Illusion of Participation

While student teams contribute to content, the low rates of commenting and sharing, coupled with the minimal alignment between UGC and official themes, suggest that “participation” is often superficial. Whole Personnel Media requires genuine co-creation and responsive dialogue, not just token involvement in production. The high percentage of neutral content, often administrative notices, further highlights the struggle to create compelling, interactive content.

4.4. Technological Application and Evaluation Lag

The limited use of advanced technologies like AI, VR, and data analytics represents a missed opportunity for innovative multi-modal storytelling and personalized engagement. The reliance on basic metrics for evaluation neglects deeper impact assessment, preventing strategic refinement and true realization of Whole Effect Media.

4.5. Implications for Practice

Universities must move beyond treating social media as mere broadcasting channels. Strategies need to be student-centric, addressing their practical informational needs about campus life, learning, and future careers through engaging formats. Leveraging student creators not just for production but also for ideation can bridge the content gap. Investing in data analytics capabilities is crucial for measuring true impact and guiding strategy.

5. Conclusion

This study provides a comprehensive assessment of Guangdong universities’ social media practices through the Quadruple Media lens. The findings confirm that while universities are actively using social media, their approaches are often fragmented, lack strategic depth, and fail to align effectively with audience needs. The core challenges include content supply-demand misalignment, insufficient deep interaction, and underdeveloped technological and evaluative capabilities. By refining strategic planning, enhancing user engagement, strengthening brand development, innovating content creation and management, and upgrading technical infrastructure, universities can effectively boost communication effectiveness while elevating brand influence and student recognition. Future research could further explore the long-term impact of university new media strategies, analyze how different approaches affect diverse user demographics, and investigate applications of AIGC technologies in academic communication systems.

Limitations and Future Research: This study focuses on Guangdong province. Future research could expand to a national comparative analysis. Furthermore, investigating the effectiveness of specific intervention strategies, like implementing the proposed model, would be valuable. Longitudinal studies tracking changes in engagement and sentiment following strategic shifts are also recommended.

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