

Synergistic Logic and Value Co-creation Mechanism of Digital Generation of Rural Sports Event IP in Qiaoxiang Areas

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Abstract: In the context of the deep convergence of the "Digital China" strategy and rural revitalization, rural sports events have transcended the mere scope of athletics to become new engines for reshaping rural cultural subjectivity and activating county-level economies. As a unique socio-cultural field characterized by transnational networks, "Qiaoxiang" (overseas Chinese hometowns) presents a distinct "dual-space" feature in the IP (Intellectual Property) development process of its rural sports events. Based on Service-Dominant Logic (S-D Logic) and the theory of the production of space, this paper abandons the traditional quantitative measurement paradigm. Instead, through in-depth qualitative analysis, it explores the internal mechanisms by which digital technology intervenes in the generation of sports event IP in Qiaoxiang areas. The study posits that the digital generation of Qiaoxiang sports event IP is not merely a technological superposition but a process of deep entanglement and reconstruction between physical and digital spaces, as well as between local rural societies and overseas diasporic communities. In this process, digital technology acts as a critical mediating variable, reshaping the temporal continuity and spatial extension of events, and constructing emotional connections based on "strong ties" and commercial connections based on "weak ties." Furthermore, the paper analyzes the synergistic logic among the government, the market, village collectives, and overseas Chinese in IP generation, revealing the co-creation mechanism that transforms "attention resources" into "cultural identity" and ultimately into "industrial value." The study finds that current Qiaoxiang sports IPs face challenges such as the "digital alienation" of cultural symbols, synergistic dilemmas in interest distribution, and communication ruptures in cross-cultural contexts. Accordingly, this paper proposes pathways such as constructing a "virtual-real symbiotic" scene ecology, establishing a "multi-party co-governance" interest contract, and creating a "glocal" communication matrix. These aims provide theoretical insights and practical solutions for the revitalization of rural sports culture with distinctive geopolitical characteristics in the process of Chinese-style modernization.

Keywords: Qiaoxiang Field, Rural Sports Events, IP Development, Digital Generation, Synergistic Logic, Value Co-creation.

1. Introduction and Research Perspective

1.1. Research Origin: The "Breakout" of Rural Sports and the "Aphasia" of Qiaoxiang

The report of the 20th National Congress of the Communist Party of China explicitly proposed to "comprehensively promote rural revitalization" and "accelerate the construction of Digital China," providing macroscopic guidance for the development of rural society in the new era. In recent years, phenomenal rural sports events represented by the "Village BA" (Village Basketball Association) and "Village Super League" in Guizhou have not only broken the cultural barriers of the urban-rural dual structure but also demonstrated to the academic community the astonishing vitality of local cultural resources empowered by digital media. The success of these events is essentially an efficient coupling of internal rural social capital and external digital traffic capital, marking the entry of rural sports into a stage of high-quality development characterized by branding and IP development.

However, amidst this magnificent wave of rural sports revival, "Qiaoxiang," as a unique socio-cultural geographic unit in China, finds its sports events in an awkward position of having "categories without brands" and "history without

traffic," despite their long history and profound heritage. Taking the Wuyi region of Jiangmen as an example, known as the "Hometown of Volleyball" and "Hometown of Martial Arts," its village-level volleyball leagues and dragon boat races have a broad mass base locally and serve the special function of maintaining emotional ties among millions of overseas Chinese. Yet, from the perspective of the digital economy, these highly recognizable cultural resources have not yet been fully transformed into mature IPs with market competitiveness and international communication power.

The specificity of Qiaoxiang lies in its social structure where "dispersion" and "aggregation" coexist. Traditional research on rural sports events has largely been confined to the closed rural society, focusing on their entertainment or governance functions. The development of digital technology, however, provides the possibility to break geographical boundaries and reconnect the "present" villagers with the "online" overseas Chinese. Therefore, exploring how digital technology empowers rural sports events in the special field of Qiaoxiang, transforming them from local folk activities into digital IPs with cross-cultural influence, is not only a practical need to respond to the rural revitalization strategy but also an important attempt to enrich the localized theories of Chinese sports sociology and communication studies.

1.2. Core Concept Definition and Theoretical Perspective

1.2.1. The Specificity of the Qiaoxiang Field

Borrowing Bourdieu's concept of "field," Qiaoxiang is not merely a geographical administrative region but a relational space interwoven by kinship, geography, profession, and transnational networks. In this field, sports events are not only arenas for physical confrontation but also cultural spaces for the game of clan forces, emotional exchange between home and abroad, and the collision of Chinese and Western cultures. Its specificity is manifested in the "duality" of the audience (local residents and overseas Chinese), the "transnational nature" of resources, and the "hybridity" of cultural identity.

1.2.2. Digital Generation of Rural Sports Event IP

In this paper, "IP" (Intellectual Property) transcends the legal definition. It refers to the sum of highly recognizable cultural symbols, fan bases with intrinsic traffic, and commercial values expandable across media. The "digital generation" of IP refers to the process of using digital technologies such as big data, cloud computing, artificial intelligence, and virtual reality to extract, encode, reconstruct, and disseminate the cultural core of traditional sports events, giving them a second life in virtual space and feeding back into the operation of physical space.

1.2.3. Theoretical Tools: Service-Dominant Logic and Synergistic Governance

Traditional Goods-Dominant Logic (G-D Logic) views events as "products" where spectators are mere consumers. In contrast, Service-Dominant Logic (S-D Logic) argues that value is not created solely by the producer (event organizer) and delivered to the consumer but is co-created by all participants (including spectators, sponsors, and media) during the usage process [1]. In the digital age, this co-creation relationship is even more significant. Meanwhile, given that rural sports events involve multiple stakeholders, the concepts of "order parameters" and "self-organization" in Synergetics provide powerful analytical tools for analyzing the interaction mechanisms among various subjects.

2. Resource Endowment and Digital Pain Points of Rural Sports Events in Qiaoxiang

2.1. The "Dual Genes" of Qiaoxiang Sports Culture

The vitality of Qiaoxiang sports events stems from their unique "dual genes": the gene of the soil (rural) and the gene of the sea (overseas).

On the one hand, it is deeply rooted in the clan structure of traditional agricultural civilization. In Qiaoxiang areas like Jiangmen, volleyball matches during the Spring Festival or dragon boat races during the Dragon Boat Festival are often organized by natural villages or clans. This pattern of "every village has a court, every village has a team" endows events with innate community mobilization capabilities and endogenous order. Each event is a confirmation of the internal order of the clan and an accumulation of social capital.

On the other hand, it is profoundly influenced by overseas immigrant culture. Unlike inland villages, the introduction of sports projects in Qiaoxiang often accompanies the return of overseas Chinese. For example, the rise of Taishan volleyball is inseparable from the rules and equipment brought back

from the West by overseas Chinese. This "imported product" has been internalized into the cultural tradition of Qiaoxiang over a century of localization. This gives Qiaoxiang sports events a natural "international style" and "openness" in cultural morphology, laying a genetic foundation for the international dissemination of IP.

2.2. The "Digital Divide" and "Communication Fault" in the IP Process

Despite superior resource endowments, the current IP process of rural sports events in Qiaoxiang faces severe structural dilemmas, mainly reflected in dislocations across three dimensions:

2.2.1. Misalignment in the Scene Dimension: Physical "Heat" vs. Digital "Cold"

During the fishing moratorium or Spring Festival, offline sports events in Qiaoxiang are often bustling with crowds. However, this popularity shows a precipitous drop in the digital space. Due to the lack of professional digital operation teams, most events remain at the traditional publicity stage of "banners and flyers" or simple mobile phone live streaming, lacking digital presentation with multi-camera angles, high definition, and strong interaction. This "heat" in physical space cannot be effectively transformed into "heat" in digital space through bitstreams, leading to a severe underestimation of the traffic value of the events.

2.2.2. Misalignment in the Narrative Dimension: Grand Narrative vs. Micro-Perception

Current event publicity often adopts official press release-style grand narratives, focusing on administrative elements such as the scale of activities and the attendance of leaders. In the digital media era, audiences (especially young audiences and new generations of overseas Chinese) prefer micro, emotional, and personalized narratives. The lack of excavation of vivid character stories in the events (such as the "Barefoot Ball King" or "Veteran Players") makes it difficult to personify cultural symbols, failing to establish deep emotional connections in the hearts of the audience, resulting in blurred IP images and a lack of stickiness.

2.2.3. Misalignment in the Connection Dimension: Local Strong Ties vs. Network Weak Ties

The traditional sustaining force of Qiaoxiang events is "strong ties" based on kinship and geography. However, the large-scale expansion of IP relies on "weak tie" connections on the Internet. Currently, due to the lack of operational strategies targeting digital communities, events cannot break through the circle of local acquaintance society, making it difficult to attract external tourists, sponsors, and a broad audience without local ancestry. Domestic and international connections also mostly rely on traditional WeChat groups of clan associations, lacking the construction of public domain traffic pools, resulting in a low ceiling for the commercial value of the events.

3. Digital Generation Logic: Spatiotemporal Reconstruction, Symbolic Coding, and Relational Reorganization

The process of digital technology intervening in the IP development of rural sports events in Qiaoxiang is essentially a profound socio-technical reconstruction. This chapter analyzes its internal generation logic from four dimensions:

time, space, symbols, and relationships.

3.1. Spatiotemporal Reconstruction: Field Extension from "On-site" to "On-air"

Traditional rural sports events are strictly constrained by physical space and time; spectators must arrive at a specific village (village court or river channel) at a specific time to participate. Digital technology first breaks this limitation, realizing the infinite extension of the field.

3.1.1. The "Liquefaction" of Space

According to Castells' theory of the "Space of Flows," digital live streaming technology transforms fixed rural physical space into fluid digital image space. For overseas Chinese far away in foreign lands, through VR panoramic live streaming or high-definition low-latency 5G live streaming, they can participate in hometown events with a sense of "presence," breaking through geographical barriers. This reshaping of space expands the audience seating of Qiaoxiang sports events from "under the banyan tree at the village entrance" to "in front of screens globally," greatly expanding the IP's audience base.

3.1.2. The "Fragmentation" and "Immortality" of Time

The value of traditional events decays rapidly as the competition ends. The digital generation mechanism, through forms such as short video clips, highlight replays, and secondary creation remixes, shatters continuous linear game time and embeds it into the fragmented life time of users. Simultaneously, the establishment of digital archives (such as cloud image libraries) allows event history to be permanently preserved and accessed at any time. This extension of time enables the IP value of events to continue fermenting during the non-competition period, forming a "long-tail effect."

3.2. Symbolic Coding: From "Rural Memory" to "Digital Token"

The core of IP is cultural symbols. The digital generation process is essentially a process of digital extraction, coding, and translation of the local culture of Qiaoxiang.

3.2.1. Digital Extraction of Cultural Genes

Abstract spiritual cores contained in Qiaoxiang sports, such as "patriotism and love for hometown," "striving and forging ahead," and "clan unity," need to be transformed into perceptible audio-visual symbols through digital technology. For example, using AIGC (Artificial Intelligence Generated Content) technology to design event mascots with Qiaoxiang architectural elements (such as Diaolou and Qilou), or producing dialect commentaries and traditional sacrificial rituals into standardized digital content products. This process makes implicit cultural genes explicit, lowering the threshold for cross-cultural understanding.

3.2.2. Reproduction of Interactive Symbols

Symbols in the digital media environment are not output unidirectionally but generated interactively. Bullet screens (Danmu), comments, likes, and user-generated content (UGC) endow original symbols with new meanings. For instance, a brilliant spike action by a villager player might be made into a meme by netizens and spread; this meme becomes a new derivative symbol of the IP. In this process, the traditionally serious clan culture is deconstructed and integrated with the entertainment spirit of the Internet, making it more acceptable to the younger generation [2].

3.3. Relational Reorganization: Community Connection Based on "Digital Nostalgia"

In the Qiaoxiang field, digital technology is not just a communication tool but an adhesive for social relationships. It reorganizes the connection between overseas Chinese and their hometowns, generating a new type of community relationship based on "digital nostalgia."

3.3.1. Digital Maintenance of Emotional Bonds

For the new generation of overseas Chinese, traditional clan concepts may fade, but hometown images seen through high-definition live streaming and local dialect commentaries can instantly awaken their collective memory. Digital events become the catalyst for activating "cultural identity." This emotional connection established through the screen, although virtual, triggers real psychological resonance, laying a psychological foundation for subsequent donations to assist competitions and returning home to seek roots.

3.3.2. The Fusion of Interest-based and Geo-based Communities

Traditional events rely on geopolitical mobilization. Digital IP can attract "interest groups" interested in specific sports projects (such as volleyball and dragon boats). When "interest" and "geography" intersect on digital platforms, a hybrid community with a more complex structure is formed. This community structure retains high loyalty (from geography) and possesses strong expansibility (from interest), serving as the core traffic pool for the realization of IP commercial value.

4. Synergistic Logic: Role Positioning and Interaction Mechanisms of Multiple Subjects

The digital generation of rural sports event IP in Qiaoxiang is not a solo act by a single subject but the result of the game and synergy among the government, the market, society (village collectives), and overseas communities. This chapter uses Synergetics to analyze the synergistic logic of this complex system.

4.1. Government: From "Administrator" to "Meta-Governor"

Under the traditional model, local governments are often the direct organizers of events, undertaking too many administrative functions, leading to a low degree of marketization. Under synergistic logic, the role of the government should transform into a rule-maker and platform builder (meta-governance).

Its core functions lie in: First, providing the public goods of digital infrastructure, such as the construction of rural 5G base stations and public digital cultural platforms. Second, formulating the legal framework and policy incentives for IP protection, regulating the confirmation and trading of intangible assets. Third, conducting top-level design for brand endorsement, integrating scattered village-level events into a regional brand event system (such as the "Wuyi Volleyball Super League") to avoid homogenous competition.

4.2. Market Enterprises: From "Sponsors" to "IP Operators"

Market subjects (including digital technology companies, sports operation companies, and MCN agencies) are the core forces for IP value discovery and appreciation. Their

synergistic logic lies in using professional technology and operational capabilities to solve the problem of insufficient internal capacity in rural areas.

Enterprises upgrade events by introducing commercial and technological capital. For example, introducing professional data analysis systems to improve competitive viewing and using algorithmic recommendation mechanisms to achieve precision marketing. The appeal of enterprises lies in economic benefits, achieving profitability through IP authorization, live streaming e-commerce, and cultural tourism drainage. In this process, enterprises must respect the authenticity of local culture to avoid excessive commercialization eroding the cultural foundation of the events.

4.3. Village Collectives and Villagers: From "Passive Participants" to "Content Producers"

In the digital age, every villager is a potential communication node. As the owners of event resources, village collectives are the source of IP legitimacy.

Synergistic logic requires establishing the principal status of villagers. On the one hand, through the "village-enterprise cooperation" model, village collectives participate with venues and brands as shares, sharing IP value-added income to stimulate their enthusiasm. On the other hand, villagers are encouraged to use mobile phones to become "rural influencers" or "grassroots anchors." The original ecological commentary and recording by villagers are often more infectious than the official perspective. This "decentralized" content production model greatly enriches the IP ecosystem [3].

4.4. Overseas Chinese: From "Donors" to "Co-creators" and "Communicators"

This is the most unique synergistic subject in the Qiaoxiang field. Traditionally, overseas Chinese mostly supported hometown events by donating money and goods. In the generation of digital IP, the role of overseas Chinese has undergone a qualitative leap.

They are natural communication nodes for IP overseas. Utilizing their social networks (such as Facebook, Instagram, TikTok), overseas Chinese can push hometown events to the international stage, breaking cultural discounts. At the same time, overseas Chinese associations can act as "transnational partners," participating in the hosting of overseas divisions of events or the development of peripheral products. This two-way interactive synergistic mechanism transforms unidirectional "blood transfusion" into bidirectional "hematopoiesis."

4.5. Coupling Mechanism of Synergistic Interaction

The synergy of the above four subjects relies on a composite coupling mechanism of "Interest-Emotion-Contract":

Interest Coupling: Through reasonable business model design, ensure that all parties can obtain returns matching their inputs in the IP industry chain (Economic Capital).

Emotional Coupling: Using nostalgia and cultural identity as links to condense consensus at home and abroad, reducing transaction costs in cooperation (Social Capital).

Technological Coupling: Relying on a unified digital

platform (such as event mini-programs, data middle platforms) to achieve transparent and efficient flow of information and funds (Technological Capital).

5. Value Co-creation Mechanism: The Transformation Path from Traffic to Retention

Based on Service-Dominant Logic, the value of rural sports event IP in Qiaoxiang is not pre-existing but dynamically generated in interaction. This chapter divides the value co-creation process into three progressive levels: Attention Value, Cultural Identity Value, and Industrial Ecological Value.

5.1. Co-creation of Attention Value: Aggregation and Distribution of Traffic

In the primary stage of the digital economy, value co-creation manifests as the competition for user attention. Through the viral spread of short videos, interactive lottery draws in live broadcast rooms, and the operation of trending topics, all parties jointly create a "digital carnival." Here, the government provides official sources, enterprises provide traffic pushers, villagers provide original materials, and overseas Chinese provide overseas volume. This multi-source aggregated traffic rapidly enhances the visibility of the event. However, traffic alone is not enough; without deep conversion, traffic is easily lost.

5.2. Co-creation of Cultural Identity Value: Precipitation and Sublimation of Emotion

The second level of co-creation lies in transforming transient attention into lasting emotional identity. Through digital narration, values such as "struggle," "unity," and "root-seeking" contained in the events are implanted into the minds of the audience. For example, developing a "Cloud Genealogy" connected with the event registration system allows participants and spectators to complete a root-seeking journey while watching the game. This deep cultural interaction enhances community cohesion and improves the cultural soft power of Qiaoxiang. For the new generation of overseas Chinese, this identity value is priceless; it resolves the identity anxiety of "who am I" and realizes the intergenerational transmission of excellent traditional Chinese culture [4].

5.3. Co-creation of Industrial Ecological Value: Fusion and Monetization of Scenes

The highest level of co-creation is the formation of a "Sports+" industrial ecological loop.

"Sports + Cultural Tourism": Online IP drainage leading to offline physical consumption. By issuing digital consumption vouchers and designing internet-famous check-in points, online viewers are converted into offline tourists, driving the sales of homestays, catering, and characteristic agricultural products.

"Sports + Intangible Cultural Heritage (ICH)": Combining event IP with Qiaoxiang ICH (such as Xinhui dried tangerine peel, Maolong brush) to develop co-branded cultural and creative products, achieving two-way empowerment.

"Sports + Digital Collectibles": Issuing event commemorative badges or key moment NFTs based on blockchain technology to excavate the digital asset value of IP.

In this stage, value co-creation manifests as "symbiosis":

the event becomes popular, the village becomes wealthy, the enterprise makes a profit, and the culture comes alive. This is a sustainable positive-sum game.

6. Realistic Challenges and Optimization Paths

Despite the self-consistent logic, the digital generation of rural sports event IP in Qiaoxiang still faces many obstructions in practical operation.

6.1. Realistic Challenges

6.1.1. Digital Alienation and Ethical Risks

coerced by traffic logic, some events may show tendencies of excessive performance and vulgarization, sacrificing sports spirit and the seriousness of local culture for the sake of attracting eyeballs. This "digital alienation" may lead to the loss of cultural subjectivity, triggering resentment from villagers and misunderstandings from overseas Chinese.

6.1.2. Synergistic Dilemmas and Interest Games

Due to the lack of a mature interest distribution mechanism, contradictions often arise between village collectives and operating enterprises. Enterprises may complain about low cooperation from villagers, while villagers may complain that enterprises take away most of the profits. In addition, unclear ownership of data (does it belong to the platform, the government, or the village collective?) has also become a potential legal risk point.

6.1.3. Contextual Discount in International Communication

Although overseas Chinese serve as intermediaries, entering the mainstream vision of the host country still faces challenges of language, cultural habits, and media bias. Current communication mostly remains within the Chinese circle, making it difficult to achieve true cross-cultural "breakout."

6.2. Optimization Paths

6.2.1. Adhering to Cultural Centrality, Constructing a "Virtual-Real Symbiotic" Scene Ecology

The principle of "Content is King, Technology is Auxiliary" must be established. Digital means should serve to display the unique charm of Qiaoxiang culture rather than usurping the host's role. It is suggested to establish a graded protection list for event IP to protect the authenticity of core rituals. At the same time, AR/VR technology should be used to enhance the on-site experience, ensuring the consistency of online and offline experiences, and building a "Metaverse" stadium where virtuality and reality merge.

6.2.2. Perfecting Contract Mechanisms, Establishing a "Multi-party Co-governance" Structure

Establish a "Rural Sports Event IP Governance Committee" guided by the government, led by industry associations, and participated in by multiple parties. Formulate standardized cooperation templates to clarify data property rights, brand authorization, and profit-sharing ratios. In particular, explore the "Digital Villager" system to grant overseas Chinese and "cloud fans" who have long followed the events certain governance participation rights (such as voting rights), enhancing their sense of ownership [5].

6.2.3. Implementing Precision Communication, Creating a "Glocal" Communication Matrix

Adopt a "Glocal" (Global + Local) communication strategy.

Customize differentiated communication content for audiences in different countries and regions. For example, for Southeast Asia, emphasize geographical proximity and clan culture; for Europe and America, focus on sports competitive spirit and multicultural experience. Cultivate a group of composite "Qiaoxiang International Communication Officers" who understand foreign languages, sports, and technology, to tell the story of rural China in internationally common languages.

7. Conclusion

The digital generation of rural sports event IP in the Qiaoxiang field is a complex systematic project. It differs from both purely commercial sports events and general rural folk activities. It is a deep dialogue and reconstruction between traditional rural society and modern digital society, as well as between local physical space and transnational flow space, empowered by digital technology.

Research in this paper indicates that through spatiotemporal reconstruction, symbolic coding, and relational reorganization, digital technology can effectively activate dormant Qiaoxiang sports resources. Under the synergistic action of the government, market, society, and overseas Chinese, through the value co-creation mechanism of attention, cultural identity, and industrial ecology, rural sports events are expected to become a cultural bridge connecting China and foreign countries and an industrial pillar for rural revitalization.

In future practices, we need to be vigilant against the arrogance of technology and the greed of capital, always adhere to the principal status of farmers and cultural confidence, and explore a path of modernization for rural sports that possesses both Chinese characteristics and an international perspective. This not only has guiding significance for Qiaoxiang areas like Jiangmen but also provides a universal theoretical reference for the vast rural areas of China to utilize digital technology to vitalize traditional cultural resources.

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References

- [1] Vargo, S. L., & Lusch, R. F. (2016). Institutions and axioms: an extension and update of service-dominant logic. *Journal of the Academy of Marketing Science*, 44(1), 5-23.
- [2] Chen, H., & Dong, J. (2023). Logic and path of digital technology empowering the communication of rural sports culture. *Journal of Physical Education*, 30(5), 45-51.
- [3] Li, Y., & Wang, J. (2022). Realistic dilemma and path selection of rural sports event development under the rural revitalization strategy. *China Sport Science*, 42(2), 15-23.
- [4] Liu, Y., & Zhang, J. (2021). Diaspora and identity: Research on overseas Chinese sports communication in the digital media era. *Journalism & Communication*, 28(9), 88-99.

[5] Wang, X., & Li, S. (2024). The logic of digital governance and the reconstruction of rural social capital behind the "Village

BA" phenomenon. Chinese Public Administration, (1), 125-133.